

January 30<sup>th</sup>, 2014

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

Dear Ms. Walli:

**RE: EB-2013-0365 – Union Gas Limited – 2014 Rates – Interrogatory Responses**

Please find attached Union's responses to the EB-2013-0365 interrogatories.

Should you have any questions, please contact me at 519-436-5476.

Yours truly,

*[original signed by]*

Chris Ripley  
Manager, Regulatory Applications

cc: Crawford Smith (Torys)  
EB-2013-0365 Intervenors

UNION GAS LIMITED

Answer to Interrogatory from  
Board Staff

Reference: Exhibit A, Tab 1, page 9

Union has provided rate adjustments for 2014 by rate class related to the Parkway West project. Union has forecasted the in-service date as 2014 and accordingly included certain rate impacts in 2014 rates.

- a) The Parkway West evidence (EB-2012-0433) indicates that the Parkway West project will be in-service in 2015. Please explain the discrepancy between the Parkway West evidence and the evidence in the current proceeding.
  - b) Please explain the reasons for including rate impacts related to the Parkway West project in 2014 rates if the project is forecasted to be in-service in 2015.
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**Response:**

- a) There is no discrepancy. As per the July 3, 2013 update of the Parkway West (EB-2012-0433) evidence (p. 5, Paragraph 10), Union is proposing to build annual costs associated with the Project into in-franchise delivery rates and ex-franchise transportation rates effective January 1, 2014, based on the cost estimates. The Parkway West project consists of a loss of critical unit compressor (Parkway C) as well as other facilities including upgrades to existing Union transmission lines and the Enbridge Measurement station. The planned in-service date of the loss of critical unit compressor is November 1, 2015. The Enbridge Measurement and Control station is planned to be in-service in November of 2014 (EB-2012-0433 evidence p. 97, Paragraph 7) and as a result, costs were built into rates starting in 2014. The revenue requirement varies each year as shown at Exhibit A, Tab 1, Appendix G in EB-2013-0365. In 2014, a net revenue sufficiency exists as the taxes related to utility timing difference are negative because the capital cost allowance deduction in arriving at taxable income exceeds the provision of book depreciation in the year.
- b) Please see part a).

UNION GAS LIMITED

Answer to Interrogatory from  
Board Staff

Reference: Exhibit A, Tab 1, page 11

Union has provided total bill impacts for typical residential customers for 2014. Schedule 7 of the Working Papers shows a significant decline for residential customers in the Northern and Eastern franchise areas. Please provide reasons for the significant decline in the Northern and Eastern areas as compared to a slight increase for southern customers.

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**Response:**

Please see Attachment 1 for the percentage rate impacts of the drivers affecting Union's proposed 2014 rates for Rate 01 and Rate M1. This information can also be found at Exhibit A, Tab 1, Rate Order Working Papers, Schedule 5.

The main driver for the decrease in proposed Rate 01 delivery rates as compared to the increase in proposed Rate M1 delivery rates is the normalized average consumption ("NAC") volume adjustments.

As shown at Exhibit A, Tab 1, Rate Order Working Papers, Schedule 12, the NAC volume adjustment for the Rate 01 rate class is an increase of 4.8%. As a result of this volume adjustment, the total billing units used for ratemaking purposes has increased by 42,542  $10^3\text{m}^3$ . Accordingly, proposed Rate 01 delivery rates are decreasing by 4.6%.

The NAC volume adjustment for the Rate M1 rate class is a decrease of 1.0%. As a result of this volume adjustment, the total billing units used for ratemaking purposes has decreased by 28,570  $10^3\text{m}^3$ . Accordingly, proposed Rate M1 delivery rates are increasing by 1.2%, of which 1.0% is due to the NAC volume adjustment.

2014 Proposed Rates - Rate Impact Drivers  
Effective January 1, 2014

Line No.	Particulars	Rate 01 (a)	Rate M1 (b)
1	One-Time Adjustments Settlement Agreement	(0.5%)	(0.3%)
2	Application of Price Cap Index	0.5%	0.5%
3	2014 Tax-Related Adjustments	0.1%	0.1%
4	2014 DSM	0.0%	0.0%
5	2014 Capital Pass Throughs	(0.1%)	(0.1%)
6	NAC Volume Adjustments	(4.6%)	1.0%
7	Total	(4.6%)	1.2%

UNION GAS LIMITED

Answer to Interrogatory from  
Board Staff

Reference: Exhibit A, Tab 1, pages 19-21

In accordance with the Board's directive in EB-2011-0210, Union has reviewed the usage of the Kirkwall Station and the allocation of Kirkwall metering costs. Union in its evidence has indicated that it is not proposing any changes to the allocation of Kirkwall metering costs. Although the Kirkwall Station allows for bidirectional flow, Union has indicated that the Kirkwall metering facilities are required to meet easterly demands on the Dawn-Parkway transmission system on design day.

With the changing North American gas supply dynamics and customer requests for new services, Union has made modification to some of its infrastructure to accommodate for bi-directional flows of natural gas.

- a) Why does Union consider the cost allocation methodology to be appropriate considering that its assets are being used in a different way than originally intended?
- b) Does Union intend to review the cost allocation methodology at the next rebasing to better reflect actual flows of natural gas within its system?
- c) Please provide a description of the methodology and associated allocated costs by rate class assuming the costs of the Kirkwall metering station are allocated to recognize the bidirectional flow.

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**Response:**

- a) The cost allocation methodology for the Kirkwall Station is appropriate as it reflects cost causality and is consistent with the allocation of other Dawn-Parkway transmission demand-related costs.

In its EBRO 493/494 Decision, the Board approved Union's cost allocation methodology which allocates Dawn-Parkway demand-related costs to rate classes (including the Kirkwall Station) in proportion to distance weighted design day demands. The Board recognized that even though the Dawn-Parkway system allows for bi-directional flow, the transmission system is designed to meet easterly design day demands.

In 2012, Union's Kirkwall Station was modified to allow for bi-directional flow. With these modifications, both the Dawn-Parkway transmission system and the Kirkwall Station allow for bi-directional flow, but continue to be designed to meet easterly design day demands.

Union's proposal to continue to allocate costs using distance weighted design day demands is consistent with its Board-approved cost allocation methodologies and recognizes that despite the recent Kirkwall Station modifications, the Kirkwall Station continues to be designed to meet easterly design day demands.

- b) Yes, Union intends to review the cost allocation methodology at its next rebasing proceeding.

Union expects that the Dawn-Parkway transmission system (including the Kirkwall Station) will continue to be designed to meet easterly design day demands and that the current Board-approved cost allocation methodology will continue to reflect cost causality.

- c) Please see Attachment 1.

If Kirkwall Station costs were allocated based on bi-directional demands to and from Kirkwall, 98% of the costs would be allocated to the M12 rate class and 2% would be allocated to Union South in-franchise rate classes. Assuming estimated Kirkwall Station 2013 Board-approved costs of \$1.570 million, the allocation to Rate M12 would be \$1.536 million and the allocation to Union South in-franchise rate classes would be \$0.034 million.

UNION GAS LIMITED  
Cost Allocation of the Estimated 2013 Kirkwall Station Costs using Bi-Directional Demands

Line No.	Particulars	2013 Board-Approved Demands to/from Kirkwall		Bi-Directional Kirkwall Station Cost Allocation
		(10 <sup>3</sup> m <sup>3</sup> ) (a)	(%) (b)	(\$000's) (c) (2)
	M12/C1 Demands			
1	Dawn to Kirkwall	12,905		
2	Kirkwall to Parkway (1)	6,973		
3	Kirkwall to Dawn	1,661		
4	Parkway to Kirkwall	3,400		
5	Total M12/C1 Demands	24,939	98%	1,536
6	Union South In-franchise	559	2%	34
7	Total (line 5 + line 6)	25,498	100%	1,570

Notes:

- (1) The demands assume that all M12-X easterly demands are Dawn to Parkway, including the forecasted M12-X Kirkwall to Parkway demands of 1,661 10<sup>3</sup>m<sup>3</sup>.
- (2) Estimated 2013 Kirkwall Station costs allocated in proportion to column a).

UNION GAS LIMITED

Answer to Interrogatory from  
Board Staff

Reference: Exhibit A, Tab 2, page 5

In its evidence, Union has indicated that it has updated allocators in 2013 as per the directions of the Board in EB-2011-0210. Union has further stated that any changes to the allocators are reflected in the cost allocations for the annual earning sharing calculation.

In the Board's EB-2011-0210 Decision and Order, the Board stated at page 79:

“With respect to FRPO’s argument that an update is also required to the general plant allocation, the Board finds that it does not have sufficient evidence on this issue to make this finding. While the Board is of the view that there may or may not be an under-allocation of general plant to Union’s non-utility storage operation, the quantum of that under-allocation, if any, is not clear from the evidence in this proceeding. Therefore, the Board will not direct Union to make an update to the general plant allocation for the purpose of setting 2013 rates.”

The Board further stated at page 80:

“The Board believes that it should have a robust evidentiary record in Union’s 2014 rates proceeding on all issues related to the allocation of storage costs between utility and non-utility storage. The Board notes that, as part of Union’s 2014 rates filing, it will revisit the allocation of all storage related costs between Union’s utility and non-utility storage operations. At that time, the Board may also order further updates to the allocation factors (including the general plant allocation factor).”

- a) Please indicate whether Union’s updated general plant allocators for non-utility storage have been reflected in base rates. If not, please explain how the impact of the updated general plant allocators is passed onto ratepayers considering the scenarios where (i) there is no earning sharing; and (ii) earning sharing has been triggered. Please provide a detailed response.
- b) Please provide the dollar impact to the 2014 revenue requirement based on the updated general plant allocators including O&M expenses.

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**Response:**

- a) Union’s updated general plant allocators for non-utility storage have not been reflected in base rates.

Scenarios:



- i) If there were no earnings sharing, the impact of updating the general plant allocators would not be credited to ratepayers.
  - ii) If there were earnings sharing, either 50% or 90% of the impact would be credited to ratepayers in accordance with the Board-approved earning sharing mechanism.
- b) Updating the general plant allocators results in a 2014 revenue requirement decrease of \$380,000.

UNION GAS LIMITED

Answer to Interrogatory from  
Board Staff

Reference: Exhibit A, Tab 4

Some direct purchase customers of Union currently purchase capacity mainly to fulfil their Parkway delivery obligation. What capacity is related to customers moving gas from Dawn to Parkway to fulfil their current Parkway delivery obligation?

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**Response:**

There are seven direct purchase customers that hold eight M12 Dawn to Parkway transportation contracts in the amount of 186 TJ/d and have a Parkway delivery obligation. Union does not know with certainty that these customers are using this capacity to meet their Parkway delivery obligation. The total Parkway delivery obligation held by these seven customers is 184 TJ/d as per Tab 4, p. 26, Line 3.

The table below lists the contract detail for the eight contracts and is derived from Union's online posting of transportation contracts.

**In-franchise M12 Contract Holders**

<b>Customer Name</b>	<b>Contract Identifier</b>	<b>Receipt Point</b>	<b>Delivery Point</b>	<b>Quantity (GJ/d)</b>	<b>Start Date</b>	<b>End Date</b>	<b>Negotiated Rate</b>	<b>Affiliate</b>
TransAlta Cogeneration, L.P.	M12081	Dawn	Parkway	11,809	01-Nov-06	31-Oct-16	N	N
U.S. Steel Canada Inc.	M12085	Dawn	Parkway	17,351	01-Nov-06	31-Oct-18	N	N
The Corporation of the City of Kitchener	M12090	Dawn	Parkway	4,000	01-Nov-06	31-Oct-16	N	N
TransCanada Power, a Division of TransCanada Energy Ltd.	M12131	Dawn	Parkway	132,000	01-Nov-09	31-Oct-18	N	N
Ag Energy Co-operative Ltd.	M12151	Dawn	Parkway	1,600	01-Nov-08	31-Oct-20	N	N
Greenfield Specialty Alcohols Inc.	M12156	Dawn	Parkway	3,000	01-Nov-08	31-Oct-19	N	N
Ag Energy Co-operative Ltd.	M12167	Dawn	Parkway	1,900	01-Nov-11	31-Oct-21	N	N
Suncor Energy Products Partnership Produits Suncor Energie, S.E.N.C.	M12217	Dawn	Parkway	15,000	01-Nov-11	31-Oct-16	N	N
Total =				186,660				

UNION GAS LIMITED

Answer to Interrogatory from  
Board Staff

Reference: Exhibit A, Tab 4

In its evidence, Union has stated that it intends to eliminate the Parkway delivery obligation over time.

- a) If Union's proposal is accepted, would it mean that direct purchase customers would be obligated to deliver at Dawn or would the customers have an option to select their delivery point (Dawn or Parkway)?
- b) Has Union contacted its customers to determine whether there is a portion of customers interested in continuing to deliver at Parkway?
- c) Has Union conducted any market research to determine if direct purchase customers would be willing to continue delivering at Parkway under certain conditions such as incentives or credits? Has Union explored other options in consultation with direct purchase customers? If not, please provide reasons for not doing so.

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**Response:**

- a) Union will provide customers an option to elect to shift a portion of their Parkway delivery obligation to Dawn each year there is incremental capacity available. Once the customer makes the election and it is implemented that election will be permanent. The obligation will remain in place until such time as there is another election opportunity, at which time the customer could elect to shift a further portion of their Parkway delivery obligation to Dawn.
- b) Given the economics of buying gas at Dawn, as outlined at Exhibit B2.7, Union expects most, if not all, customers would elect Dawn when given the opportunity. This has been confirmed through discussions with some customers, discussions at the Parkway Obligation Working Group Meetings and through industry associations.
- c) No, Union has not conducted market research to determine if direct purchase customers would be willing to continue delivering gas at Parkway. Union's proposal is to eliminate the need for customers to physically deliver gas at Parkway. As discussed at Exhibit A, Tab 4, pp. 10 – 13, Union paid customers with a Parkway delivery obligation a Delivery Commitment Credit ("DCC") until the Board's decision in RP-2002-0130, phased this credit out starting in 2003. Union ruled out going back to a DCC as a possible solution, given the Board's previous decision.

UNION GAS LIMITED

Answer to Interrogatory from  
Board Staff

Reference: Exhibit A, Tab 4

Please provide the dollar impact of Union's proposal to eliminate or reduce the Parkway delivery obligation on residential customers for each of the years from 2014 to 2018. Please also confirm that there are no rate impacts in 2014 as a result of reducing the Parkway delivery obligation.

**Response:**

Please see Attachment 1 for the annual bill impacts of Union's Parkway delivery obligation proposal on in-franchise rate classes from 2014 to 2019. Please see Attachment 2 for the cost allocation summary supporting the annual bill impacts.

Please see Table 1 below for a summary of the annual bill impacts of Union's proposal on the average Rate M1 and Rate 01 residential customers consuming 2,200 m<sup>3</sup> per year from 2014 to 2019.

Union is not proposing adjustments to its 2014 proposed rates to reflect its Parkway delivery obligation proposal. Union proposes to recover the 2014 rate impacts of its proposal through a new deferral account.

Table 1  
2014 - 2019 Parkway Delivery Obligation Proposal Impacts on the  
Average Residential Customer in Rate M1 and Rate 01  
Based on Annual Consumption of 2,200 m<sup>3</sup>

Line No.	Year	Rate M1		Rate 01	
		(\$)	(%)	(\$)	(%)
		(a)	(b)	(c)	(d)
1	2014	2.24	0.3%	0.01	0.0%
2	2015	2.95	0.4%	0.02	0.0%
3	2016	3.03	0.4%	0.02	0.0%
4	2017	3.10	0.4%	(0.00)	0.0%
5	2018	3.56	0.5%	(0.04)	0.0%
6	2019	5.58	0.8%	(0.04)	0.0%

UNION GAS LIMITED  
2014 to 2019 Summary of the Parkway Delivery Obligation Proposal  
Bill Impacts by Rate Class

Line No.	Particulars		2014				2015				2016			
			Cumulative Bill Impact (1)				Cumulative Bill Impact (1)				Cumulative Bill Impact (1)			
			Delivery (\$)	Deferral (\$)	Total (\$)	(%)	Delivery (\$)	Deferral (\$)	Total (\$)	(%)	Delivery (\$)	Deferral (\$)	Total (\$)	(%)
			(a)	(b)	(c) = (a + b)	(d)	(e)	(f)	(g) = (e + f)	(h)	(i)	(j)	(k) = (i + j)	(l)
1	M1	Small	0.00	2.24	2.24	0.3%	2.95	0.00	2.95	0.4%	3.07	(0.05)	3.03	0.4%
2	M2	Small	0.00	53.84	53.84	0.4%	82.35	0.00	82.35	0.6%	85.66	(1.20)	84.46	0.6%
3		Large	0.00	224.31	224.31	0.4%	343.11	0.00	343.11	0.6%	356.92	(4.99)	351.93	0.7%
4	M4	Small	0.00	725.32	725.32	0.4%	968.16	0.00	968.16	0.5%	1,003.32	(24.15)	979.17	0.5%
5		Large	0.00	9,947.22	9,947.22	0.4%	12,226.13	0.00	12,226.13	0.5%	12,664.98	(331.16)	12,333.82	0.6%
6	M5	Small	0.00	107.57	107.57	0.1%	136.37	0.00	136.37	0.1%	136.22	(12.25)	123.97	0.1%
7		Large	0.00	847.54	847.54	0.1%	1,074.43	0.00	1,074.43	0.1%	1,073.27	(96.52)	976.75	0.1%
8	M7	Small	0.00	35,967.63	35,967.63	0.6%	32,546.80	0.00	32,546.80	0.5%	33,749.00	(1,078.83)	32,670.16	0.5%
9		Large	0.00	51,953.24	51,953.24	0.5%	104,479.93	0.00	104,479.93	1.0%	108,449.60	(1,558.31)	106,891.29	1.0%
10	M9	Small	0.00	6,539.89	6,539.89	0.5%	12,753.62	0.00	12,753.62	1.0%	13,191.90	(265.90)	12,925.99	1.0%
11		Large	0.00	18,987.31	18,987.31	0.5%	37,959.02	0.00	37,959.02	1.0%	39,264.43	(772.00)	38,492.42	1.1%
12	M10	Average	0.00	624.68	624.68	3.1%	832.65	0.00	832.65	4.1%	872.53	(1.51)	871.03	4.3%
13	T1	Small	0.00	2,888.36	2,888.36	0.2%	4,441.94	0.00	4,441.94	0.3%	4,566.80	(158.26)	4,408.53	0.3%
14		Average	0.00	4,432.34	4,432.34	0.2%	6,681.78	0.00	6,681.78	0.3%	6,869.75	(242.87)	6,626.89	0.3%
15		Large	0.00	9,819.75	9,819.75	0.2%	14,162.31	0.00	14,162.31	0.3%	14,560.85	(538.06)	14,022.79	0.3%
16	T2	Small	0.00	14,645.82	14,645.82	0.1%	20,058.81	0.00	20,058.81	0.2%	20,692.29	(618.12)	20,074.17	0.2%
17		Average	0.00	48,886.11	48,886.11	0.1%	58,801.17	0.00	58,801.17	0.2%	60,643.28	(2,063.22)	58,580.06	0.2%
18		Large	0.00	91,471.89	91,471.89	0.1%	102,089.55	0.00	102,089.55	0.2%	105,271.27	(3,860.54)	101,410.73	0.2%
19	T3	Large	0.00	355,168.85	355,168.85	0.7%	473,440.11	0.00	473,440.11	1.0%	491,638.75	(10,079.99)	481,558.75	1.0%
20	01	Small	0.00	0.01	0.01	0.0%	0.02	0.00	0.02	0.0%	0.02	(0.00)	0.02	0.0%
21	10	Small	0.00	0.31	0.31	0.0%	0.40	0.00	0.40	0.0%	0.40	(0.03)	0.37	0.0%
22		Large	0.00	1.28	1.28	0.0%	1.69	0.00	1.69	0.0%	1.69	(0.14)	1.55	0.0%
23	20	Small	0.00	3.00	3.00	0.0%	14.12	0.00	14.12	0.0%	14.11	(0.19)	13.93	0.0%
24		Large	0.00	15.01	15.01	0.0%	60.70	0.00	60.70	0.0%	60.67	(0.93)	59.74	0.0%
25	25	Average	0.00	0.28	0.28	0.0%	0.00	0.00	0.00	0.0%	0.00	(0.06)	(0.06)	0.0%
26	100	Small	0.00	0.00	0.00	0.0%	66.05	0.00	66.05	0.0%	55.07	0.00	55.07	0.0%
27		Large	0.00	0.00	0.00	0.0%	561.46	0.00	561.46	0.0%	468.14	0.00	468.14	0.0%

Notes:

(1) Cumulative bill impacts in each year are compared to 2013 Board-approved rates, including the impacts of the Parkway projects.

UNION GAS LIMITED  
2014 to 2019 Summary of the Parkway Delivery Obligation Proposal  
Bill Impacts by Rate Class

Line No.	Particulars		2017				2018				2019			
			Cumulative Bill Impact (1)				Cumulative Bill Impact (1)				Cumulative Bill Impact (1)			
			Delivery	Deferral	Total		Delivery	Deferral	Total		Delivery	Deferral	Total	
			(\$)	(\$)	(\$)	(%)	(\$)	(\$)	(\$)	(%)	(\$)	(\$)	(\$)	(%)
			(m)	(n)	(o) = (m + n)	(p)	(q)	(r)	(s) = (q + r)	(t)	(u)	(v)	(w) = (u + v)	(x)
1	M1	Small	3.09	0.01	3.10	0.4%	3.16	0.41	3.56	0.5%	5.58	0.00	5.58	0.8%
2	M2	Small	86.05	0.22	86.26	0.6%	87.51	9.75	97.26	0.7%	154.61	0.00	154.61	1.1%
3		Large	358.52	0.91	359.43	0.7%	364.63	40.60	405.24	0.8%	644.20	0.00	644.20	1.2%
4	M4	Small	998.02	(3.65)	994.37	0.6%	974.85	125.90	1,100.75	0.6%	1,730.03	0.00	1,730.03	1.0%
5		Large	12,607.40	(50.00)	12,557.40	0.6%	974.85	1,726.67	2,701.52	0.1%	21,955.28	0.00	21,955.28	1.0%
6	M5	Small	124.71	(7.50)	117.21	0.1%	77.61	13.31	90.92	0.1%	149.70	0.00	149.70	0.1%
7		Large	982.57	(59.10)	923.47	0.1%	611.48	104.84	716.33	0.1%	1,179.46	0.00	1,179.46	0.1%
8	M7	Small	33,973.27	(84.95)	33,888.31	0.5%	34,915.77	6,318.60	41,234.36	0.6%	62,216.47	0.00	62,216.47	1.0%
9		Large	107,547.97	(122.71)	107,425.26	1.0%	103,539.78	9,126.86	112,666.64	1.0%	182,737.81	0.00	182,737.81	1.7%
10	M9	Small	12,940.03	(73.18)	12,866.85	1.0%	11,862.80	1,100.79	12,963.59	1.0%	21,010.69	0.00	21,010.69	1.7%
11		Large	38,499.13	(212.45)	38,286.68	1.0%	35,225.14	3,195.93	38,421.06	1.0%	62,371.17	0.00	62,371.17	1.7%
12	M10	Average	891.20	12.63	903.84	4.4%	966.53	121.19	1,087.72	5.3%	1,693.67	0.00	1,693.67	8.3%
13	T1	Small	4,449.20	(66.38)	4,382.82	0.3%	3,959.26	459.27	4,418.52	0.3%	7,097.41	0.00	7,097.41	0.5%
14		Average	6,690.84	(101.86)	6,588.98	0.3%	5,944.98	704.77	6,649.75	0.3%	10,657.62	0.00	10,657.62	0.5%
15		Large	14,183.41	(225.67)	13,957.74	0.3%	12,609.78	1,561.40	14,171.18	0.3%	22,614.79	0.00	22,614.79	0.5%
16	T2	Small	20,432.89	(175.62)	20,257.27	0.2%	19,355.67	2,470.41	21,826.08	0.2%	34,601.77	0.00	34,601.77	0.3%
17		Average	60,141.13	(586.20)	59,554.94	0.2%	58,102.70	8,245.95	66,348.65	0.2%	104,119.15	0.00	104,119.15	0.3%
18		Large	104,685.65	(1,096.84)	103,588.80	0.2%	102,387.02	15,429.17	117,816.19	0.2%	183,746.58	0.00	183,746.58	0.3%
19	T3	Large	491,193.86	(397.04)	490,796.81	1.0%	488,595.43	62,696.59	551,292.02	1.2%	864,774.97	0.00	864,774.97	1.8%
20	01	Small	0.00	(0.01)	(0.00)	0.0%	(0.04)	(0.00)	(0.04)	0.0%	(0.04)	0.00	(0.04)	0.0%
21	10	Small	0.16	(0.14)	0.02	0.0%	(0.63)	0.02	(0.61)	0.0%	(0.45)	0.00	(0.45)	0.0%
22		Large	0.66	(0.59)	0.07	0.0%	(2.62)	0.09	(2.53)	0.0%	(1.87)	0.00	(1.87)	0.0%
23	20	Small	6.31	(0.77)	5.53	0.0%	(20.33)	0.54	(19.78)	0.0%	(18.35)	0.00	(18.35)	0.0%
24		Large	27.26	(3.86)	23.39	0.0%	(86.70)	2.72	(83.98)	0.0%	(77.82)	0.00	(77.82)	0.0%
25	25	Average	0.00	(0.26)	(0.26)	0.0%	0.00	(0.04)	(0.04)	0.0%	0.00	0.00	0.00	0.0%
26	100	Small	77.03	0.00	77.03	0.0%	120.96	0.00	120.96	0.0%	209.12	0.00	209.12	0.0%
27		Large	654.79	0.00	654.79	0.0%	1,028.17	0.00	1,028.17	0.0%	1,777.60	0.00	1,777.60	0.0%

Notes:

(1) Cumulative bill impacts in each year are compared to 2013 Board-approved rates, including the impacts of the Parkway projects.

UNION GAS LIMITED  
Summary of Parkway Delivery Obligation Rate Adjustments and Deferral Amounts from 2014-2018 by Rate Class

Line No.	Rate Class (\$000's)	2014				2015				2016			
		Rate Adjustments	Deferral Amounts (1)	Total	Variance	Rate Adjustments (2)	Deferral Amounts	Total	Variance	Rate Adjustments (3)	Deferral Amounts (4)	Total	Variance
		(a)	(b)	(c) = (a + b)	(d) = (g - c)	(e)	(f)	(g) = (e + f)	(h) = (k - g)	(i)	(j)	(k) = (i + j)	(l) = (o - k)
1	Rate M1	0	2,961	2,961	986	3,947	0	3,947	98	4,107	(62)	4,045	100
2	Rate M2	0	1,004	1,004	334	1,339	0	1,339	32	1,393	(22)	1,370	33
3	Rate M4	0	325	325	108	433	0	433	5	448	(11)	438	7
4	Rate M5	0	69	69	23	92	0	92	(8)	92	(8)	84	(4)
5	Rate M7	0	144	144	48	192	0	192	3	200	(4)	195	4
6	Rate M9	0	57	57	19	76	0	76	0	79	(2)	76	1
7	Rate M10	0	1	1	0	2	0	2	0	2	(0)	2	0
8	Rate T1	0	207	207	69	276	0	276	(4)	284	(11)	272	(0)
9	Rate T2	0	1,192	1,192	397	1,590	0	1,590	(0)	1,640	(50)	1,589	15
10	Rate T3	0	355	355	118	473	0	473	8	492	(10)	482	9
11	Total South In-franchise	0	6,316	6,316	2,103	8,419	0	8,419	135	8,735	(182)	8,554	164
12	Excess Utility Storage Space	0	1	1	0	1	0	1	0	1	0	1	1
13	Rate M12	0	(1,860)	(1,860)	(618)	(2,478)	0	(2,478)	(510)	(2,794)	(193)	(2,987)	(1,785)
14	Rate M13	0	1	1	0	1	0	1	0	1	0	1	1
15	Rate M16	0	6	6	2	9	0	9	0	9	0	9	1
16	Rate C1	0	77	77	26	102	0	102	2	102	2	105	21
17	Total Ex-franchise	0	(1,776)	(1,776)	(590)	(2,365)	0	(2,365)	(507)	(2,682)	(191)	(2,872)	(1,762)
18	Rate 01	0	6	6	2	7	0	7	(1)	7	(1)	7	(7)
19	Rate 10	0	2	2	1	2	0	2	(0)	2	(0)	2	(2)
20	Rate 20	0	1	1	0	1	0	1	(0)	1	(0)	1	(0)
21	Rate 100	0	0	0	0	0	0	0	(0)	0	(0)	0	(0)
22	Total North In-franchise	0	8	8	3	11	0	11	(1)	11	(1)	10	(9)
23	Total (line 11 + line 17 + line 22)	0	4,548	4,548	1,516	6,064	0	6,064	(373)	6,064	(373)	5,691	(1,607)

Notes:

- (1) Attachment 2, page 3, column (i).
- (2) EB-2013-0365, Schedule 11, page 1, column (c).
- (3) EB-2013-0365, Schedule 11, page 1, column (g).
- (4) Attachment 2, page 4, column (i).



UNION GAS LIMITED  
Summary of Parkway Delivery Obligation Rate Adjustments and Deferral Amounts from 2014-2018 by Rate Class

Line No.	Rate Class (\$000's)	2017			Variance (p) = (s - o)	2018		
		Rate Adjustments (5) (m)	Deferral Amounts (6) (n)	Total (o) = (m + n)		Rate Adjustments (7) (q)	Deferral Amounts (8) (r)	Total (s) = (q + r)
1	Rate M1	4,130	15	4,145	612	4,219	539	4,757
2	Rate M2	1,399	4	1,403	202	1,423	182	1,605
3	Rate M4	446	(2)	444	48	436	56	493
4	Rate M5	85	(5)	80	(15)	56	8	64
5	Rate M7	199	(0)	199	24	197	25	222
6	Rate M9	78	(1)	77	6	74	10	84
7	Rate M10	2	0	2	0	2	0	2
8	Rate T1	277	(5)	272	10	249	33	282
9	Rate T2	1,619	(14)	1,605	129	1,533	201	1,734
10	Rate T3	491	(0)	491	60	489	63	551
11	Total South In-franchise	8,726	(8)	8,718	1,076	8,677	1,117	9,794
12	Excess Utility Storage Space	1	0	1	2	3	0	3
13	Rate M12	(3,957)	(816)	(4,773)	(5,214)	(8,848)	(1,139)	(9,987)
14	Rate M13	1	0	1	2	2	0	3
15	Rate M16	9	1	10	4	13	1	13
16	Rate C1	116	10	126	68	174	20	194
17	Total Ex-franchise	(3,829)	(805)	(4,634)	(5,140)	(8,656)	(1,118)	(9,774)
18	Rate 01	3	(3)	(1)	(16)	(17)	0	(17)
19	Rate 10	1	(1)	1	(4)	(3)	0	(3)
20	Rate 20	1	(0)	0	(1)	(0)	0	(0)
21	Rate 100	(0)	(0)	(0)	(0)	(0)	(0)	(0)
22	Total North In-franchise	5	(4)	0	(20)	(21)	0	(20)
23	Total (line 11 + line 17 + line 22)	4,901	(817)	4,084	(4,084)	0	(0)	(0)

Notes:

- (5) EB-2013-0365, Schedule 11, page 1, column (k)
- (6) Attachment 2, page 5, column (i).
- (7) EB-2013-0365, Schedule 11, page 2, column (o)
- (8) Attachment 2, page 6, column (i).

UNION GAS LIMITED  
2014 Parkway Delivery Obligation Deferral Calculation by Rate Class  
Decrease of 66 TJ/day in Parkway Obligation Delivery and M12 Demands Prorated for Nine Months (April 2014 - December 2014)

Line No.	Rate Class (\$000's)	2014 Revenue Requirement with Parkway Projects (1) (a)	Adjusted Revenue Requirement (2) (b)	2014 Annual Cost Allocation Impact (c) = (b - a)	2014 Rate Adjustment (d)	Total Annual Change (e) = (c - d)	Amount To Be Deferred (f) = (e /12 x 9)	2014 Annual Temporary Capacity Costs (3) (g)	Temporary Capacity Amount To Be Deferred (4) (h) = (g /12 x 9)	Total Amount To Be Deferred (i) = (f + h)
1	Rate M1	387,943	389,092	1,149	0	1,149	862	2,799	2,099	2,961
2	Rate M2	51,121	51,508	387	0	387	290	952	714	1,004
3	Rate M4	15,514	15,632	118	0	118	89	315	236	325
4	Rate M5	15,870	15,884	15	0	15	11	77	58	69
5	Rate M7	5,129	5,183	53	0	53	40	139	104	144
6	Rate M9	742	762	20	0	20	15	56	42	57
7	Rate M10	74	74	1	0	1	0	1	1	1
8	Rate T1	11,699	11,766	67	0	67	50	209	157	207
9	Rate T2	40,956	41,370	415	0	415	311	1,175	881	1,192
10	Rate T3	4,663	4,795	133	0	133	99	341	256	355
11	Total South In-franchise	533,710	536,067	2,357	0	2,357	1,768	6,064	4,548	6,316
12	Excess Utility Storage Space	5,618	5,618	1	0	1	1	0	0	1
13	Rate M12	160,682	158,203	(2,480)	0	(2,480)	(1,860)	0	0	(1,860)
14	Rate M13	210	211	1	0	1	1	0	0	1
15	Rate M16	451	459	9	0	9	6	0	0	6
16	Rate C1	8,143	8,245	102	0	102	77	0	0	77
17	Total Ex-franchise	175,104	172,736	(2,368)	0	(2,368)	(1,776)	0	0	(1,776)
18	Rate 01	258,785	258,792	7	0	7	6	0	0	6
19	Rate 10	51,394	51,396	2	0	2	2	0	0	2
20	Rate 20	27,309	27,310	1	0	1	1	0	0	1
21	Rate 100	15,642	15,642	0	0	0	0	0	0	0
22	Total North In-franchise	353,129	353,140	11	0	11	8	0	0	8
23	Total (line 11 + line 17 + line 22)	1,061,944	1,061,944	0	0	0	0	6,064	4,548	4,548

Notes:

- (1) 2013 Board-approved delivery, storage and transportation revenue requirement including filed EB-2012-0433 2014 Parkway West Project of (\$0.3) million.
- (2) Cost allocation assumes decrease of 66 TJ/day in Parkway Delivery Obligation and M12 Demands.
- (3) EB-2013-0365, Schedule 9, column (e).
- (4) Nine months of the temporary capacity associated with 146 TJ/day.

UNION GAS LIMITED  
2016 Parkway Delivery Obligation Deferral Calculation by Rate Class  
Additional Decrease of 28 TJ/day in Parkway Obligation Delivery and M12 Demands Prorated for Two Months (November 2016 - December 2016)

Line No.	Rate Class (\$000's)	2016 Revenue Requirement with Parkway Projects (1)	Adjusted Revenue Requirement (2)	2016 Annual Cost Allocation Impact (c) = (b - a)	2016 Rate Adjustment (3) (d)	Total Annual Change (e) = (c - d)	Amount To Be Deferred (f) = (e /12 x 2)	2016 Annual Temporary Capacity Costs (4) (g)	Temporary Capacity Amount To Be Deferred (5) (h) = (g /12 x 2)	Total Amount To Be Deferred (i) = (f + h)
		(a)	(b)	(c) = (b - a)	(d)	(e) = (c - d)	(f) = (e /12 x 2)	(g)	(h) = (g /12 x 2)	(i) = (f + h)
1	Rate M1	384,740	386,607	1,866	1,308	558	93	(931)	(155)	(62)
2	Rate M2	50,994	51,623	629	441	188	31	(322)	(54)	(22)
3	Rate M4	15,488	15,680	192	134	58	10	(123)	(20)	(11)
4	Rate M5	15,726	15,748	22	15	8	1	(55)	(9)	(8)
5	Rate M7	5,139	5,226	87	61	26	4	(52)	(9)	(4)
6	Rate M9	756	788	32	23	10	2	(24)	(4)	(2)
7	Rate M10	74	75	1	1	0	0	(0)	(0)	(0)
8	Rate T1	11,647	11,755	108	74	33	6	(101)	(17)	(11)
9	Rate T2	40,892	41,560	669	464	204	34	(506)	(84)	(50)
10	Rate T3	4,764	4,980	215	151	65	11	(125)	(21)	(10)
11	Total South In-franchise	530,221	534,043	3,822	2,671	1,151	192	(2,240)	(373)	(182)
12	Excess Utility Storage Space	5,557	5,558	1	1	0	0	0	0	0
13	Rate M12	194,577	190,624	(3,954)	(2,794)	(1,160)	(193)	0	0	(193)
14	Rate M13	210	211	1	1	0	0	0	0	0
15	Rate M16	448	457	9	9	1	0	0	0	0
16	Rate C1	8,109	8,226	116	102	14	2	0	0	2
17	Total Ex-franchise	208,901	205,075	(3,826)	(2,682)	(1,145)	(191)	0	0	(191)
18	Rate 01	259,665	259,668	3	7	(5)	(1)	0	0	(1)
19	Rate 10	51,884	51,885	1	2	(1)	(0)	0	0	(0)
20	Rate 20	27,314	27,314	1	1	(0)	(0)	0	0	(0)
21	Rate 100	15,499	15,499	(0)	0	(0)	(0)	0	0	(0)
22	Total North In-franchise	354,362	354,366	5	11	(6)	(1)	0	0	(1)
23	Total (line 11 + line 17 + line 22)	1,093,484	1,093,484	0	0	0	0	(2,240)	(373)	(373)

Notes:

- (1) 2013 Board-approved delivery, storage and transportation revenue requirement including filed EB-2012-0433 2016 Parkway West Project of \$16.5 million and EB-2013-0074 2016 Brantford to Kirkwall and Compressor D Project of \$14.7 million.
- (2) Cost allocation assumes decrease of 94 TJ/day in Parkway Delivery Obligation and M12 Demands.
- (3) Rate adjustments associated with 66 TJ/day, as provided at EB-2013-0365, Schedule 11, column (e)
- (4) Difference between the M12 service costs associated with 146 TJ/day and 118 TJ/day, as provided at Schedule 9, column (e) and Schedule 10, column (e).
- (5) Two months of the temporary capacity associated with 28 TJ/day.

UNION GAS LIMITED  
2017 Parkway Delivery Obligation Deferral Calculation by Rate Class  
Additional Decrease of 118 TJ/day in Parkway Obligation Delivery and M12 Demands Prorated for Two Months (November 2017 - December 2017)

Line No.	Rate Class (\$000's)	2017 Revenue Requirement with Parkway Projects (1)	Adjusted Revenue Requirement (2)	2017 Annual Total Cost Allocation Change (c) = (b - a)	2017 Rate Adjustment (3) (d)	Total Annual Change (e) = (c - d)	Rate Change Amount To Be Deferred (f) = (e /12 x 2)	2017 Annual Temporary Capacity Costs (4) (g)	Temporary Capacity Amount To Be Deferred (5) (h) = (g /12 x 2)	Total Amount To Be Deferred (i) = (f + h)
		(a)	(b)	(c) = (b - a)	(d)	(e) = (c - d)	(f) = (e /12 x 2)	(g)	(h) = (g /12 x 2)	(i) = (f + h)
1	Rate M1	385,379	389,599	4,221	1,868	2,353	392	(2,262)	(377)	15
2	Rate M2	51,087	52,511	1,424	630	794	132	(769)	(128)	4
3	Rate M4	15,511	15,947	436	192	244	41	(254)	(42)	(2)
4	Rate M5	15,747	15,803	56	22	34	6	(62)	(10)	(5)
5	Rate M7	5,147	5,344	197	87	110	18	(112)	(19)	(0)
6	Rate M9	757	831	74	32	42	7	(45)	(8)	(1)
7	Rate M10	74	76	2	1	1	0	(1)	(0)	0
8	Rate T1	11,663	11,912	248	108	140	23	(169)	(28)	(5)
9	Rate T2	40,959	42,492	1,533	669	864	144	(950)	(158)	(14)
10	Rate T3	4,772	5,261	489	216	273	46	(276)	(46)	(0)
11	Total South In-franchise	531,096	539,776	8,680	3,825	4,855	809	(4,901)	(817)	(8)
12	Excess Utility Storage Space	5,567	5,569	3	1	1	0	0	0	0
13	Rate M12	194,722	185,870	(8,852)	(3,957)	(4,895)	(816)	0	0	(816)
14	Rate M13	210	212	2	1	1	0	0	0	0
15	Rate M16	448	461	13	9	3	1	0	0	1
16	Rate C1	8,112	8,286	174	116	58	10	0	0	10
17	Total Ex-franchise	209,058	200,398	(8,660)	(3,829)	(4,831)	(805)	0	0	(805)
18	Rate 01	259,961	259,944	(17)	3	(20)	(3)	0	0	(3)
19	Rate 10	51,929	51,926	(3)	1	(4)	(1)	0	0	(1)
20	Rate 20	27,346	27,346	(0)	1	(1)	(0)	0	0	(0)
21	Rate 100	15,524	15,524	(0)	(0)	(0)	(0)	0	0	(0)
22	Total North In-franchise	354,761	354,740	(20)	5	(25)	(4)	0	0	(4)
23	Total (line 11 + line 17 + line 22)	1,094,915	1,094,915	0	0	0	0	(4,901)	(817)	(817)

Notes:

- (1) 2013 Board-approved EB-2011-0210 delivery, storage and transportation revenue requirement including filed EB-2012-0433 2017 Parkway West Project of \$17.2 million and EB-2013-0074 2017 Brantford to Kirkwall and Compressor D Project of \$15.4 million.
- (2) Cost allocation includes decrease of 212 TJ/day in Parkway Delivery Obligation and M12 Demands.
- (3) Rate adjustments associated with 94 TJ/day, as provided at EB-2013-0365, Schedule 11, column (i).
- (4) Reduction of the M12 service costs associated with 118 TJ/day, as provided at Schedule 10, column (e).
- (5) Two months of the temporary capacity associated with 118 TJ/day.

UNION GAS LIMITED

2018 Parkway Delivery Obligation Deferral Calculation by Rate Class

Additional Decrease of 167 TJ/day reduction in Parkway Obligation Delivery and M12 Demands Prorated for Two Months (November 2018 - December 2018)

Line No.	Rate Class (\$000's)	2018 Revenue Requirement with Parkway Projects (1)	Adjusted Revenue Requirement (2)	2018 Annual Total Cost Allocation Change (c) = (b - a)	2018 Rate Adjustment (3) (d)	Total Annual Change (e) = (c - d)	Rate Change Amount To Be Deferred (f) = (e /12 x 2)	2018 Annual Temporary Capacity Costs (g)	Temporary Capacity Amount To Be Deferred (h) = (g /12 x 2)	Total Amount To Be Deferred (i) = (f + h)
1	Rate M1	385,933	393,383	7,450	4,219	3,231	539	0	0	539
2	Rate M2	51,165	53,679	2,514	1,423	1,091	182	0	0	182
3	Rate M4	15,530	16,304	774	436	338	56	0	0	56
4	Rate M5	15,766	15,873	107	56	51	8	0	0	8
5	Rate M7	5,153	5,502	349	197	152	25	0	0	25
6	Rate M9	758	890	132	74	58	10	0	0	10
7	Rate M10	74	77	3	2	1	0	0	0	0
8	Rate T1	11,677	12,123	446	249	197	33	0	0	33
9	Rate T2	41,013	43,752	2,740	1,533	1,207	201	0	0	201
10	Rate T3	4,778	5,642	865	489	376	63	0	0	63
11	Total South In-franchise	531,846	547,226	15,380	8,677	6,703	1,117	0	0	1,117
12	Excess Utility Storage Space	5,575	5,580	5	3	2	0	0	0	0
13	Rate M12	194,637	178,956	(15,681)	(8,848)	(6,833)	(1,139)	0	0	(1,139)
14	Rate M13	210	215	5	2	2	0	0	0	0
15	Rate M16	449	466	17	13	5	1	0	0	1
16	Rate C1	8,114	8,405	292	174	117	20	0	0	20
17	Total Ex-franchise	208,985	193,622	(15,363)	(8,656)	(6,706)	(1,118)	0	0	(1,118)
18	Rate 01	260,213	260,196	(16)	(17)	1	0	0	0	0
19	Rate 10	51,966	51,964	(2)	(3)	2	0	0	0	0
20	Rate 20	27,375	27,375	0	(0)	1	0	0	0	0
21	Rate 100	15,547	15,547	(0)	(0)	(0)	(0)	0	0	(0)
22	Total North In-franchise	355,100	355,083	(18)	(21)	3	0	0	0	0
23	Total (line 11 + line 17 + line 22)	1,095,931	1,095,931	0	0	0	0	0	0	0

Notes:

- (1) 2013 Board-approved delivery, storage and transportation revenue requirement including filed EB-2012-0433 2018 Parkway West Project costs of \$17.7 million and EB-2013-0074 2018 Brantford to Kirkwall and Compressor D Project of \$15.9 million.
- (2) Cost allocation includes a decrease of 379 TJ/day in Parkway Delivery Obligation and M12 Demands.
- (3) Rate adjustments associated with 212 TJ/day, as provided at EB-2013-0365, Schedule 11, column (m).

UNION GAS LIMITED

Answer to Interrogatory from  
Board Staff

Reference: Exhibit A, Tab 4

In its evidence, Union has proposed to eliminate the Parkway delivery obligation for direct purchase customers over the 2014 to 2018 period because large volume direct purchase customers have requested that Union eliminate the Parkway delivery obligation. Please explain how Union's proposal is equitable to all ratepayers considering that Union's residential ratepayers will bear a significant portion of the costs to eliminate the delivery obligation.

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**Response:**

Large volume direct purchase customers are bearing the incremental gas supply costs associated with the Parkway obligated deliveries while small volume customers receive the majority of the delivery rate benefit. Union's Parkway delivery obligation proposal eliminates the subsidy by transitioning all direct purchase delivery obligations to Dawn while maintaining its Board-approved cost allocation methodology for Dawn to Parkway costs.

As explained at Exhibit A, Tab 4, pp. 34-41, Union allocates Dawn to Parkway costs to rate classes based on Dawn to Parkway distance weighted design day demands. Union's Parkway delivery obligation proposal has no impact on the methodologies used to allocate the Dawn to Parkway costs. Union will continue to allocate Dawn to Parkway costs to rate classes based on distance weighted design day demands. This ensures that each rate is allocated the appropriate costs.

As explained at Exhibit A, Tab 4, p. 3, obligated deliveries at Parkway reduce the Dawn to Parkway facilities required to serve customers on a design day. All customers have benefitted from the reduction in Dawn to Parkway facility requirements through lower delivery and transportation rates.

As shown at Exhibit A, Tab 4, Appendix A, slide 22, the majority of Parkway delivery obligated volumes are provided by the large contract rate customers. Therefore, the large contract rate customers are subsidizing the rates of all customers by providing obligated deliveries at Parkway.

Union's Parkway delivery obligation proposal reduces and eventually eliminates the inequity of large contract rate customers delivering gas at Parkway to subsidize all rate classes, including residential customers.

UNION GAS LIMITED

Answer to Interrogatory from  
Board Staff

Reference: Exhibit A, Tab 4

Please confirm whether there will be any impact on the gas supply plan as a result of Union implementing its proposal to eliminate the Parkway delivery obligation. Please provide a detailed response.

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**Response:**

Union's proposal to eliminate the Parkway delivery obligation for direct purchase customers has no material impact on the gas supply plan or gas supply costs for sales service customers. However, there are still some minor impacts. Union's proposal results in a temporary shift approximately 5 TJ/d of obligations from Dawn to Parkway for the sales service portfolio. To the extent that direct purchase customers have a significant Western component of their Parkway delivery obligation, Union's proposal allows for turnback of that capacity to Union as part of the DP transition from Parkway to Dawn. Union will accept back approximately 5 TJ/d of upstream capacity from direct purchase customers in 2014/2015 as noted in Table 1 below, resulting in an increase of Parkway deliveries and a corresponding reduction of Dawn deliveries for sales service customers. Union will be able to turnback this capacity to TCPL effective November 1, 2016.

Union plans to transition the majority of the sales service supply portfolio from Parkway to Dawn in 2016 by constructing Dawn to Parkway facilities to replace upstream transportation contracts held by Union. This transition to Dawn is similar to Union's practice since 2000 and is consistent with Union's gas supply planning principles, most recently approved in EB-2011-0210. The principles are designed to ensure that customers receive secure, diverse gas supply at a prudently incurred cost and minimal risk. The principles are:

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

In EB-2012-0433 and EB-2013-0074 (Parkway Projects), Union discussed the changes in Union's gas supply plan for 2015. These changes primarily include converting long haul Empress to Union EDA to short haul capacity from Dawn to the Union EDA. A smaller quantity of long haul Empress to NDA was also discussed as being converted to short haul from Dawn as

well in 2015. To facilitate this conversion, new facilities are required on Union's Dawn to Parkway system, Enbridge's Albion line and TCPL's Kings North project.

For 2016, Union is proposing to continue to diversify the supply serving the North customers. Specifically, Union is proposing to turnback some further TCPL long haul capacity from Empress to the Union NDA and replace the capacity with short haul capacity from Dawn through Parkway to the Union NDA. As well, Union will turnback the majority of the TCPL long haul capacity from Empress to the Union CDA. As discussed in the EB-2013-0109 proceeding, Union's long haul contract on TCPL from Empress to the Union CDA is used to provide supply for Union South customers. However, on cold winter days it is diverted to the north customers to help meet their daily demand. If Union diverts the CDA contract to the NDA, WDA and MDA, the Union North customers send an equivalent volume of gas from Dawn to Parkway to ensure the Parkway obligation is met for the Union South customers. This arrangement has provided an economical way of meeting winter demands in the north for many years (EB-2013-0109, Exhibit B, Tab 3, pp.20-21) The turnback of the Empress to Union CDA capacity will reduce the Union South sales service obligation at Parkway in 2016.

The turnback of the CDA contract is also dependent on a second Union project in 2016, the Burlington/Oakville Project. A portion of the Burlington/Oakville area (Union CDA) is currently served from the TCPL system. Union will be proposing a new pipeline to be built from the Dawn to Parkway system to the Burlington/Oakville area. The new pipeline will allow Union to deliver gas to this growing area from the Union system. By building this line, Union will also be able to turnback the TCPL contract from Dawn to the Union CDA and also eliminate other TCPL and third party contracts from Parkway to the Union CDA that Union relies on today. Union has relied on third party services (market based) to serve the CDA from Parkway because TCPL did not have the full capacity available.

To make the above changes in 2015 and 2016 it is critical that the Settlement Agreement between TCPL and the three Eastern LDCs (Union, Enbridge and Gas Metro) is approved by the NEB. All of the capacity changes described above are contemplated and included in the Settlement. As discussed in EB-2013-0074, the Settlement Agreement allows TCPL to return to a cost of service framework that supports customer access to new supplies, allows TCPL a reasonable opportunity to recover costs and allows the EDA customers (2015) and the NDA customers (2015 and 2016) access to Dawn supply diversity (EB-2012-0433/EB-2012-0451/EB-2013-0074, Tr. Vol 8, p. 47).

There are certain key regulatory approvals that are required for the successful evolution of the Union North and South sales service portfolios over the next two years. These include:

- 1) NEB approval of the TCPL Settlement agreement and the rates, services and facilities that would result;
- 2) NEB approval of the TCPL facilities required to transition some of the gas supply portfolio from long haul to short haul;
- 3) OEB approval of the necessary facilities for Enbridge and Union in 2015 (EB-2012-0433 and EB-2013-0074);
- 4) OEB approval of additional Union Dawn to Parkway facilities (yet to be filed) for service in



- 2016, that are important to the transportation path between Dawn and points east and north being completed. The 2016 build will meet incremental requirements for ex-franchise customers, enable Union to continue to transition Union North supplies to Dawn, and move Union South sales service customers' supplies from Parkway to Dawn; and,
- 5) OEB approval of the Union Burlington/Oakville Project (yet to be filed). This project will reduce Union's reliance on third party transportation contracts to the CDA and responds to new growth opportunities in that area of Union's franchise.

Table 1 below identifies the impacts by year of Union's Parkway delivery obligation proposal and Union's plans to transition a significant portion of the sales service Parkway obligation to Dawn. Table 1 incorporates the planned changes as a result of the factors noted above.

**Table 1**  
**Sales Service Parkway Deliveries**

<b>Year</b>	<b>TJ/d</b>	<b>%</b>
Current	98	31%
2014/2015	103	32%
2016	11	3%
2017	11	3%
2018	11	3%
2019	11	3%

The costs of the current upstream contracts to move gas to Parkway are currently included in gas costs. As stated at Exhibit A, Tab 4, p. 28:

*"Should Union move all or a portion of the sales service Parkway delivery obligation to Dawn, the cost impacts will be treated the same as the costs to transition the direct purchase Parkway delivery obligation to Dawn".*

The costs of the Union facilities to move Union South sales service customers' obligation from Parkway to Dawn as discussed above will be incorporated into delivery rates at the time those facilities come into service.

As committed in the Board-approved EB-2013-0202 Settlement Agreement, Union will present the gas supply plan at the Stakeholder review session during each year of the IRM term. This presentation will describe the most recently approved plan in detail and discuss potential future changes. The first of these sessions will take place in April 2014. In that session, Union will review the changes in detail for the 2013/2014 gas supply plan and discuss potential future changes to the gas supply plan including those changes planned for 2016.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 1, pages 4 & 6 & Working Papers, Schedules 1 & 11

The DSM budget increase is based on a 1.29% inflation factor applied to the 2013 DSM budget. Please explain the difference between this figure and the inflation rate of 1.27% use for price cap purposes.

---

**Response:**

Both inflation factors are GDP measures provided by Statistics Canada that are comparable but not identical, and are consistent with the regulatory decisions that underpin them.

The inflation factor of 1.27% used in Union's PCI mechanism is the moving four quarter average of Statistics Canada's Gross Domestic Product Implicit Price Index Final Domestic Demand ("GDP IPI FDD") at Q2, 2013. The DSM budget increase is based on an inflation factor of 1.29%, which represents the moving four quarter average of the Gross Domestic Product Implicit Price Index ("GDP-IPI") at Q2, 2013 (as per EB-2011-0327, Settlement Agreement).

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 1, pages 11-12 & Exhibit A, Tab 3

Does Union have a model that provides a comparison of distribution costs under Rates M2 and M4 based on customer specific daily demands and monthly volumes? If so, can customers request that Union provide a copy to them based on their last year of historical data so they can analyze the impact of moving from one rate class to another? If not, why not?

---

**Response:**

Union does not have a model to evaluate the distribution costs between the M2 and M4 rate classes. Union requires daily consumption data to make a precise comparison between two rate classes. In the absence of daily consumption data for M2 customers, Union applied regression analysis to monthly M2 customer consumption data in order to generate an estimated M1 contract demand parameter which made a comparative cost estimate to M2 possible. Using 2012 data, approximately 650 M2 customers exceeded the revised eligibility threshold set at 350,000 m<sup>3</sup> annually. Union applied several tests and filters toward determining which of these customers may find contract rate of value.

To reinforce sustainability of consumption, Union applied a test which requires that a customer demonstrate two consecutive years of consumption above the new minimum threshold volume. This test is consistent with the two year consumption requirement that differentiates M2 customers from M1 customers. This test reduced the potential eligible customers to approximately 490.

Union prepared an estimated invoice cost comparison between M2 and M4 rates for each of these customers. This analysis determined that 165 M2 customers of the initial 490 M2 customer population group might find economic benefit by moving to a contract rate. Union targeted these customers with a written communication package advising them of the availability of the contract rate and inviting them to contact Union for further information. Union encouraged these customers to review the new option with their energy marketer or consultant. This information package was mailed out the week of July 15, 2013. The cost comparison estimates were available to be shared with the customers in the event the communication generated subsequent interest to find out more.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 1, page 12

What is the transition period in relation to the M4 and M5A customers that will be switched to M7? Is it based on the remaining term of the contract with the M4 and M5A customers?

---

**Response:**

The transition period is from January 1, 2014 to the contract renewal date in 2014 for any particular customer.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 3

Is the "distance credit" referred to that reduces the allocation of Dawn-Parkway transmission system costs to Union South in-franchise customers allocated to all in-franchise customers including direct purchase (bundled, semi-unbundled and unbundled) and system gas customers?

---

**Response:**

Yes. The distance credit reduces the allocation of Dawn-Parkway transmission system costs to all Union South in-franchise direct purchase and sales service customers.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 4

What is the impact on Union's proposal if a Board decision on the Parkway delivery obligation is not received by Union prior to April 1, 2014?

---

**Response:**

Union plans to implement the Parkway obligation reduction April 1, 2014 under the assumption that the proposal is approved as filed.

If the proposal is not approved, or is delayed, Union will work with customers to make the appropriate contract changes required to reflect the Board's Decision.

The Parkway delivery obligation deferral account balance for 2014 will be calculated based on the Board-approved implementation date.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 5

- a) The evidence indicates that the reduction in the Parkway delivery obligation that Union is proposing for April 1, 2014 would have an expected increase in delivery rates of \$8.5 to \$9.0 million starting January 1, 2015. What is the expected increase in delivery rates in 2014?
- b) How would rates be charged to recovery any costs in 2014?
- c) How does Union propose to change the rates in 2015 to recover additional costs allocated to in-franchise rate classes?
- d) How much of the \$8.5 to \$9.0 million would be collected from direct purchase customers and how much would be collected from system gas customers?
- e) Would the split requested in part (d) above be applicable to the ultimate annual cost of \$15 million? If not, please provide a split of this amount between that recovered from direct purchase customers and that from direct purchase customers on a best efforts basis.

---

**Response:**

- a) Union's 2014 rates will not be adjusted as a result of the proposed April 1, 2014 reduction in the Parkway delivery obligation.

The 2014 cost allocation impacts associated with Union's Parkway delivery obligation proposal will be recorded in a new deferral account. Union is requesting the new deferral account to track the rate variances associated with the timing differences between the effective dates (i.e. April 1, 2014) and the inclusion of the cost allocation impacts in rates (i.e. January 1, 2015).

Union expects to recover approximately \$6.3 million from Union South in-franchise customers for 2014 through the new deferral account. Please see the response at Exhibit B1.7, Attachment 2 for a detailed calculation of the 2014 deferral account adjustments by rate class.

- b) As indicated in part a), the 2014 cost allocation impacts will be recorded in a new deferral account. The balance in the new deferral account will be disposed of as part of Union's 2014 annual deferral account disposition proceeding in 2015.

- c) Union is proposing to include the 2015 cost allocation impacts of the Parkway delivery obligation proposal in Union South in-franchise delivery rates, Union North in-franchise storage rates and ex-franchise transportation rates in its 2015 rates application.
- d) Based on Union's proposed January 1, 2015 rate adjustments, as shown at Exhibit A, Tab 4, Schedule 11, p. 1, Union South in-franchise rates will increase by approximately \$8.4 million. Of this amount, Union estimates that approximately \$3.6 million (or 43%) will be recovered from sales service customers and \$4.8 million (or 57%) will be recovered from direct purchase customers, as shown in Table 1 below.

Table 1  
Summary of the Parkway Delivery Obligation Proposal Rate Adjustments

Line No.	Rate Class (\$000's)	January 2015		
		Total (1)	Sales Service (2)	Direct Purchase (2)
		(a)	(b)	(c)
1	Rate M1	3,947	3,050	897
2	Rate M2	1,339	519	820
3	Rate M4	433	18	415
4	Rate M5	92	2	89
5	Rate M7	192	0	192
6	Rate M9	76	0	76
7	Rate M10	2	0	1
8	Rate T1	276	0	276
9	Rate T2	1,590	0	1,590
10	Rate T3	473	0	473
11	Total South In-franchise	8,419	3,590	4,829

Notes:

- (1) Appendix A, Tab 4, Schedule 11, Page 1, column (c).  
(2) Based on 2013 Board-approved volumes by rate class.

e) Yes.



UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 5

What is the expected annual savings to direct purchase customers of removing the Parkway delivery obligation? In providing this response, please base it on the current gas price differential between Parkway and Dawn deliveries. Please also provide a sensitivity analysis based on historical differentials that have existed over the last 2 years.

---

**Response:**

The gas cost savings associated with removing the Parkway delivery obligation will vary for each customer as it is a function of how each customer is currently meeting their obligation and how their delivery rates will change with implementation of the proposal.

The savings arise from customers having access to lower priced gas at Dawn after factoring in the slightly higher costs for delivery service arising from the implementation of Union's proposal. In response to the interrogatory Union has provided three alternative ways of meeting the current Parkway delivery obligation are considered:

1. Buy gas at Parkway;
2. Buy gas at Dawn and transport the gas to Parkway; and
3. Buy gas at Empress and transport the gas to Parkway (CDA) using a longhaul TCPL contract.

In all cases the above cost scenarios are compared to purchasing gas at Dawn and using daily pricing data.

Table 1 below provides the economics of three potential scenarios to direct purchase customers using average gas pricing and tolling for the November 1, 2011 to October 31, 2013 period and then applies it to the current Parkway delivery obligation quantity for direct purchase customers of 564,000 GJ/d:

Table 1

<b>Scenario</b>	<b>1. Buy Parkway Supply vs. Dawn Supply</b>	<b>2. Dawn Supply + M12 service to Parkway vs. Dawn Supply</b>	<b>3. Empress Supply+ TCPL service to Union-CDA vs. Dawn Supply</b>
<b>Average daily Parkway premium (a)</b>	\$0.05/GJ	\$0.103/GJ	\$1.22 (plus TCPL fuel)
<b>Annual Potential Impact (b)= (a) x 564,000 GJ x 365 days</b>	\$10.3 million	\$21.2 million	\$251 million

Assumptions: Over the November 1, 2011 to October 1, 2013 time period, the Empress price averaged \$2.49/GJ, Dawn was \$3.40/GJ, Parkway was \$3.45 and the TCPL toll was \$2.13/GJ (excluding fuel). The underlying historical data used in the calculations was sourced from GLJ Energy Publications.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 7

- a) Union indicates that it will continue to obligate deliveries of gas to Parkway on behalf of system gas customers (i.e. the 98 TJ/day noted on page 3). Please provide a calculation similar to that requested in Interrogatory #7 to show the annual gas cost savings for system gas customers if this 98 TJ/day was moved from Parkway to Dawn.
  - b) Please explain why system gas customers should continue to pay for higher priced Parkway gas and at the same time pay higher delivery rates for the elimination of the Parkway delivery obligation that would only benefit direct purchase customers.
  - c) Did Union consider prorating the transition from Parkway to Dawn between direct purchase customers and system gas customers, based on the current mix of obligated deliveries at Dawn (i.e. 98/662 or 14.8% for system gas customers and 564/662 or 85.2% for direct purchase customers)? If not, why not?
- 

**Response:**

- a) As discussed at Exhibit B1.9, Union is planning to transition supply from Parkway to Dawn for Union's sales service customers. The savings will vary subject to actual commodity costs and tolls. However, based on current tolls and forecast gas prices filed in the January 1, 2014 QRAM, the savings would be approximately \$18 million per year.
- b) Please see the response at Exhibit B1.9.
- c) Please see the response at Exhibit B8.3.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 8

- a) Why did direct purchase customers prefer to keep their TCPL long haul capacity rather than transport gas on Alliance and Vector?
  - b) What was the impact of this preference by direct purchase customers on the gas transportation and supply costs incurred by system gas customers?
- 

**Response:**

- a) Union speculates that direct purchase customers had various reasons for preferring to keep their TCPL long haul capacity rather than transporting their gas on Alliance and Vector. These reasons likely included, economics, terms of service, familiarity and required approvals.

As stated at Tab 4, p.12, from the RP-2002-0130 decision,

*"Direct purchasers volunteer to assume responsibilities associated with the delivery of commodity at negotiated delivery points because they believe on the basis of their business judgment [ that they] can procure and deliver the commodity more cheaply than can the system operator," (RP-2002-0130, Decision, para 260).*

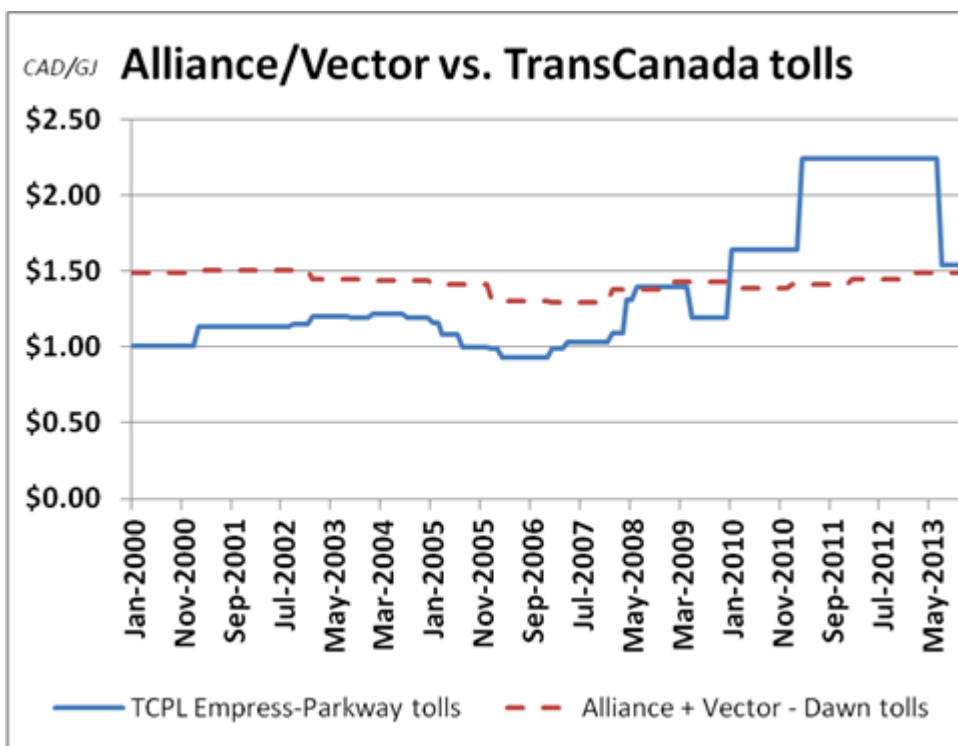
In response to an interrogatory from Union in RP-1999-0017, Exhibit E, question 2 IGUA stated that:

*"Any shipper, large or small, who wishes to unbundle his delivery services, wants to replace the bundled services with unbundled services that best meet that shipper's specific requirements. It goes without saying that it is far more user-friendly to manage only one or perhaps two transportation services, and the associated gas supplies, than to have to manage six or seven different pipeline contracts, some of which may be for small volumes.*

*Consider the end-user who wishes to purchase his required gas supply at the Alberta border from one or more producers/suppliers. Some of that supply can be transported and delivered via assigned TCPL capacity, but if Union were to assign capacity on its other upstream transportation providers such as Panhandle, Vector and St. Clair, there is no linkage between the Alberta border and those other pipelines. The capacity on the other pipelines could not be used to move the contracted Alberta supply.*

*It is impractical for new direct purchasers (bundled or unbundled) to diversify their gas supply portfolios to match the vertical slice of transportation capacity which Union proposes to assign or allocate to them. Some portion of the capacity which is allocated is likely to remain unutilized. IGUA believes that, in total, less contracted transportation will remain under-utilized under the “let the customer choose” approach rather than under the vertical slice approach proposed by Union.”*

- b) In terms of economics, the relative difference in Alliance/Vector and TCPL tolls is represented in the graph below. The graph illustrates that at the time the decision was made in June, 2000 by direct purchase customers to retain their TCPL capacity and not to rebalance with Alliance Vector, it was financially favourable for direct purchase customers to keep their TCPL capacity with a Parkway delivery obligation. This decision resulted in periods of similar or higher costs for the sales service portfolio until 2010. Since 2010, as shown in the graph, sales service customers have benefitted from the relative lower cost of Alliance/Vector versus TCPL.



Note: Tolls do not capture the minor basis differential between TCPL and Alliance supply basin points. However, it is representative of the relative landed cost for each path.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, pages 15-18

In discussing the option to re-allocate Dawn and Parkway delivery obligations between system and direct purchase customers, Union states that this option out:

- i) force direct purchase customers to change their existing gas supply arrangements, making the gas supply arrangements more complicated for some direct purchase customers; and
- ii) that this option would not be immediately possible because many customers make gas supply arrangements many months ahead of time and would not be able to unwind those contracts.

Please comment on how these issues are mitigated under the Union proposal.

---

**Response:**

Union's proposal is optional and involves an election being made by each customer with a Parkway delivery obligation. In addition, please see the response at Exhibit B8.3 explaining why transferring any portion of the obligation at Parkway between sales service and direct purchase customers is not appropriate.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, pages 16-18

Did Union consider a version of Option 2 where instead of re-allocating the Dawn and Parkway delivery obligation between system and all direct purchase customers to one that re-allocated only the Parkway obligation of direct purchase customers (564 TJ/day) with Dawn (202 TJ/day) and Parkway (92 TJ/day) deliveries for system gas customers? If not, why not?

---

**Response:**

Please see the response at Exhibit B8.3.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, pages 16-18

- a) Please confirm that currently Union receives approximately 59.7% of the obligated deliveries for direct purchase and system gas customers  $((564+98)/(564+98+245+202))$  at Parkway, excluding deliveries at Kirkwall, and the remaining 40.3% at Dawn.
- b) If Union applied these percentages to the direct purchase and system gas obligated deliveries that total 1,109 TJ/day (excluding Kirkwall), please confirm that the allocation would be approximately as follows: direct purchase Parkway obligation of 483 TJ/day and Dawn obligation of 326 TJ/day; system gas Parkway obligation of 179 TJ/day and Dawn obligation of 121 TJ/day.
- c) Please comment on an option where Union did not change the current Dawn delivery obligations of direct purchase customers, but allowed the direct purchase customers with obligated deliveries at Parkway to shift 14.4%  $((564-483) / 564)$  of their current deliveries at Parkway to Dawn and Union moved an equivalent amount of system gas purchases from Dawn to Parkway.
- d) Under the scenario presented in part (c) above, based on current differentials, what would be the increase in annual system gas costs?
- e) Please confirm that under the scenario presented in part (c), there would be no increase in delivery rates for Union South in-franchise customers.

---

**Response:**

- a) Confirmed.
- b) Confirmed.
- c) The scenario presented results in the sales service system gas portfolio delivering an incremental 81 TJ/d of gas at Parkway.
- d) Assuming that capacity used to meet this requirement was Union-provided Dawn to Parkway capacity, the costs would not be reflected in gas costs; they would be recovered in distribution rates.

If the capacity was not available on Union's system, then a service would need to be acquired. The costs for a 3<sup>rd</sup> party service can vary significantly and would likely be priced at prevailing



market value and would be recovered in sales service gas costs. Please see the response at Exhibit B2.7 for examples of different pricing scenarios.

e) Please see the response at part d).

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4

- a) Do any direct purchase customers have obligated deliveries at Kirkwall? Can direct purchase customers deliver obligated volumes to Union at Kirkwall?
  - b) Does Union expect direct purchase customers to have any interest in delivering volumes to Kirkwall and/or Parkway sourced in shale gas production areas in the U.S. north east?
- 

**Response:**

- a) No direct purchase customers have a Kirkwall obligation. Kirkwall is not currently an option for obligated deliveries.
- b) Union expects direct purchase customers to explore all gas sourcing alternatives, including shale gas production areas in the U.S north east. Interest expressed by direct purchase customers to date has been to shift Parkway delivery obligations to Dawn and source gas at Dawn. Customers have the option of bringing gas on to the Union system at Kirkwall (or any other point) and contracting for a service to move this gas from these points to their point of obligation.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 31

- a) For a customer that has taken advantage of turnback of TCPL capacity, but has maintained Parkway delivery obligations, please provide an example of how the transition would take place. For example, if a customer has a total Parkway obligation of 2,000 GJ/day of which 500 are Western deliveries transported to Parkway using TCPL capacity assigned to them by Union, and no in-franchise M12 capacity, please show the Step 3 calculations in Figure 1 for this customer and further extend the analysis to a Step 4 that shows the shifted obligation and remaining obligation between deliveries at Parkway and deliveries at Empress and assigned TCPL capacity.
- b) In the above note scenario, using the 36% transition ratio shown in Figure 1, the direct purchase customer would have shifted obligations of about 720 GJ/day from Parkway to Dawn. Could the customer request that all of their Western deliveries (500 in this example) be moved to Dawn, along with an additional 220 GJ of deliveries at Parkway, with all of the upstream TCPL transportation capacity that has been assigned to the customer by Union reverting back to Union? If not, please explain why not.
- c) What will Union do with the TCPL capacity that is turned back? Will Union reduce its contracted capacity on TCPL to reflect this turnback from direct purchase customers or will Union shift purchases for system gas customers from Dawn to Parkway in order to utilize this TCPL capacity to Parkway? Please explain fully.

---

**Response:**

- a) The contract's Ontario Parkway delivery obligation (i.e. without an allocation of upstream capacity from Union) would be reduced first, before the Western component. This minimizes the amount of upstream transportation capacity that would be turned back to Union to manage on behalf of its sales service customers until the upstream transportation capacity contract expired/renewed. This is consistent with the approach taken for DCQ decreases. The Obligated Daily Contract Quantity Policy (Policy #: 05-DP-DCQS-009), p. 3 (available at <http://www.uniongas.com/about-us/policies>) stipulates that "DCQ decreases will be managed by first decreasing Ontario Points of Receipt".

Table 1

	<b>Initial Obligations</b>	<b>Resulting Obligations after initial shift</b>
Ontario Parkway	1,500 GJ/d	722 GJ/d (applied to Ontario Parkway as per policy)
Western	500 GJ/d	500 GJ/d
Total Parkway	2,000 GJ/d	1,278 GJ/d
Total Dawn	0 GJ/d	722 GJ/d
Total Obligation	2,000 GJ/d	2,000 GJ/d
Transition ratio	36.1% (applied to Total Parkway)	
Obligation shift	722 GJ/d	

b) Please see the response at part a).

The customer was originally allocated upstream capacity from Union to support their consumption needs. To the extent that the customer has replaced or supplemented that allocated capacity with their own arrangements, it is expected that the customer would adjust those arrangements first. This reduces the amount of returned upstream capacity that Union would need to manage in the portfolio for sales service customers.

c) Please see the response at Exhibit B1.9.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 37

Please explain why there is no change in the Union North in-franchise design day demands shown in Table 3. Please also explain why the net impact in Table 3 does not sum to zero as it does in Table 4.

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**Response:**

- i) The Union North in-franchise distance weighted design day demands of  $2,017 \times 10^6 \text{ m}^3 \text{ km/d}$  shown at Exhibit A, Tab 4, Table 3 reflect Union North design day demands of  $8.81 \times 10^6 \text{ m}^3/\text{d}$  on the Dawn-Parkway transmission system. These design day demands are required to be transported the entire length of the Dawn-Parkway system (approximately 229 km), which results in distance weighted design day demands of  $2,017 \times 10^6 \text{ m}^3 \text{ km/d}$  ( $8.81 \times 10^6 \text{ m}^3/\text{d} \times 229 \text{ km}$ ).

As Union's Parkway delivery obligation proposal does not impact Union North in-franchise customers' use of the Dawn-Parkway transmission system, there is no change in Union North design day demands of  $8.81 \times 10^6 \text{ m}^3/\text{d}$  or the distance these demands are required to be transported on the Dawn-Parkway system. Accordingly, the Union North in-franchise distance weighted design day demands of  $2,017 \times 10^6 \text{ m}^3 \text{ km/d}$  shown in Table 3 do not change.

- ii) The net impact of the distance weighted design day demands in Exhibit A, Tab 4, Table 3 does not sum to zero due to the difference in distances associated with the reduction in Parkway obligated deliveries and M12 demands.

The changes in distance weighted design day demands in Exhibit A, Tab 4, Table 3 reflect a reduction of M12 demands of 379 TJ/d and Parkway obligated deliveries of 379 TJ/d.

The M12 demand reduction of 379 TJ/d includes 122 TJ/d (or  $3.23 \times 10^6 \text{ m}^3$ ) of Dawn to Parkway demands and 257 TJ/d (or  $6.81 \times 10^6 \text{ m}^3$ ) of Dawn to Kirkwall demands. The Dawn to Parkway demands are required to be transported approximately 229 km, while the Dawn to Kirkwall demands are required to be transported approximately 189 km on the Dawn-Parkway system.

The M12 demand reductions reduce the M12 distance weighted demands by  $2,024 \times 10^6 \text{ m}^3 \text{ km/d}$ . The average distance associated with the M12 demand reductions is approximately 202 km.

The Parkway obligated deliveries reduction of 379 TJ/d (or  $10.04 \times 10^6 \text{m}^3$ ) increases the distance the Union South in-franchise design day demands are required to be transported by 223 km. The distance weighted demands associated with 379 TJ/d are  $2,241 \times 10^6 \text{m}^3 \text{ km/d}$ . The calculation of the Union South in-franchise and the M12 distance weighted design day demands is provided in Table 1 below.

Table 1  
Detailed Dawn-Parkway Distance Weighted Design Day Demand Calculation

Line No.	Particulars	Demands		Distance	Distance Weighted Demands
		(TJ) (a)	( $10^6 \text{m}^3$ ) (b)	(km) (c)	( $10^6 \text{m}^3 \times \text{km}$ ) (d)=(b x c)
1	M12 Dawn to Parkway	(122)	(3.23)	229	(740)
2	M12 Dawn to Kirkwall	(257)	(6.81)	189	(1,284)
3	Total M12	(379)	(10.04)	202	(2,024)
4	Union South In-franchise	379	10.04	223	2,241
5	Total (line 3 + line 4)	-	-		217

Exhibit A, Tab 4, Table 4 is based on Dawn compression design day demands, which do not include a distance weighting, and sum to zero because the reductions in the M12 demands and the Parkway obligated deliveries are equal and offsetting.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, pages 43-46

If Union were to increase or decrease obligated deliveries at Parkway on behalf of system gas customers from the current 98 TJ/day level:

- a) Would the allocation of costs be re-estimated annually based on the actual level of obligated gas being delivered at Parkway rather than on the anticipated level in the current proposal?
- b) In the above scenario, please explain how the amount to be recorded in the deferral account would be calculated.

---

**Response:**

- a) Yes. Should Union move all or a portion of the sales service Parkway delivery obligation to Dawn, the cost allocation impacts will be treated the same as the costs to transition the direct purchase Parkway delivery obligation.
- b) Union would calculate the cost allocation impacts of moving the sales service Parkway delivery obligations to Dawn. The deferral account would capture the timing differences between the effective dates of the Parkway delivery obligation changes and the inclusion of the cost impacts in rates the following year.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, pages 45-46

Please confirm the proration in relation to "two months of costs for 2015 through 2018" is due to the November 1 changes shown in Table 1 on page 4.

---

**Response:**

Confirmed.



UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4

- a) Will a direct purchase customer be able to decline to shift a portion of their obligated deliveries from Parkway to Dawn if they so chose?
  - b) Once a customer shifts all or a portion of their obligated deliveries from Parkway to Dawn, can they subsequently shift some of this deliveries back to Parkway without seeking approval from Union, but simply providing Union notice of the change?
  - c) What would be the impact on the deferral account of the situations noted in (a) and (b) above?
- 

**Response:**

- a) Yes. Please refer to the response at Exhibit B1.6 part a).
- b) No. The election to shift the delivery obligation from Parkway to Dawn is permanent. Customers can temporarily change their delivery point location, subject to the "Temporarily Changing Existing Customer Obligated Points of Receipt Policy" Policy#04-DP-BAL-006. This policy is available on Union's website at the following link:  
<http://www.uniongas.com/about-us/policies>.  
  
If customers require a longer term solution, they can consider a transportation service to move gas to Dawn to meet their obligation.
- c) There would be no impact on the deferral account. The deferral account will capture differences in timing between effective dates of the service and the rate change implementation. The deferral account will not capture impacts of a customer not accepting the option of moving their obligation to Dawn.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 37

- a) Based on the Dawn-Parkway distance weighted design day demands, and assuming Union could employ DSM programs or convince some customers to shift some of their consumption from firm to interruptible, which geographical area of Union's South franchise would provide the biggest benefit in terms of reducing the costs allocated to in-franchise customers?
- b) Given the long time horizon through 2019 over which Union could implement measures to reduce design day demands for in-franchise customers and given that some geographical areas would have a bigger impact on the allocation of costs to in-franchise customers, has Union investigated DSM and DSM-type programs that could be used to reduce design day demands? If not, why not?

---

**Response:**

- a) Union's Board-approved cost allocation methodology for the Dawn-Parkway transmission system allocates costs based on a rate class' design day demands and the distance those design day demands are required to be transported on the Dawn-Parkway system. The distance weighted demands and allocation of costs to each rate class will be greater the further the demands are required to be transported on the Dawn-Parkway system.

Assuming that Union South in-franchise design day demands are transported from Dawn, a reduction in those demands at the eastern end of the Dawn-Parkway system (e.g. Oakville, Burlington) would provide the biggest benefit in reducing the costs allocated to Union South in-franchise customers.

- b) No. Union has not investigated DSM programs that would specifically target reducing a customer's peak day demand. Union's DSM programs are primarily focused on reducing the customer's annual natural gas consumption requirements and, while not specifically targeted, in some cases the customer's DSM related activity will indirectly impact their peak day demand. This impact has been factored into the design day demand for in-franchise customers.

UNION GAS LIMITED

Answer to Interrogatory from  
The Consumers Council of Canada ("CCC")

Reference: Exhibit A, Tab 4, page 3

The evidence indicates that large volume direct purchase customers have requested that Union eliminate Parkway obligation because the gas supply cost to direct purchase customers to maintain the obligation exceeds the delivery rate benefit of the obligation. Please provide an illustrative example of the impact of the obligation on a large volume direct purchase customer. Please show the bill impacts on a large volume customer with and without the obligation.

---

**Response:**

Please see the response at Exhibit B2.7 for scenarios on the potential gas cost savings associated with buying gas at Dawn as compared to several alternatives for meeting the Parkway delivery obligation.

Please see the response at Exhibit B1.7, Attachment 1 for the delivery bill impacts of Union's proposal on an average Rate T2 customer.

Please see Table 1 below for the estimated 2019 total bill impact on an average Rate T2 customer. The net savings are approximately \$0.671 million or 2.0% of the annual bill.

Table 1  
Summary of the Parkway Delivery Obligation Proposal  
Delivery Bill Impacts and Gas Cost Savings for an Average Rate T2 customer (1)

Line No.	2019 Annual Bill Impact				
	Delivery	Gas Cost	Net Bill		
	Impact (2)	Savings (3)(4)	Impact	Total Bill	Impact
	(\$)	(\$)	(\$)	(\$)	(%)
	(a)	(b)	(c) = (a + b)	(d)	(e) = (c / d)
1	104,119	(775,576)	(671,456)	33,696,985	(2.0%)

Notes

- (1) Union South Rate T2 Customer with firm contract demand of 669,000 m<sup>3</sup>/day and annual consumption of 197,789,850 m<sup>3</sup>.
- (2) Exhibit B1.7, Attachment 1, Page 2, Line 16, Column (u).
- (3) Gas Cost savings of \$0.103/GJ per Exhibit B2.7, Page 2, Scenario 2.
- (4) Heat Value of 38.07 GJ/10<sup>3</sup>m<sup>3</sup>.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 1, page 11

The evidence indicates that for residential consumers in the North the annual rate decrease is between \$16.54 and \$19.76 per year. For most residential consumers in the South the annual rate increase is approximately \$1.55 per year. Please explain what specific factors account for these differentials between the North and the South.

---

**Response:**

Please see the response at Exhibit B1.2.

UNION GAS LIMITED

Answer to Interrogatory from  
The Consumers Council of Canada ("CCC")

Reference: Exhibit A, Tab 4, page 4

Please explain how, if at all, Union's proposed new facilities were the subject of the LTC proceeding with Enbridge Gas Distribution could impact Union's proposal with respect to the elimination of the Parkway Delivery Obligation. If the Board does not approve the facilities is the proposal impacted in any way?

---

**Response:**

No, Union's Parkway delivery obligation proposal is not dependent on the facilities proposed in Union's Parkway West (EB-2012-0433) or Brantford-Kirkwall/Parkway D (EB-2013-0074) projects.

UNION GAS LIMITED

Answer to Interrogatory from  
The Consumers Council of Canada ("CCC")

Reference: Exhibit A, Tab 4, page 4

The evidence states that effective January 1, 2019, the reduction in the Parkway obligated deliveries and M12 demands results in an increase of costs of approximately \$15.4 million. In addition, the evidence states that the expected delivery rate increase for in-franchise rate classes associated with this reduction in the Parkway Obligation is approximately \$8.5 to \$9 million. Please explain the relationship between these two numbers. For each year, 2014-2019, please set out the delivery rate impacts for each rate class associated with the elimination of the obligation.

---

**Response:**

The \$8.5 to \$9.0 million increase in costs allocated to Union South in-franchise customers refers to the cost allocation impacts and temporarily available capacity costs associated with the initial reduction in the Parkway obligated deliveries of 212 TJ/d, starting January 1, 2015.

The \$15.4 million increase in costs allocated to Union South in-franchise customers refers to the cost allocation impacts associated with the reduction in Parkway obligated deliveries and M12 demands of 379 TJ/d, effective January 1, 2019.

Please see the response at Exhibit B1.7 for the delivery rate impacts by rate class associated with Union's proposal.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 20

The evidence states that after receiving feedback from the POWG, Union revised its proposal. Please explain what “feedback” was received and the rationale for revising the proposal.

---

**Response:**

The proposal presented to the POWG on September 4, 2013 included a transition plan that began on November 1, 2016 with an initial year one reduction in the direct purchase Parkway delivery obligation of 42 TJ/d (7.4%). The proposal was entirely dependent on M12 Dawn to Kirkwall turnback occurring as forecasted. If the turnback did not occur, a reduction in the Parkway delivery obligation would not be possible. The following feedback was received:

- a) Make the transition occur earlier than November 1, 2016;
- b) Increase the magnitude of the initial reduction; and,
- c) Remove the risk of turnback uncertainty.

In response to this feedback, Union revised its September 4, 2013 proposal as follows:

- a) Move the transition date 2.6 years earlier (from November 1, 2016 to April 1, 2014);
- b) Increase the year one obligation reduction from 42 TJ/d (7.4%) to 212 TJ/d (38%); and,
- c) Union will manage the shortfall between 2015 and when Union receives 146 TJ/d of Dawn to Kirkwall turnback.



UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, page 5, Income tax rate change

Please provide the Revenue Canada tax policy changes that result in the increase in Income tax from 25.5% to 26.5 % 2013/2014.

---

**Response:**

The increase in the income tax rate was not a result of a change in Revenue Canada tax policy. The increase was due to a change in the Ontario corporate tax rate.

Previously, Ontario legislation was enacted that would see the Ontario corporate tax rate decrease from 11.5% to 11.0% on July 1, 2012 and a further reduction to 10.0% on July 1, 2013. These reductions produced an annual Ontario corporate tax rate of 10.5%  $((11.0+10.0)/2)$  for 2013.

The 10.5% Ontario rate plus the Federal rate of 15.0% underpins the combined tax rate of 25.5%  $(10.5\% + 15.0\%)$  included in Union's 2013 delivery rates.

In June 2012, legislation was passed which cancelled the previously enacted reductions. Please see Attachment 1. As a result, the Ontario tax rate was frozen at 11.5% and the combined income tax rate for 2013 and forward is 26.5%  $(11.5\% + 15.0\%)$ .

The newly enacted Ontario legislation resulted in an overall 1.0%  $(26.5\% - 25.5\%)$  increase to Union Gas's combined corporate tax rate.



1ST SESSION, 40TH LEGISLATURE, ONTARIO  
61 ELIZABETH II, 2012

1<sup>re</sup> SESSION, 40<sup>e</sup> LÉGISLATURE, ONTARIO  
61 ELIZABETH II, 2012

# Bill 114

*(Chapter 9  
Statutes of Ontario, 2012)*

## An Act to amend the Taxation Act, 2007

**The Hon. D Duncan**  
Minister of Finance

1st Reading	June 20, 2012
2nd Reading	June 20, 2012
3rd Reading	June 20, 2012
Royal Assent	June 20, 2012

# Projet de loi 114

*(Chapitre 9  
Lois de l'Ontario de 2012)*

## Loi modifiant la Loi de 2007 sur les impôts

**L'honorable D. Duncan**  
Ministre des Finances

1 <sup>re</sup> lecture	20 juin 2012
2 <sup>e</sup> lecture	20 juin 2012
3 <sup>e</sup> lecture	20 juin 2012
Sanction royale	20 juin 2012



## EXPLANATORY NOTE

*This Explanatory Note was written as a reader's aid to Bill 114 and does not form part of the law. Bill 114 has been enacted as Chapter 9 of the Statutes of Ontario, 2012.*

The Bill amends the *Taxation Act, 2007* to implement a new personal income tax rate, to make changes to the basic rate of corporate income tax and to make related consequential amendments.

**Personal income tax rate**

An individual's basic personal income tax for a taxation year is determined under section 6 of the Act. Currently, the "highest tax rate" is 11.16 per cent and it applies to an individual's taxable income that exceeds \$73,698 (subject to adjustment for inflation under section 23). Subsection 6 (1) is re-enacted to provide for a new tax rate that applies to an individual's taxable income that exceeds \$500,000. The new tax rate is 12.16 per cent for taxation years ending in 2012 and 13.16 per cent for taxation years ending after 2012. To accomplish this, a new definition of "upper middle tax rate" is added to subsection 3 (1) and the definition of "highest tax rate" in that subsection is amended. The changes to the definition of "highest tax rate" also affect the tax rate that applies to inter vivos trusts under subsection 7 (1), the tax rate that applies to split income under section 12 and the Ontario capital gains refund for mutual fund trusts under section 105.

An amendment is made to subsection 9 (21) of the Act to provide that the tax credit for charitable donations over \$200 continues to be calculated after December 31, 2011 at the rate of 11.16 per cent. A similar amendment is made to section 14 in connection with the overseas employment tax credit.

Section 23 of the Act is amended to provide that the dollar amounts referred to in subsection 6 (1) as re-enacted, including the new \$500,000 threshold, are adjusted for inflation for taxation years ending after 2012.

**Corporate income tax rate**

A corporation's basic rate of income tax is set out in subsection 29 (2) of the Act. Currently, the basic rate of corporate tax is 11.5 per cent for the days in a taxation year after June 30, 2011 and before July 1, 2012, 11 per cent for the days in a taxation year after June 30, 2012 and before July 1, 2013, and 10 per cent for the days in a taxation year after June 30, 2013. Amendments are made to change the basic rate of corporate income tax to 11.5 per cent for the days in a taxation year after June 30, 2011.

Consequential amendments are made to section 31 of the Act with respect to the Ontario small business deduction and to section 33 with respect to the tax credit for manufacturing, processing and other activities.

## NOTE EXPLICATIVE

*La note explicative, rédigée à titre de service aux lecteurs du projet de loi 114, ne fait pas partie de la loi. Le projet de loi 114 a été édicté et constitue maintenant le chapitre 9 des Lois de l'Ontario de 2012.*

Le projet de loi modifie la *Loi de 2007 sur les impôts* pour mettre en oeuvre un nouveau taux d'imposition des particuliers, modifier le taux d'imposition de base des sociétés et apporter des modifications corrélatives.

**Taux d'imposition des particuliers**

L'impôt de base sur le revenu d'un particulier pour une année d'imposition est calculé conformément à l'article 6 de la Loi. Actuellement, le «taux d'imposition le plus élevé» est de 11,16 % et s'applique à l'excédent du revenu imposable d'un particulier sur 73 698 \$ (sous réserve de l'indexation sur l'inflation prévue à l'article 23). Le projet de loi réécrit le paragraphe 6 (1) pour prévoir un nouveau taux d'imposition applicable à la tranche du revenu imposable d'un particulier qui dépasse 500 000 \$. Le nouveau taux d'imposition est de 12,16 % pour les années d'imposition qui se terminent en 2012 et de 13,16 % pour celles qui se terminent après 2012. Cela nécessite l'ajout de la définition de «taux d'imposition moyen supérieur» au paragraphe 3 (1) et la modification de la définition de «taux d'imposition le plus élevé» au même paragraphe. Cette dernière modification a une incidence sur le taux d'imposition applicable aux fiducies non testamentaires dans le cadre du paragraphe 7 (1), sur le taux d'imposition applicable au revenu fractionné dans le cadre de l'article 12 ainsi que sur le remboursement au titre des gains en capital de l'Ontario des fiducies de fonds commun de placement prévu à l'article 105.

Le projet de loi modifie le paragraphe 9 (21) de la Loi pour prévoir que le crédit d'impôt pour les dons de bienfaisance de plus de 200 \$ continue d'être calculé au taux de 11,16 % après le 31 décembre 2011. Une modification similaire est apportée à l'article 14 relativement au crédit d'impôt pour emploi à l'étranger.

L'article 23 de la Loi est modifié pour prévoir l'indexation sur l'inflation des sommes exprimées en dollars au paragraphe 6 (1), tel qu'il est réécrit, y compris le nouveau seuil de 500 000 \$, pour les années d'imposition qui se terminent après 2012.

**Taux d'imposition des sociétés**

Le taux d'imposition de base des sociétés est prévu au paragraphe 29 (2) de la Loi. Actuellement, ce taux est de 11,5 % pour les jours d'une année d'imposition qui tombent après le 30 juin 2011, mais avant le 1<sup>er</sup> juillet 2012, de 11 % pour les jours qui tombent après le 30 juin 2012, mais avant le 1<sup>er</sup> juillet 2013, et de 10 % pour les jours qui tombent après le 30 juin 2013. Le projet de loi modifie ce taux pour le fixer à 11,5 % pour les jours d'une année d'imposition qui tombent après le 30 juin 2011.

Des modifications corrélatives sont apportées à l'article 31 de la Loi à l'égard de la déduction ontarienne accordée aux petites entreprises et à l'article 33 à l'égard du crédit d'impôt pour la fabrication, la transformation et d'autres activités.

**Bill 114**

**2012**

**Projet de loi 114**

**2012**

**An Act to amend the  
Taxation Act, 2007**

**Loi modifiant la  
Loi de 2007 sur les impôts**

Note: This Act amends the *Taxation Act, 2007*. For the legislative history of the Act, see the Table of Consolidated Public Statutes – Detailed Legislative History at [www.e-Laws.gov.on.ca](http://www.e-Laws.gov.on.ca).

Remarque : La présente loi modifie la *Loi de 2007 sur les impôts*, dont l'historique législatif figure à la page pertinente de l'Historique législatif détaillé des lois d'intérêt public codifiées sur le site [www.lois-en-ligne.gouv.on.ca](http://www.lois-en-ligne.gouv.on.ca).

Her Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

Sa Majesté, sur l'avis et avec le consentement de l'Assemblée législative de la province de l'Ontario, édicte :

**1. (1) The definition of “highest tax rate” in subsection 3 (1) of the *Taxation Act, 2007* is repealed and the following substituted:**

**1. (1) La définition de «taux d'imposition le plus élevé» au paragraphe 3 (1) de la *Loi de 2007 sur les impôts* est abrogée et remplacée par ce qui suit :**

“highest tax rate” means,

«taux d'imposition le plus élevé» S'entend de ce qui suit :

- (a) 12.16 per cent in respect of taxation years ending after December 31, 2011 and before January 1, 2013, and
- (b) 13.16 per cent in respect of taxation years ending after December 31, 2012; (“taux d'imposition le plus élevé”)

- a) 12,16 % pour les années d'imposition qui se terminent après le 31 décembre 2011, mais avant le 1<sup>er</sup> janvier 2013;
- b) 13,16 % pour les années d'imposition qui se terminent après le 31 décembre 2012. («highest tax rate»)

**(2) Subsection 3 (1) of the Act is amended by adding the following definition:**

**(2) Le paragraphe 3 (1) de la Loi est modifié par adjonction de la définition suivante :**

“upper middle tax rate” means 11.16 per cent. (“taux d'imposition moyen supérieur”)

«taux d'imposition moyen supérieur» S'entend de 11,16 %. («upper middle tax rate»)

**2. Subsection 6 (1) of the Act is repealed and the following substituted:**

**2. Le paragraphe 6 (1) de la Loi est abrogé et remplacé par ce qui suit :**

**Basic personal income tax, 2012 and subsequent years**

**Impôt de base sur le revenu d'un particulier : 2012 et années postérieures**

(1) The basic personal income tax for a taxation year of an individual ending after December 31, 2011 is the amount determined under the following rules:

(1) L'impôt de base sur le revenu d'un particulier pour une année d'imposition qui se termine après le 31 décembre 2011 correspond au montant calculé selon les règles suivantes :

- 1. If the individual's tax base for the year does not exceed \$39,020, the amount of tax payable by the individual is calculated by multiplying the individual's tax base for the year by the lowest tax rate for the year.
- 2. If the individual's tax base for the year exceeds \$39,020, but does not exceed \$78,043, the amount of tax payable by the individual is calculated using the formula,

- 1. Si l'assiette fiscale du particulier pour l'année ne dépasse pas 39 020 \$, l'impôt payable par lui est calculé en multipliant son assiette fiscale pour l'année par le taux d'imposition le moins élevé pour l'année.
- 2. Si l'assiette fiscale du particulier pour l'année dépasse 39 020 \$, mais ne dépasse pas 78 043 \$, l'impôt payable par lui est calculé selon la formule suivante :

$$A + B$$

$$A + B$$

in which,

où :

“A” is the amount calculated by multiplying \$39,020 by the lowest tax rate for the year, and

«A» représente la somme calculée en multipliant 39 020 \$ par le taux d'imposition le moins élevé pour l'année;

“B” is the amount calculated by multiplying the amount by which the individual’s tax base for the year exceeds \$39,020 by the middle tax rate for the year.

3. If the individual’s tax base for the year exceeds \$78,043, but does not exceed \$500,000, the amount of tax payable by the individual is calculated using the formula,

$$A + C + D$$

in which,

“A” is the amount calculated by multiplying \$39,020 by the lowest tax rate for the year,

“C” is the amount calculated by multiplying \$39,023 by the middle tax rate for the year, and

“D” is the amount calculated by multiplying the amount by which the individual’s tax base for the year exceeds \$78,043 by the upper middle tax rate for the year.

4. If the individual’s tax base for the year exceeds \$500,000, the amount of tax payable by the individual is calculated using the formula,

$$A + C + E + F$$

in which,

“A” is the amount calculated by multiplying \$39,020 by the lowest tax rate for the year,

“C” is the amount calculated by multiplying \$39,023 by the middle tax rate for the year,

“E” is the amount calculated by multiplying \$421,957 by the upper middle tax rate for the year, and

“F” is the amount calculated by multiplying the amount by which the individual’s tax base for the year exceeds \$500,000 by the highest tax rate for the year.

**3. The definition of “II” in subsection 9 (21) of the Act is repealed and the following substituted:**

“II” is 11.16 per cent, and

**4. The definition of “A” in section 14 of the Act is repealed and the following substituted:**

“A” is 11.16 per cent,

**5. Paragraph 1 of subsection 23 (1) of the Act is repealed and the following substituted:**

1. Subsection 6 (1) with respect to taxation years ending after December 31, 2012.

**6. Clauses 29 (2) (c), (d) and (e) of the Act are repealed and the following substituted:**

«B» représente la somme calculée en multipliant l’excédent de l’assiette fiscale du particulier pour l’année sur 39 020 \$ par le taux d’imposition moyen pour l’année.

3. Si l’assiette fiscale du particulier pour l’année dépasse 78 043 \$, mais ne dépasse pas 500 000 \$, l’impôt payable par lui est calculé selon la formule suivante :

$$A + C + D$$

où :

«A» représente la somme calculée en multipliant 39 020 \$ par le taux d’imposition le moins élevé pour l’année;

«C» représente la somme calculée en multipliant 39 023 \$ par le taux d’imposition moyen pour l’année;

«D» représente la somme calculée en multipliant l’excédent de l’assiette fiscale du particulier pour l’année sur 78 043 \$ par le taux d’imposition moyen supérieur pour l’année.

4. Si l’assiette fiscale du particulier pour l’année dépasse 500 000 \$, l’impôt payable par lui est calculé selon la formule suivante :

$$A + C + E + F$$

où :

«A» représente la somme calculée en multipliant 39 020 \$ par le taux d’imposition le moins élevé pour l’année;

«C» représente la somme calculée en multipliant 39 023 \$ par le taux d’imposition moyen pour l’année;

«E» représente la somme calculée en multipliant 421 957 \$ par le taux d’imposition moyen supérieur pour l’année;

«F» représente la somme calculée en multipliant l’excédent de l’assiette fiscale du particulier pour l’année sur 500 000 \$ par le taux d’imposition le plus élevé pour l’année.

**3. La définition de l’élément «II» au paragraphe 9 (21) de la Loi est abrogée et remplacée par ce qui suit :**

«II» représente 11,16 %;

**4. La définition de l’élément «A» à l’article 14 de la Loi est abrogée et remplacée par ce qui suit :**

«A» représente 11,16 %;

**5. La disposition 1 du paragraphe 23 (1) de la Loi est abrogée et remplacée par ce qui suit :**

1. Le paragraphe 6 (1), à l’égard des années d’imposition qui se terminent après le 31 décembre 2012.

**6. Les alinéas 29 (2) c), d) et e) de la Loi sont abrogés et remplacés par ce qui suit :**

- (c) 11.5 per cent multiplied by the ratio of the number of days in the taxation year that are after June 30, 2011 to the total number of days in the taxation year.

**7. Clauses 31 (4) (c), (d) and (e) of the Act are repealed and the following substituted:**

- (c) 7 per cent multiplied by the ratio of the number of days in the taxation year that are after June 30, 2011 to the total number of days in the taxation year.

**8. (1) Subsection 33 (1) of the Act is amended by striking out “ending before July 1, 2013” in the portion before the formula.**

**(2) Clauses (b) and (c) of the definition of “X” in subsection 33 (1) of the Act are repealed and the following substituted:**

- (b) 0.015 multiplied by the ratio of the number of days in the taxation year that are after June 30, 2011 to the total number of days in the taxation year.

**Commencement**

**9. (1) Subject to subsections (2) and (3), this Act comes into force on the day it receives Royal Assent.**

**(2) Sections 1, 2, 3, 4 and 5 are deemed to have come into force on January 1, 2012.**

**(3) Sections 6, 7 and 8 come into force on July 1, 2012.**

**Short title**

**10. The short title of this Act is the *Taxation Amendment Act, 2012*.**

- c) 11,5 % multiplié par le rapport entre le nombre de jours de l'année qui tombent après le 30 juin 2011 et le nombre total de jours compris dans l'année.

**7. Les alinéas 31 (4) c), d) et e) de la Loi sont abrogés et remplacés par ce qui suit :**

- c) 7 % multiplié par le rapport entre le nombre de jours de l'année qui tombent après le 30 juin 2011 et le nombre total de jours compris dans l'année.

**8. (1) Le paragraphe 33 (1) de la Loi est modifié par suppression de «qui se termine avant le 1<sup>er</sup> juillet 2013» dans le passage qui précède la formule.**

**(2) Les alinéas b) et c) de la définition de l'élément «X» au paragraphe 33 (1) de la Loi sont abrogés et remplacés par ce qui suit :**

- b) 0,015 multiplié par le rapport entre le nombre de jours de l'année qui tombent après le 30 juin 2011 et le nombre total de jours compris dans l'année.

**Entrée en vigueur**

**9. (1) Sous réserve des paragraphes (2) et (3), la présente loi entre en vigueur le jour où elle reçoit la sanction royale.**

**(2) Les articles 1, 2, 3, 4 et 5 sont réputés être entrés en vigueur le 1<sup>er</sup> janvier 2012.**

**(3) Les articles 6, 7 et 8 entrent en vigueur le 1<sup>er</sup> juillet 2012.**

**Titre abrégé**

**10. Le titre abrégé de la présente loi est *Loi de 2012 modifiant la Loi sur les impôts*.**

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, page 7, Section 4.4

Please explain in terms of the Settlement why the base amount of UFG for 2014 is based on a fulcrum point calculated based on the UFG cost in current rates based on 2013 volume forecast of 70,253  $10^3\text{m}^3$  with a Jan 1, 2013 WACOG of \$210.506/  $10^3\text{m}^3$ .

---

**Response:**

As per Union's IRM evidence (EB-2013-0202, Section 4.7.4) and the evidence filed in this proceeding, the amount to be recorded in the UFG volume deferral account will be calculated using the most recent Board-approved WACOG. The Board-approved total UFG volume of 70,253  $10^3\text{m}^3$  will be multiplied by the most recent Board-approved WACOG to determine the UFG in rates.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Page 8, Section 4.5

Preamble: The capital cost of the Parkway West Project exceeds \$50 million (\$219.4 million as filed in EB-2012-0433 on August 23, 2013).

- a) Please provide details based on EB-2012-0433 evidence record of the calculation and accounting for the PW Capital Cost in terms of 2014 Revenue Requirement and PW Capital Variance account.
- b) Please explain the treatment of the PW capital cost if the Board provides a Decision not approving the costs for 2014.
- c) Specifically, since the assets are not in service, why should PW be included in the 2014 Revenue Requirement?
- d) Why would the Deferral Account be required and what if any would be the corresponding adjustment to the 2014 Revenue requirement?
- e) Why should Union not recover/refund the costs associated with the project included in 2014 rates instead of via its annual deferral account disposition proceeding in 2015?

---

**Response:**

- a) Please see Attachment 1, EB-2012-0433, Updated Schedule 12-1, for the forecasted Parkway West Project revenue requirement from 2014 to 2018. This information can also be found at EB-2013-0365, Rate Order, Appendix G. Please see Attachment 2 for the draft accounting order, as filed at EB-2012-0433, Schedule 12-7, p.1.
- b) As described at Exhibit A, Tab 1, p.9, Union expects the Board to issue a decision in the EB-2012-0433 proceeding in the first quarter of 2014. Should the Board not approve the Parkway West Leave-to-Construct application, Union will recover/refund the costs associated with the project included in 2014 rates as part of its annual deferral account disposition proceeding in 2015.

Alternatively, should the Board not approve the Parkway West Leave-to-Construct application prior to issuing its decision in Union's 2014 rate application, Union could remove the costs associated with the project from its proposed 2014 rates.



- c) Please see the response at Exhibit B1.1.
- d) Please see Attachment 2. The Parkway West Project Costs deferral account is required to capture “the difference between the actual revenue requirement related to the costs for the Parkway West Project and the revenue requirement included in rates as approved by the Board.”
- e) Portions of the Parkway West project are in service in 2014 and therefore costs and variances to those costs are captured in 2014 rates. Please see the response at Exhibit B1.1.

UNION GAS LIMITED  
Parkway West Project Revenue Requirement

Line No.	Particulars (\$000's)	Revenue Requirement				
		2014	2015	2016	2017	2018
		(a)	(b)	(c)	(d)	(e)
	<u>Operating Expenses:</u>					
1	Operating and Maintenance Expenses (1)	0	739	1,615	1,649	1,683
2	Depreciation Expense (2)	485	3,026	5,094	5,105	5,105
3	Property Taxes (3)	236	290	510	521	532
4	Total Operating Expenses	<u>721</u>	<u>4,055</u>	<u>7,218</u>	<u>7,274</u>	<u>7,320</u>
5	Required Return (4)	518	5,898	12,306	12,032	11,737
	<u>Income Taxes:</u>					
6	Income Taxes - Equity Return (5)	104	1,182	2,466	2,411	2,352
7	Income Taxes - Utility Timing Differences (6)	<u>(1,618)</u>	<u>(4,762)</u>	<u>(5,534)</u>	<u>(4,536)</u>	<u>(3,672)</u>
8	Total Income Taxes	<u>(1,515)</u>	<u>(3,580)</u>	<u>(3,068)</u>	<u>(2,124)</u>	<u>(1,320)</u>
9	Total Revenue Requirement	<u><u>(276)</u></u>	<u><u>6,373</u></u>	<u><u>16,457</u></u>	<u><u>17,182</u></u>	<u><u>17,737</u></u>

Notes:

- (1) 2018 O&M expenses include \$0.488 million in salary, wages and employee expenses, \$0.711 million in contract services and \$0.485 million in materials, utility cost, and company used fuel.
- (2) Depreciation expense at 2013 Board-approved depreciation rates.
- (3) Property taxes include \$0.247 million for land purchases, \$0.195 million for LCU compression and \$0.090 million for pipeline and building
- (4) The required return for 2018 assumes total rate base of \$203.254 million and 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:  

$$\begin{aligned} &\$203.254 \text{ million} * 64\% * 4\% = \$5.203 \text{ million plus} \\ &\$203.254 \text{ million} * 36\% * 8.93\% = \$6.534 \text{ million for a total of } \$11.737 \text{ million.} \end{aligned}$$
- (5) Taxes related to the equity component of the return at a tax rate of 26.5%.
- (6) 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.

# DRAFT

## UNION GAS LIMITED

### **Accounting Entries for Parkway West Project Costs Deferral Account No. 179-XXX**

Filed: 2014-01-30  
EB-2012-0433 EB-2013-0365  
Schedule 12-7 Exhibit B4.3  
Page 1 Attachment 2

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 - Parkway West Project Costs

Credit                   -        Account No. 579  
                                      Miscellaneous Operating Revenue

To record, as a debit (credit) in Deferral Account No. 179-XXX, the difference between the actual revenue requirement related to the costs for the Parkway West Project and the revenue requirement included in rates as approved by the Board.

Debit                    -        Account No.179 -XXX  
                                      Other Deferred Charges - Parkway West Project Costs

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.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab1, Page 10, Section 5, NAC Adjustment Table 2

- a) Please show historic 2010-2013 NAC changes for rate classes broken down between Forecast, LRAM and Actual.
  - b) Please provide an estimate for each class of the RR impact of a 100% error in NAC Forecast change vs Actual e.g. if Rate M1 stays the same as 2013 and the same for each GS rate.
- 

**Response:**

- a) Please see Attachment 1.
- b) The table below indicates the estimated NAC deferral amounts for each rate class in 2014 if the normalized average consumption in 2014 equals that observed in 2013.

**ESTIMATED 2014 NAC DEFERRAL AMOUNTS: \$ 000**

<u>Service Class</u>	<u>Rate Class</u>	<u>Annual Estimate</u>
Total Southern	M1	-\$739.6
	M2	-\$1,159.7
Total Northern	01	-\$105.0
	10	-\$390.1
<b>TOTAL</b>		<b>-\$2,394.5</b>

Union South Rates include volumetric delivery and storage related rate charges. Union North Rates include volumetric delivery rates, storage and transportation rate charges.

**Annual Usage per Customer: m<sup>3</sup>**

**Rate M1**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
	<b>Actual</b>	<b>Actual</b>	<b>Forecast</b>	<b>LRAM</b>
<b><u>Year</u></b>	<b><u>Use</u></b>	<b><u>NAC</u></b>	<b><u>NAC</u></b>	<b><u>Impact</u></b>
2010	2,737	2,834	2,827	9
2011	2,838	2,861	2,847	11
2012	2,470	2,797	2,860	8
2013	2,869	2,768	2,778	7

**Rate M2**

	<b>Actual</b>	<b>Actual</b>	<b>Forecast</b>	<b>LRAM</b>
<b><u>Year</u></b>	<b><u>Use</u></b>	<b><u>NAC</u></b>	<b><u>NAC</u></b>	<b><u>Impact</u></b>
2010	155,960	160,402	187,846	1,196
2011	171,622	173,578	173,533	1,392
2012	152,757	167,511	146,863	1,380
2013	174,895	169,422	143,867	1,656

**Rate 01**

	<b>Actual</b>	<b>Actual</b>	<b>Forecast</b>	<b>LRAM</b>
<b><u>Year</u></b>	<b><u>Use</u></b>	<b><u>NAC</u></b>	<b><u>NAC</u></b>	<b><u>Impact</u></b>
2010	2,737	2,963	2,908	5
2011	2,921	2,986	2,944	9
2012	2,685	2,946	2,850	6
2013	3,049	2,900	2,765	4

**Rate 10**

	<b>Actual</b>	<b>Actual</b>	<b>Forecast</b>	<b>LRAM</b>
<b><u>Year</u></b>	<b><u>Use</u></b>	<b><u>NAC</u></b>	<b><u>NAC</u></b>	<b><u>Impact</u></b>
2010	145,575	155,429	142,653	465
2011	159,621	162,838	155,499	956
2012	157,421	169,942	157,959	1,907
2013	176,009	168,975	157,381	1,736

Column B Actual use is actual consumption.

Column C Actual NAC is column B weather normalized according to the normal set for each specific year.

Column D Forecast NAC is the usage estimate for the budget year; the weather normal for each year is recalculated according to the Board-approved methodology.

Column E The LRAM volume is based on audited volumes divided by average number of customers in the rate class.

The weather normal for years 2010 through 2012 is based on the Board-approved 55:45 methodology.

The weather normal for 2013 is based on the Board-approved 50:50 methodology.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab1, Page 15, Section 8, Deferral Accounts

- a) Please explain why the PW Capital Variance account is not listed in this application.
  - b) Please provide accounting details.
  - c) Please explain why the Upstream FT-RAM 179-130 Account is required in 2014 given the program ended in 2013?
- 

**Response:**

- a) In its Parkway West application (EB-2012-0433), Union applied for an order approving the accounting order to establish the Parkway West Cost Deferral Account. Union proposed to track any variance between what is approved in rates for the Project and the actual annual revenue requirement of the Project in this new deferral account and dispose of any balance as part of Union's annual non-commodity deferral account proceeding. This deferral account is not listed in this application because Union has not received the EB-2012-0433 Decision approving the deferral account.
- b) Please see the response at Exhibit B4.3, Attachment 2.
- c) The Upstream FT-RAM deferral account, 179-130, is still required in this application as any variances, depending on the Board's EB-2013-0109 decision, will be disposed of at a future date.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 2

Preamble: Union filed an updated Black & Veatch (“B&V”) report for the allocation of costs between Union’s regulated and unregulated businesses in response to the Board’s directive in EB-2011-0210. The report includes findings and recommendations.

- a) Please confirm Union has responded to all of the recommendations in the report.
- b) Please confirm any changes made or proposed changes to the cost allocations.
- c) Please discuss the impact on ratepayers as a result of the B&V report.
- d) Page 3 - Please provide the summary table of the allocation methodologies used to separate the costs between Union’s regulated and unregulated business from EB-2011-0210.

---

**Response:**

- a) Union confirms that it has responded to all of the recommendations in the report.

The B&V report recommends that Union “Establish more robust documentation in Union’s regulatory filings to provide a complete understanding and explanation of the process Union utilizes to update its cost allocation factors each year, and provide representative computational support to explain and illustrate how the changes made to Union’s cost allocation factors are derived” (EB-2013-0365, Tab 2, Appendix A, p. 6).

In response to this recommendation, please see Exhibit A, Tab 2, pp. 5 - 15, where Union provided a detailed description of the methodologies used to allocate costs between Union’s regulated and unregulated business by cost type.

- b) The B&V report did not recommend any changes to Union’s cost allocations between its regulated and unregulated businesses.
- c) The B&V report provides an independent review confirming that Union has appropriately applied the methodologies to allocate storage costs between Union’s regulated and unregulated business.
- d) Please see Attachment 1.

1

2

**Summary of Allocation Between  
Union's Regulated and Unregulated Storage Operation**

<b>EB-2005-0520 Board-approved cost allocation methodology</b>	<b>Methodology used to allocate costs to Union's unregulated storage operations</b>
<u>Existing Underground Storage Assets</u>	<u>Existing Underground Storage Assets</u>
<p>Certain assets (specific structures, measuring and regulating and compression assets) in the Dawn Station yard are installed solely for transmission purposes and are directly assigned to the transmission function. These assets include the meter runs into the Dawn-Trafalgar system, metering at Tecumseh, Oil Springs and TCPL, and the Great Lakes header. The Dawn Plant E compressor is not directly assigned to transmission in Union's Board-approved cost allocation study.</p>	<p>Consistent with the Board-approved 2007 cost allocation methodology, the meter runs into the Dawn-Trafalgar system, metering at Tecumseh, Oil Springs and TCPL, and the Great Lakes header are directly assigned to the transmission function. In addition, the Dawn Plant E compressor, which was installed to provide transmission compression from Dow-Moore into the Dawn-Trafalgar system, was directly assigned to transmission.</p>
<p>Compression-related assets that are not directly assigned to transmission provide both storage and transmission services at Dawn and are allocated between storage and transmission functions based on horsepower requirements.</p> <p>Union's Board-approved 2007 cost allocation study allocated 44.4% of Dawn compression related costs to the storage function and 55.6% of Dawn compression-related costs to the transmission function. These factors were applied to total compression-related costs.</p>	<p>Compression-related assets were allocated at the individual asset level. Outboard storage compressors located at Union's storage pools are directly assigned to storage. As noted above, the Dawn Plant E compressor was directly assigned to transmission. Compression-related costs of assets that are used to provide storage and transmission services were split between storage and transmission based on a horsepower allocation that excluded the outboard storage compressors and the Dawn Plant E compressor.</p> <p>This resulted in an adjusted Board-approved horsepower allocation that allocates 52.7% of Dawn compression-related costs to the storage function and 47.3% of Dawn compression-related costs to the transmission function. These factors were used for the one-time separation of the assets.</p>

3



<p>Measuring and regulating equipment assets that are not directly assigned to transmission provide both storage and transmission services at Dawn and are allocated between storage (26%) and transmission (74%) based on the forecasted activity into and out of Dawn. The storage costs are classified as deliverability.</p> <p>Storage deliverability costs are allocated to rate classes based on design day demands from storage (the NETFROMSTOR allocator), which allocated 39.2% of these storage costs to ex-franchise storage services. The result is that 10.2% of allocated M&amp;R costs are allocated to ex-franchise storage services.</p>	<p>For measuring and regulating equipment assets that are not directly assigned Union used the 2007 Board-approved split of assets between storage and transmission and allocated the storage assets to unregulated storage using an average storage space and deliverability allocator of 37.7%. The result was an allocator for measuring and regulating equipment of 9.9% for unregulated operations. These factors were used for the one-time separation of the assets.</p>
<p>Storage land, land rights, buildings, wells and lines and base pressure gas are classified between space, deliverability and system integrity, and are allocated to ex-franchise storage services based on space, deliverability and system integrity allocators.</p>	<p>Storage assets were allocated to unregulated storage using an average storage space and deliverability allocator of 37.7%. These factors were used for the one-time separation of the assets.</p>
<p><u>General Plant</u></p>	<p><u>General Plant</u></p>
<p>In Union's Board-approved 2007 cost allocation study, general plant assets are assigned to the storage function in proportion to net plant and O&amp;M and classified in the same manner. Costs are allocated to ex-franchise storage services based on the space, deliverability, commodity and system integrity allocators.</p>	<p>General plant is separated into two categories to determine the allocation factor for the unregulated storage operations.</p> <p>The vehicle and heavy equipment allocator was determined using the relative asset value of vehicles used in the Storage &amp; Transmission Operation compared to the total value of vehicles and heavy equipment for all of Union (11.9%). Vehicle assets applicable to Union's unregulated storage operations were allocated using the average space and deliverability factor used for other storage assets (37.7%). This results in an allocation for</p>

	<p>vehicles of 4.5% for unregulated operations.</p> <p>The second category of general plant includes all other categories of general plant. These assets were allocated to the unregulated storage operations using an allocation factor that combines storage assets and storage O&amp;M. The percentage of unregulated storage to total plant (3.32%) is averaged with percentage of allocated support costs to total O&amp;M (2.52%). This results in an allocation for other general plant of 2.92% for unregulated operations.</p>
<u>Working Capital</u>	<p>Inventory of stores, spare equipment and prepaid and deferred expenses are allocated to unregulated storage in proportion to the allocation of total storage net plant.</p> <p>Cash working capital is calculated using regulated O&amp;M and cost of gas.</p>
<u>Taxes</u>	<p><u>Property Taxes</u></p> <p>Property tax related to the assets at Dawn is allocated between unregulated storage and regulated utility operations in proportion to the allocation of total storage gross plant.</p> <p><u>Deferred Tax Drawdown</u></p> <p>The deferred tax drawdown is allocated based on the split of the December 31, 1996 plant balance between regulated and unregulated. The result is an allocation factor of 10.3%.</p> <p><u>Accumulated Deferred Taxes</u></p> <p>The accumulated deferred tax balance associated with the December 31, 1996 plant balance was allocated using the same allocation factor as</p>

	described under the deferred tax drawdown allocation (10.3%).
<u>Operating &amp; Maintenance Expenses</u>	<u>Operating &amp; Maintenance Expenses</u>
O&M is allocated based on an analysis of activities or in the same manner as the underlying assets. Costs are allocated to ex-franchise storage services based on the space, deliverability, commodity and system integrity allocators.	<p>Actual O&amp;M related to the operation of the storage facilities was allocated to the unregulated storage operation using the same allocators applied to the assets for that facility.</p> <p>Administrative and general expenses and benefits in support of unregulated storage operations were allocated in proportion to storage O&amp;M.</p> <p>O&amp;M costs related to the development of new storage assets are assigned based on an estimate of time spent annually on the development of unregulated projects.</p> <p>O&amp;M costs related to the Regulatory department for development of new storage assets, are assigned based on an estimate of time spent annually on the development of unregulated projects.</p>
<u>Cost of Gas</u>	<u>Cost of Gas</u>
The compressor fuel budget is allocated to storage and transmission in proportion to forecast volume. Storage fuel is allocated to ex-franchise storage services in proportion to forecast volume.	The storage compressor fuel forecast is allocated based on estimated unregulated storage activity.
Unaccounted for gas (UFG) costs are allocated to storage and transmission in proportion to forecast volume. Storage UFG is allocated to ex-franchise storage services in proportion to forecast volume.	The unaccounted for gas costs in the 2013 forecast are allocated based on estimated unregulated storage activity. The UFG allocation factor is the ratio of unregulated storage volumes to Union's total storage and transportation volumes.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 3, Page 2

Preamble: The evidence indicates Union will send a final notification to all M4 and M5A customers that are required to transition to M7 due to their usage profile, at the start of the calendar year prior to implementation to remind them of the rate class change.

Please provide an update on when Union will be issuing this final notification and provide a copy.

---

**Response:**

Union issued the final notification to the transitioning M7 customers on January 9, 2014. Please see Attachment 1 for the notification.

Subject line: **Reminder: Your gas distribution rate has changed to M7 on January 1, 2014**

Dear John,

As we have previously discussed, the eligibility requirements for our bundled contract rate classes M4, M5A and M7 have changed. This is a reminder that your previous M4/M5A rate class has transitioned to rate M7 on January 1, 2014.

You will see these changes effective on your January invoice (received in February 2014).

Please feel free to contact me directly if you have any further questions about this transition.

Regards,

John Smith  
Account Manager  
Contact Info

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 3, Page 3

Preamble: Union indicates that it intends to send an email communication (Enerline and Factsline) in the fourth quarter of 2013 to advise customers that it has added an interruptible component to its M4 rate class.

Please confirm this communication has been issued.

---

**Response:**

The specified communication was not distributed as described. Further review of the service after the evidence was submitted showed that adding a large interruptible component onto the existing firm M4 service will have applicability to only a select group of customers. A direct broad-based communication to all customers on the introduction of this service could cause confusion as this service would not be applicable to most customers. Instead, Union will directly target communication of this service to the specific customers that have the usage profile that supports both a large firm and interruptible gas requirement through direct contact with the customer during the annual contract renewal process.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: EB-2011-0210 Decision dated October 24, 2012, Page 98

Preamble: The Board's Decision notes that LPMA is concerned with the communication that large M2 customers may receive about the movement from Rate M2 to Rate M4 as the impact on the large M2 customer can be positive or negative, depending on the load factor. Customers with a low load factor could end up paying more under Rate M4 than they did under Rate M2.

- a) Please discuss Union's communication with the Rate M2 customer class.
- b) Please discuss if a comparison of annual costs based on both Rates M2 and M4 was undertaken and if the impacts were communicated to Rate M2 customers. If not, why not.
- c) Please provide copies of any correspondence (to Rate M2 customers) undertaken or planned.

---

**Response:**

- a) Please see the response at Exhibit B2.2.
- b) Please see the response at Exhibit B2.2.
- c) Sample copies of the correspondence with M2 customers can be found at EB-2013-0365, Exhibit A, Tab 3, Appendix B.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Page 1

Preamble: Union is, proposing to transition the Parkway delivery obligation to Dawn using temporarily available Dawn-Parkway capacity, shortfall capacity, expected Dawn-Kirkwall turnback capacity from ex-franchise customers and Dawn-Parkway turnback capacity from in-franchise customers (some direct purchase customers have chosen to contract for M12 capacity directly to meet their Parkway delivery obligation and source their supply at Dawn).

- a) Please provide an indication of which of these capacity forecasts is part of the current gas supply plan.
- b) Indicate by year 2014-2019 which of these are subject to contracts terminating, non-renewals
- c) What will happen to the P.O. transition if the capacities differ from forecast -positive and negative.

---

**Response:**

- a) None. The capacity options listed do not impact the sales service gas supply plan.
- b) Tab 4, p.4, Table 1, illustrates the forecast amount of turnback capacity by year. All of these contracts are due for renewal during the year indicated in Table 1. However, Union has not yet received official notification of non-renewal from customers holding this capacity.
- c) Union expects customers to turnback on the Dawn to Kirkwall path given the changes to flows at Kirkwall. If turn back is less than expected, other options could be considered to continue the transition from a Parkway delivery obligation to a Dawn delivery obligation beyond the 146 TJ/d. If actual Dawn to Kirkwall turn back is more than forecasted, the transition to a Dawn delivery obligation would increase.



UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Page 3

Preamble: Approximately 564 TJ/d of direct purchase customers' DCQ are obligated to be delivered at Parkway, either directly or through upstream capacity allocated from Union.

- a) How much of System/Sales customers' gas is obligated to be delivered at Parkway in each of the 2014-2019 transition years. Include in the response a clear indication of the commitments to TCPL under the Proposed TCPL Union Enbridge and GMI Settlement.
- b) Please provide the forecast of Direct Purchase and Sales deliveries to Dawn for the transition period.

---

**Response:**

- a) Please see the response at Exhibit B1.9.
- b) Please see the table below identifying the forecast of direct purchase and sales service deliveries to Dawn for the transition period.

**Dawn Deliveries (TJ/d)**

Year	Direct Purchase*	Sales Service*
2014	457	197
2015	457	197
2016	457	289
2017	457	289
2018	624	289
2019+	809	289

\* For direct purchase, January-March, 2014 is 245 TJ/d. An increase of 212 TJ/d is proposed to be effective April 1, 2014. All other increases are per Union's proposal and will be implemented November 1 each year, dependent upon magnitude and timing of Dawn-Kirkwall turnback. For sales service, January-March, 2014 is 202 TJ/d. A decrease of 5 TJ/d to 197 TJ/d is proposed to be effective April 1, 2014.

This forecast does not contemplate load growth over the transition period.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Page 3

Preamble: Dawn-Parkway costs are allocated to Union South in-franchise rate classes on the basis of Dawn-Parkway design day demands, the primary beneficiary of the “distance credit” are Union South general service rate classes (Rate M1 and Rate M2).

- a) Please quantify the 2013 distance credit relative to Dawn–Parkway costs allocated to rates M1 and M2.
  - b) Please provide the quantitative impact on the “credit” and rates for each year of the Transition Period 2014-2019.
- 

**Response:**

- a) In response to Parkway Obligation Working Group information requests, Union provided the cost allocation impacts associated with no Parkway obligated deliveries in August 2013. The analysis assumed a reduction of Parkway obligated deliveries from 639,000 GJ/day to zero and an equal and offsetting decrease to M12 demands in the 2013 Board-approved cost allocation study. The detailed schedule showing the cost allocation impacts to the 2013 Board-approved revenue requirement is provided at EB-2013-0365, Tab 1, Appendix E, Attachment 1.

Based on this analysis, Union South in-franchise delivery rates are lower by approximately \$23.9 million (i.e. the “distance credit”) as a result of Parkway obligated deliveries of 639,000 GJ/day. Of this amount, approximately \$15.3 million (or 64%) is allocated to the Rate M1 and Rate M2 rate classes. Please see Attachment 1, column a) for a breakdown of the \$23.9 million by Union South in-franchise rate class.

- b) To determine the impact on the “distance credit” to Union South in-franchise rate classes resulting from Union’s Parkway delivery obligation proposal, Union compared the \$23.9 million credit described in part a) to the proposed rate changes and deferral impacts associated with Union’s proposal.

By January 1, 2019, Union estimates that the “distance credit” will be reduced from approximately \$23.9 million to \$8.5 million. In other words, Union South in-franchise delivery rates will increase by \$15.4 million. For the Rate M1 and Rate M2 rate classes, the “distance credit” will be reduced from \$15.3 million to \$5.3 million, for an increase in delivery rates of \$10 million.

Please see Attachment 1 for the estimated “distance credit” calculation for each year of Union’s Parkway delivery obligation proposal.

UNION GAS LIMITED

Estimated Impact of the "Distance Credit" associated with the Parkway Obligated Deliveries by Union South In-franchise Rate Class

Line No.	Particulars (\$000's)	Estimated 2013 Board Approved "Distance Credit" (1)	2014 Proposed Deferral and Rate Changes (2)	Estimated 2014 "Distance Credit" (c) = (a + b)	2015 Proposed Deferral and Rate Changes (3)	Estimated 2015 "Distance Credit" (e) = (a + d)	2016 Proposed Deferral and Rate Changes (4)	Estimated 2016 "Distance Credit" (g) = (a + f)	2017 Proposed Deferral and Rate Changes (5)	Estimated 2017 "Distance Credit" (i) = (a + h)	2018 Proposed Deferral and Rate Changes (6)	Estimated 2018 "Distance Credit" (k) = (a + j)	2019 Proposed Deferral and Rate Changes (7)	Estimated 2019 "Distance Credit" (m) = (a + l)
		(a)	(b)	(c) = (a + b)	(d)	(e) = (a + d)	(f)	(g) = (a + f)	(h)	(i) = (a + h)	(j)	(k) = (a + j)	(l)	(m) = (a + l)
1	Rate M1	(11,446)	862	(10,584)	1,148	(10,298)	1,401	(10,044)	2,260	(9,186)	4,757	(6,688)	7,450	(3,995)
2	Rate M2	(3,867)	290	(3,576)	387	(3,480)	472	(3,395)	762	(3,105)	1,605	(2,262)	2,514	(1,353)
3	Rate M4	(1,209)	89	(1,120)	118	(1,091)	143	(1,066)	233	(977)	493	(717)	774	(435)
4	Rate M5	(204)	11	(193)	14	(190)	16	(188)	28	(176)	64	(140)	107	(97)
5	Rate M7	(542)	40	(502)	53	(489)	65	(477)	105	(437)	222	(320)	349	(193)
6	Rate M9	(207)	15	(192)	20	(187)	24	(183)	39	(168)	84	(124)	132	(76)
7	Rate M10	(5)	0	(5)	1	(5)	1	(4)	1	(4)	2	(3)	3	(2)
8	Rate T1	(722)	50	(672)	67	(656)	80	(642)	131	(591)	282	(441)	447	(276)
9	Rate T2	(4,371)	311	(4,060)	414	(3,957)	499	(3,872)	813	(3,558)	1,734	(2,637)	2,740	(1,631)
10	Rate T3	(1,338)	99	(1,238)	133	(1,205)	162	(1,176)	261	(1,077)	551	(787)	865	(473)
11	Total South In-franchise	(23,911)	1,768	(22,143)	2,355	(21,556)	2,863	(21,048)	4,634	(19,277)	9,794	(14,117)	15,381	(8,531)

Notes:

- (1) As provided at EB-2013-0365, Appendix E, Attachment 1. Cost allocation assumes that Parkway obligated deliveries are reduced from 639,000 GJ/day to zero through an equivalent amount of M12 turnback. No incremental facilities.
- (2) Deferral amounts provided in Exhibit B1.7, Attachment 2, page 3, column (f).
- (3) Includes 2015 rate changes provided at EB-2013-0365, Schedule 1, column (f).
- (4) Includes 2016 rate changes provided at EB-2013-0365, Schedule 2, column (f) and deferral amounts provided in Exhibit B1.7, Attachment 2, page 4, column (f).
- (5) Includes 2017 rate changes provided at EB-2013-0365, Schedule 3, column (f) and deferral amounts provided in Exhibit B1.7, Attachment 2, page 5, column (f).
- (6) Includes 2018 rate changes provided at EB-2013-0365, Schedule 4, column (f) and deferral amounts provided in Exhibit B1.7, Attachment 2, page 6, column (f).
- (7) Includes 2019 rate changes provided at EB-2013-0365, Schedule 5, column (f).

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Page 4, Table 1

Preamble: Union is proposing to transition the Parkway delivery obligation to Dawn using temporarily available Dawn-Parkway capacity, shortfall capacity, expected Dawn-Kirkwall turnback capacity from ex-franchise customers and Dawn-Parkway turnback capacity from in-franchise customers.

- a) Please explain Line 2 Temporary/Shortfall capacity and the assumptions how this continues to be available beyond 2014 since it is required to meet firm contractual commitments.
- b) Please explain the assumption (Line 4) that this capacity will be replaced by in-franchise Dawn-Parkway M12 capacity.

---

**Response:**

- a) Exhibit A, Tab 4, Table 1, line 2, outlines the quantity of Dawn to Parkway capacity that is used to reduce the Parkway delivery obligation through the use of temporarily available capacity until October 31, 2015. As of November 1, 2015, and until Union receives 146 TJ/d of Dawn to Kirkwall turnback, there is insufficient capacity. Union proposes to continue to hold the reduced Parkway obligated delivery quantities for direct purchase customers and manage the shortfall and the costs that are included in rates for the temporary capacity accordingly. As described at Exhibit A, Tab 4, p.23, Union will manage the shortfall using an appropriate combination of resources to best manage its risk and underlying commitment to rate certainty for customers in this proposal. As the forecasted turnback included in Line 3 is received it will reduce the shortfall to be managed.

Please see the response at Exhibit B7.5 for Union's proposal to manage the reduction in the Parkway delivery obligation from November 1, 2015 until the Dawn to Kirkwall transportation turnback is received.

- b) As outlined in Exhibit A, Tab 4, Section 6.2.1, lines 4-9, Union will offer all in-franchise customers who have contracted for M12 Dawn to Parkway transportation service the option to reduce their transportation contract and at the same time, transition their Parkway delivery obligation to Dawn. These in-franchise customers may do so on the same proportional basis and timing as all other customers with a Parkway delivery obligation.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A Tab 4 Page 4 Table 1: Section 8.0

- a) Please show for 2014-2019 based on Table 1, the annual total and incremental cost increases/reductions costs and rate impacts on in-franchise customers broken out between Direct purchase and System sales.
  - b) Please indicate how many and what volume of customers are still using Union TCPL capacity (rather than vertical slice).
  - c) Please provide the total and net cost changes (PO-rates) for direct purchase customers providing deliveries at Parkway with Union-assigned TCPL Capacity.
  - d) Provide the corresponding impacts 2014-2019 on ex-franchise customers.
- 

**Response:**

- a) Please see the response at Exhibit B1.7. Please also see Attachment 1.
- b) TCPL capacity is also a component of the vertical slice. There are 406 contracts that include a component of Empress to Union CDA TCPL capacity with a total allocation of 19,228 GJ/day.
- c) Please see the response at Exhibit B1.7
- d) Please see Attachment 2.

UNION GAS LIMITED  
Summary of the Parkway Delivery Obligation Proposal Rate Adjustments  
Impacts on Sales Service and Direct Purchase Customers by Rate Class (1)

Line No.	Rate Class (\$000's)	January 2014			January 2015			January 2016		
		Total	Sales Service	Direct Purchase	Total	Sales Service	Direct Purchase	Total	Sales Service	Direct Purchase
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Rate M1	2,961	2,288	673	3,947	3,050	897	4,045	3,126	919
2	Rate M2	1,004	389	615	1,339	519	820	1,370	531	839
3	Rate M4	325	14	311	433	18	415	438	18	419
4	Rate M5	69	2	67	92	2	89	84	2	82
5	Rate M7	144	0	144	192	0	192	195	0	195
6	Rate M9	57	0	57	76	0	76	76	0	76
7	Rate M10	1	0	1	2	0	1	2	0	1
8	Rate T1	207	0	207	276	0	276	272	0	272
9	Rate T2	1,192	0	1,192	1,590	0	1,590	1,589	0	1,589
10	Rate T3	355	0	355	473	0	473	482	0	482
11	Total South In-franchise	6,316	2,693	3,623	8,419	3,590	4,829	8,554	3,678	4,876

Rate Class (\$000's)	January 2017			January 2018			January 2019			
	Total	Sales Service	Direct Purchase	Total	Sales Service	Direct Purchase	Total	Sales Service	Direct Purchase	
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	
12	Rate M1	4,145	3,203	942	4,757	3,676	1,081	7,450	5,757	1,693
13	Rate M2	1,403	544	859	1,605	622	983	2,514	974	1,539
14	Rate M4	444	19	426	493	21	472	774	32	742
15	Rate M5	80	2	78	64	2	63	107	3	104
16	Rate M7	199	0	199	222	0	222	349	0	349
17	Rate M9	77	0	77	84	0	84	132	0	132
18	Rate M10	2	0	1	2	1	2	3	1	3
19	Rate T1	272	0	272	282	0	282	447	0	447
20	Rate T2	1,605	0	1,605	1,734	0	1,734	2,740	0	2,740
21	Rate T3	491	0	491	551	0	551	865	0	865
22	Total South In-franchise	8,718	3,768	4,950	9,794	4,321	5,473	15,381	6,767	8,613

Note:

(1) Based on the 2013 Board-approved volume forecast by rate class.

UNION GAS LIMITED  
M12/M12-X/C1 Transportation Demand Charges including Parkway Delivery Obligation & M12 Demand Changes

Line No.	Services	EB-2011-0210 Rate Order (\$/GJ/day) (1)	Year 2015 Parkway Projects (\$/GJ/day) (2)	Year 2015 Parkway Projects including Parkway Delivery Obligation (\$/GJ/day) (3)	Year 2015 Comparison of Parkway Projects including Parkway Delivery Obligation and M12 Demand Changes	
					Difference (d) = (c - b)	% Change (e) = (d / b)
1	M12/C1 Dawn to Kirkwall	0.066	0.067	0.067	0.000	-0.1%
2	M12/C1 Dawn to Parkway	0.078	0.079	0.079	0.000	-0.1%
3	M12/C1 Kirkwall to Parkway	0.012	0.012	0.012	0.000	-0.1%
4	C1 Parkway to Kirkwall	0.019	0.019	0.019	0.000	-0.1%
5	C1 Kirkwall to Dawn	0.034	0.034	0.034	0.000	-0.1%
6	C1 Parkway to Dawn	0.019	0.019	0.019	0.000	-0.1%
7	M12-X	0.097	0.098	0.098	0.000	-0.1%

Notes:

(1) EB-2011-0210, Appendix A, Pages 14-16, column (c), effective January 1, 2013.

(2) Parkway Projects include Parkway West Project & Brantford to Kirkwall and Parkway D Compressor Project.

(3) 2015 Parkway Delivery Obligation and M12 Demand Decrease = 66 TJ.



UNION GAS LIMITED  
M12/M12-X/C1 Transportation Demand Charges including Parkway Delivery Obligation & M12 Demand Changes

Line No.	Services	EB-2011-0210 Rate Order (\$/GJ/day) (1)	Year 2016 Parkway Projects (\$/GJ/day) (2)	Year 2016 Parkway Projects including Parkway Delivery Obligation (\$/GJ/day) (3)	Year 2016 Comparison of Parkway Projects including Parkway Delivery Obligation and M12 Demand Changes	
					Difference (d) = (c - b)	% Change (e) = (d / b)
1	M12/C1 Dawn to Kirkwall	0.066	0.077	0.076	0.000	-0.1%
2	M12/C1 Dawn to Parkway	0.078	0.091	0.091	0.000	-0.1%
3	M12/C1 Kirkwall to Parkway	0.012	0.015	0.015	0.000	-0.1%
4	C1 Parkway to Kirkwall	0.019	0.023	0.023	0.000	-0.1%
5	C1 Kirkwall to Dawn	0.034	0.040	0.040	0.000	-0.1%
6	C1 Parkway to Dawn	0.019	0.023	0.023	0.000	-0.1%
7	M12-X	0.097	0.114	0.114	0.000	-0.1%

Notes:

(1) EB-2011-0210, Appendix A, Pages 14-16, column (c), effective January 1, 2013.

(2) Parkway Projects include Parkway West Project & Brantford to Kirkwall and Parkway D Compressor Project.

(3) 2016 Parkway Delivery Obligation and M12 Demand Decrease = 66 TJ.

UNION GAS LIMITED  
M12/M12-X/C1 Transportation Demand Charges including Parkway Delivery Obligation & M12 Demand Changes

Line No.	Services	EB-2011-0210 Rate Order (\$/GJ/day) (1)	Year 2017 Parkway Projects (\$/GJ/day) (2)	Year 2017 Parkway Projects including Parkway Delivery Obligation (\$/GJ/day) (3)	Year 2017 Comparison of Parkway Projects including Parkway Delivery Obligation and M12 Demand Changes	
					Difference (d) = (c - b)	% Change (e) = (d / b)
1	M12/C1 Dawn to Kirkwall	0.066	0.077	0.076	0.000	-0.2%
2	M12/C1 Dawn to Parkway	0.078	0.091	0.091	0.000	-0.2%
3	M12/C1 Kirkwall to Parkway	0.012	0.015	0.015	0.000	-0.2%
4	C1 Parkway to Kirkwall	0.019	0.023	0.023	0.000	-0.2%
5	C1 Kirkwall to Dawn	0.034	0.040	0.040	0.000	-0.2%
6	C1 Parkway to Dawn	0.019	0.023	0.023	0.000	-0.2%
7	M12-X	0.097	0.114	0.114	0.000	-0.2%

Notes:

(1) EB-2011-0210, Appendix A, Pages 14-16, column (c), effective January 1, 2013.

(2) Parkway Projects include Parkway West Project & Brantford to Kirkwall and Parkway D Compressor Project.

(3) 2017 Parkway Delivery Obligation and M12 Demand Decrease = 94 TJ.

UNION GAS LIMITED  
M12/M12-X/C1 Transportation Demand Charges including Parkway Delivery Obligation & M12 Demand Changes

Line No.	Services	EB-2011-0210 Rate Order (\$/GJ/day) (1)	Year 2018 Parkway Projects (\$/GJ/day) (2)	Year 2018 Parkway Projects including Parkway Delivery Obligation (\$/GJ/day) (3)	Year 2018 Comparison of Parkway Projects including Parkway Delivery Obligation and M12 Demand Changes	
					Difference (d) = (c - b)	% Change (e) = (d / b)
1	M12/C1 Dawn to Kirkwall	0.066	0.077	0.076	-0.001	-0.7%
2	M12/C1 Dawn to Parkway	0.078	0.091	0.090	-0.001	-0.7%
3	M12/C1 Kirkwall to Parkway	0.012	0.015	0.014	0.000	-0.8%
4	C1 Parkway to Kirkwall	0.019	0.023	0.023	0.000	-0.8%
5	C1 Kirkwall to Dawn	0.034	0.040	0.040	0.000	-0.8%
6	C1 Parkway to Dawn	0.019	0.023	0.023	0.000	-0.8%
7	M12-X	0.097	0.114	0.113	-0.001	-0.7%

Notes:

(1) EB-2011-0210, Appendix A, Pages 14-16, column (c), effective January 1, 2013.

(2) Parkway Projects include Parkway West Project & Brantford to Kirkwall and Parkway D Compressor Project.

(3) 2018 Parkway Delivery Obligation and M12 Demand Decrease = 212 TJ.

UNION GAS LIMITED  
M12/M12-X/C1 Transportation Demand Charges including Parkway Delivery Obligation & M12 Demand Changes

Line No.	Services	EB-2011-0210 Rate Order (\$/GJ/day) (1)	Year 2018 Parkway Projects (\$/GJ/day) (2)	Year 2018 Parkway Projects including 2019 Parkway Delivery Obligation (\$/GJ/day) (3)	Year 2019 Comparison of Parkway Projects including Parkway Delivery Obligation and M12 Demand Changes	
					Difference (d) = (c - b)	% Change (e) = (d / b)
1	M12/C1 Dawn to Kirkwall	0.066	0.077	0.076	-0.001	-1.2%
2	M12/C1 Dawn to Parkway	0.078	0.091	0.090	-0.001	-1.2%
3	M12/C1 Kirkwall to Parkway	0.012	0.015	0.014	0.000	-1.2%
4	C1 Parkway to Kirkwall	0.019	0.023	0.022	0.000	-1.2%
5	C1 Kirkwall to Dawn	0.034	0.040	0.040	0.000	-1.2%
6	C1 Parkway to Dawn	0.019	0.023	0.022	0.000	-1.2%
7	M12-X	0.097	0.114	0.113	-0.001	-1.2%

Notes:

(1) EB-2011-0210, Appendix A, Pages 14-16, column (c), effective January 1, 2013.

(2) Parkway Projects include Parkway West Project & Brantford to Kirkwall and Parkway D Compressor Project.

(3) 2019 Parkway Delivery Obligation and M12 Demand Decrease = 379 TJ.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Page 7

Preamble: Currently, Union's sales service customers deliver 98 TJ/d of supply at Parkway. Union's Parkway delivery obligation proposal does not include the transition of these quantities from Parkway. Should Union move all or a portion of the sales service Parkway delivery obligation to Dawn, the cost impacts will be treated the same as the costs to transition the direct purchase Parkway delivery obligation to Dawn.

- a) Please explain and provide an illustrative example for Sales customers in Rates M1 and M2
- b) Please explain how any such Transition is affected by the Sales volume commitments in the TCPL-Union EGD GMI Settlement.
- c) Please re-run the illustration taking the constraints on System/sales in the Agreement

---

**Response:**

- a) The costs associated with Union's Dawn-Parkway system are included in Union South in-franchise delivery rates. Union's proposal to reduce the Parkway obligated deliveries for direct purchase customers will increase the allocation of Dawn-Parkway costs to all Union South in-franchise customers. Accordingly, delivery rates will increase for sales service and direct purchase customers.

Should Union move all or a portion of the sales service Parkway delivery obligation to Dawn, the allocation of Dawn-Parkway costs to all Union South in-franchise customers would increase. Delivery rates for Union South in-franchise customers would also increase, consistent with the effect on delivery rates caused by a reduction in Parkway obligated deliveries by direct purchase customers.

Please see the response at Exhibit B1.7 for the delivery rate impacts for Rate M1 and Rate M2. The delivery rate impacts will apply to all sales service and direct purchase customers in each rate class.

- b) –c) Union's plans to transition the sales service Parkway delivery obligation to Dawn have already been incorporated into the forecast within the Settlement Agreement with TCPL.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Page 8

Preamble: As part of the RP-1999-0017 Settlement Agreement, Union and the Industrial Gas Users Association (“IGUA”) and one other intervenor supported the grandfathering of upstream pipeline capacity and receipt point allocations to existing direct purchase customers.

- a) Please provide an extract of the Settlement regarding Upstream Capacity and Parkway Obligation.
- b) If not included above, indicate which parties supported vertical slice and which opposed or took no position.

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**Response:**

- a) and b) Please see Attachment 1.

**RP-1999-0017**

**UNION GAS**

**SETTLEMENT AGREEMENT**

**June 7, 2000**

## **1.2 Upstream Transportation**

### **1.2.1 Southern Operations Area - Upstream Transportation Allocation**

### **1.2.2 Southern Operations Area - Allocation Terms and Conditions**

[No Settlement]

Union currently facilitates movement to direct purchase through an allocation/assignment of TransCanada PipeLines Limited ("TCPL") firm transportation (FT) capacity. This approach has been in place since direct purchase began and was last confirmed by the Board in its E.B.R.O. 493/494 Decision. The remaining amount of TCPL capacity has been declining and now represents a very small proportion of Union's remaining system portfolio. Effective November 1, 2000, Union is proposing to allocate/assign upstream transportation based on a "vertical slice" of Union's upstream transportation portfolio. The vertical slice will include all upstream transportation portfolio components including spot gas and will be updated to reflect Union's portfolio each November 1. This methodology will apply to all system customers electing either a bundled direct purchase or unbundled service as well as to the annual administration of Daily Contract Demand (DCQ) changes as of the unbundling start date. All existing direct purchase assignments/allocation (i.e. 100% TCPL FT and FST) will be grandfathered which leaves existing direct purchase customers responsible for TCPL capacity even if existing direct purchase customers elect the unbundled service. The initial allocation of capacity to all system customers electing either the bundled or unbundled service through the vertical slice will allow them to make their own upstream arrangements upon the expiry of the transportation contracts underlying the vertical slice.

The primary terms and conditions associated with upstream transportation assignments for the unbundled service in the Southern Operations Area are:

- Subject to the agreement on Issue 1.2.3, a 22-day commitment to deliver volumes at Parkway at Union's call (Parkway commitment equal to the capacity allocated/assigned to customers with a Parkway delivery point at the time a switch from system gas to direct purchase is facilitated and/or the weighted average Parkway portfolio percentage as adjusted annually to reflect changes in an REM's upstream transportation portfolio and to reflect customers moving between REM's).
- Customer required to take a mandatory assignment or allocation of Union's existing upstream contracts for the remaining terms of those contracts (ie. for the remaining customers on system gas supply and electing to move to a direct purchase option).
- One year perpetual evergreening agreements.

The one year evergreening assignments will automatically roll over every year except in those circumstances where one or more of the following conditions arise:

- (a) Mutual agreement between Union and the customer to terminate the assignment.
- (b) Customer decontracts TCPL capacity via Union's TCPL turnback policy.
- (c) Customer default.
- (d) Failure to provide appropriate credit.



- (e) Renegotiation of upstream contracts with terms and conditions acceptable to Union and the customer.
- (f) Changes resulting from future regulatory decisions.

When Union assigns/allocates upstream transportation contracts with no annual renewal provisions, the underlying term of the assignment/allocation will match the term of the underlying transportation contract(s) held by Union. Union will also permanently assign upstream transportation capacity to the extent requested by customers and provided the customer meets all financial and credit requirements of the upstream transporter.

Union will attempt to facilitate customer requests for a different mix of transportation capacity from that determined by the vertical slice by offering an upstream transportation clearinghouse. This service is optional and does not restrict the ability of parties to trade upstream transportation capacity in the secondary market.

Union will continue to operate under the existing TCPL turnback policy.

Union will enter the appropriate transportation queues and contract for long-term capacity on behalf of direct purchase customers at their request but may require the customer to make a longer term commitment in return.

### **Vertical Slice Details, Justification and Operation**

A projection of Union's remaining system supply portfolio as at November 1, 2000 is attached at Appendix A. Appendix A illustrates the various transportation components along with the average remaining term of the underlying contracts associated with each component.

Union noted that given the continued facilitation of direct purchases using TCPL FT only as directed by the Board in E.B.R.O. 493/494, Union has very little TCPL FT capacity remaining in its system portfolio. As noted in Appendix A, there is 24,000 GJ/day of remaining TCPL FT capacity which represents approximately 10% of Union's system portfolio. Further, direct purchase activity between May and November, 2000 is projected to utilize approximately 6,000 GJ/day of this capacity resulting in remaining TCPL FT capacity of approximately 18,000 GJ/day at November 1, 2000. At this level, Union would only be able to facilitate approximately 60,000 new residential direct purchase arrangements if it were to continue to facilitate new direct purchase using TCPL FT only.

Union further clarified that the vertical slice would be facilitated through a single one year assignment for each transportation component representing a consolidation of the underlying contracts and tolls. As such, customers would not have to manage numerous underlying contracts in connection with the allocation of a particular transportation component. The only exception to facilitating the vertical slice through a single one year assignment arises where a customer requests a permanent assignment of upstream capacity. In this case, Union would facilitate a permanent assignment of each transportation component and this would involve a vertical slice of underlying contracts and their respective terms.

Based on the projected portfolio as at November 1, 2000 (Appendix A), approximately 50% of the transportation components allocated through the vertical slice will expire within two years which will provide customers the flexibility to arrange for their own replacement supplies in the market at that time, subject only to any associated Parkway commitments.

### **Mandatory Versus Optional Allocation**

Union contends that its mandatory vertical slice proposal is grounded by the existing regulatory framework in Ontario where the regulated LDC's have made available upstream transportation capacity contracted by the LDC's in order to facilitate direct purchase. To date, the upstream transportation capacity made available (i.e. assigned/allocated) by Union to facilitate direct purchase has been TCPL FT and FST only. Union also noted that the existing TCPL turnback policy is founded on the principle of avoiding stranded costs by maintaining a direct purchase customer's obligation for the capacity and the underlying contract term of the TCPL FT and FST capacity currently supporting the existing direct purchase arrangements. The mandatory allocation approach maintains consistency between existing and new direct purchase customers (either bundled or unbundled) and avoids any unfavourable cost impacts on the remaining system supplied customers.

Attached as Appendix B is a point in time estimate of the potential stranded cost impact associated with Union's remaining system portfolio. This estimate represents the difference between the posted tolls and the estimated market value of each upstream contract for a one year period. The analysis on the remaining system portfolio as at November 1, 2000 highlighted the potential stranded costs that would occur if all existing customers opted for direct purchase without an obligation to use any of Union's existing upstream transportation capacity. Further, to the extent that existing direct purchase customers were not responsible for grandfathered upstream transportation and could escape responsibility by electing the unbundled service, the stranded cost impact increases further. Union also noted that this estimate was conservative in that it did not reflect the potential for further value erosion were Union obligated to liquidate a large volume of capacity at a particular point in time.

Lastly, Union emphasized that the current upstream transportation allocation methodology is used to determine the proportion of volumes (i.e. DCQ) required to be delivered to Parkway (either 365 days for bundled or 22 day call for unbundled) in order to maintain Union's existing system integrity and design. Specifically, the delivery point inherent in Union's upstream transportation capacity portfolio is the basis on which the existing Parkway commitment is determined.

The following parties agree with Union's proposal: CAC; CENGAS; Enbridge; LPMA; Schools; VECC; WGSPG.

**Alternative 1**

This alternative supports grandfathering which leaves existing direct purchase customers responsible for Union TCPL capacity assigned or allocated to them, even if they choose to take unbundled services. This alternative recognizes and accepts that existing system gas customers who choose to become direct purchasers should be precluded from acquiring upstream capacity to meet their needs in the secondary market (including the delivered gas market) as long as Union still holds any capacity in its upstream transportation portfolio which is capable of meeting their needs on a delivery point specific basis. This alternative recognizes that Union's TCPL contracts and some of its Exchanges, Panhandle and Trunkline contracts specify a Parkway delivery point. The Alliance/Vector contracts and some of the Panhandle, and Exchange contracts specify a Dawn delivery point. Under this alternative, if a new direct purchaser wishes to meet its requirements through gas delivered at Parkway, then it must select and take an assignment/allocation of Union's contracted capacity with a Parkway delivery point to meet its requirements. If a new direct purchaser wishes to satisfy its requirements through gas delivered at Dawn, then it must select and take an assignment/allocation of Union's contracted capacity with a Dawn delivery point to meet its requirements.

This alternative is thought to be consistent with the existing methodology which allows a new direct purchaser to obtain its entire upstream transportation requirements from a single upstream transportation source (currently TCPL) rather than a combination of upstream transportation sources. This approach is also consistent with Union's TCPL turnback policy which, in its effect, precludes customers from terminating their responsibility for a proportionate share of Union's TCPL capacity and acquiring capacity in the secondary market before Union's contract for such TCPL capacity ends. This alternative relies on the probability that Union will continue to require a part of its existing upstream transportation portfolio to serve system gas customers and as such ought to lead to an orderly allocation of upstream transportation without stranding costs by leaving Union holding unutilized capacity. If and when any prudently incurred costs of idle upstream transportation cannot be mitigated and, are stranded, then they should be brought forward for recovery from customers in a manner to be determined by the Board.

This alternative is considered by certain parties to be a preferred approach to the mandatory "vertical slice" of Union's upstream capacity to new direct purchasers who choose either bundled or unbundled service. A delivery commitment at Parkway should apply to existing system gas users who select a direct purchase option from Union facilitated through an assignment of upstream transportation capacity with a Parkway delivery point. No delivery commitment at Parkway should apply to those existing system gas users who select direct purchase option from Union facilitated through an assignment of upstream transportation capacity with a Dawn delivery point.

The following parties agree with this alternative: IGUA; Nova

**Alternative 2**

This alternative opposes any mandatory allocation of transportation capacity. Rather, this alternative proposes that allocations of upstream transportation capacity be made on a voluntary basis for both bundled and new unbundled direct purchase customers, so that REMs may choose to either accept Union's capacity or make their own transportation arrangements. This alternative is thought to be consistent with Union's proposed treatment of transportation when a customer moves from unbundled to bundled services. Specifically, under Union's proposal, "any return of upstream transportation capacity to Union in these circumstances would require mutual consent of both Union and the customer." (Exhibit B, Tab 1, p. 76). Union will not accept a return of capacity that has been specifically arranged by an REM. Union does not want to be exposed to the taking on of capacity for which it has not arranged. Under this alternative, it is thought that REMs should receive similar consideration and treatment.

This alternative supports the view that REMs should be entitled to arrange for the delivery of their customers' gas (ie. both existing bundled direct purchase and new unbundled direct purchase arrangements) at the appropriate delivery point using the mix of transportation, storage and spot gas that meets their customers' needs. System customers would then continue to be served by Union's transportation portfolio, which it will presumably be adjusted from time to time in light of its changing customer base, and in light of the need to avoid stranding transportation costs in the future. In this way, both Union and REMs would be in a position to serve their customers in a fair and efficient manner.

Union's rationale for a mandatory allocation is that, in the absence of a mandatory allocation, it faces stranded costs because Union "would be in a position of having excess pipeline capacity and would be exposed to unabsorbed demand charges given that the terms of Union's upstream transportation contracts do not allow Union to immediately remove itself (i.e. decontract) from these contracts." (Exhibit C3.8). When asked to quantify the losses which would result from this scenario, Union answered that "it is impossible to speculate." (*Ibid*). Union subsequently filed information on the potential stranded costs as outlined above in Appendix B.

It is true that Union may be left with excess transportation capacity which could potentially be a stranded cost. The issue according to this alternative is therefore to determine the best way to quantify and ultimately mitigate stranded costs resulting from unbundling upstream transportation.

This alternative supports the view that Union's mandatory allocation proposal downloads the system's capacity on REMs and requires the REMs to take on the cost of restructuring the system portfolio, thus imposing increased cost on the end users of both bundled and unbundled direct purchase services.

Further, this alternative is of the view that Union's proposal is misguided because it puts the burden of minimizing stranded costs on REMs and their customers by increasing the costs of moving to unbundled rates. A more appropriate regulatory treatment of stranded costs is not to increase the costs of migration from bundled services, but to have a process which clearly identifies stranded costs and ensures that they are equitably recovered from all customers. In order to appreciate the perspective supported by this alternative, it is considered necessary to more fully address the concept of stranded costs in the unbundling context.

Union does not provide a definition of stranded costs in its evidence. A definition of stranded costs was outlined in CEED's evidence at paragraph 43.

According to that definition, to identify costs as stranded, it is necessary to separately identify and quantify expenditures on utility assets which were invested prior to unbundling but which may not be recovered as a result of the introduction of unbundling.

Following the initial identification and quantification of stranded costs, the next step is to determine how these costs may be mitigated and from whom they should be recovered. The CEED evidence outlines the general criteria which have been applied by regulators with respect to the mitigation and recovery of stranded costs, i.e. "whether (1) they were prudently incurred to serve the public interest; (2) the Company has taken all reasonable steps to mitigate those costs; and (3) their recovery will result in an increase in rates." (at p.14)

In other words, identifying, quantifying, mitigating and recovering stranded costs are separate but equally important parts of the market design for unbundled services. This alternative takes the view that this is consistent with the approach taken by the Government and Legislature of Ontario in the electricity sector of the energy market.

Applying these principles in the context of transportation, Union's does not provide a method of identifying, quantifying, mitigating or recovering stranded costs, given its principle of "minimizing or avoiding stranded costs" as part of implementing unbundling. This alternative contends that Union avoids this by downloading the cost of restructuring its system transportation portfolio on REMs.

Under this alternative, the simplest way to quantify the potentially stranded transportation costs is for Union to determine the amount of excess capacity which is not voluntarily taken up by existing bundled direct purchase or new unbundled direct purchase customers and which Union therefore does not require. Union should then try to recover value for that capacity in the market. The difference between its transportation costs and the costs which it recovers through management of its assets in the market is the portion which may reasonably be considered to

have been "stranded". Union may then apply to have those costs recovered from all customers – both bundled and unbundled.

Thus, this alternative supports the view that the preferred approach towards stranded costs – i.e., the process of identifying, quantifying, mitigating and recovering stranded costs - encourages an efficient and fair method of minimizing them. Furthermore this alternative supports, Union being put on notice that the recovery of stranded transportation costs relates only to those costs incurred prior to unbundling. In the future, the costs of any transportation arrangements that Union takes on behalf of its bundled customers may only be recovered from bundled customers. In other words, if Union does not want to incur losses for stranded costs in the future, Union should commence restructuring its transportation/supply portfolio for bundled customers as soon as possible.

The following parties agree with this alternative: CEED

### **Administrative Amendments**

During the negotiations, Union agreed to modify its original proposal and establish a 300 GJ/day threshold for purposes of determining the applicability of the vertical slice. As indicated in its evidence, Union proposes to grandfather all existing direct purchase customers with their current 100% TCPL FT or FST upstream transportation allocation. The majority of direct purchase contracts are subject to a DCQ adjustment annually at the time of contract renewal based on the most recent 12 months of normalized consumption. In the situation where the DCQ increases by a small amount to reflect increased consumption, Union had proposed that the customer get a small increment of vertical slice capacity to add to their existing 100% TCPL FT or FST grandfathered capacity. Union is now proposing that the customer receive 100% TCPL FT or FST where this DCQ change is less than 300 GJ/day in order to simplify the administration for both customers and Union. Marketers with a number of direct purchase contracts (representing an aggregation of end use customers) would be administered in aggregate and the 300 GJ/day threshold would apply on an aggregate annual basis.

Union also agreed to take back capacity from an unbundled customer in the event that customers are returned to system. In this circumstance, the unbundled customer would have the choice of continuing to maintain the capacity assigned by Union or to return any remaining assigned capacity to Union. Union is committed to take back any Union capacity remaining under assignment and will at its sole discretion, take back capacity that was arranged for specifically by an REM. In the event the unbundled customer elected to return the capacity to Union, the customer would be required to return the capacity in proportion to the remaining capacity originally assigned by Union. For example, if a customer who originally received an allocation/assignment of 50% TCPL and 50% U.S. capacity and now has only the TCPL capacity remaining under assignment from Union, Union is committed to take back TCPL capacity from the customer in an amount equal to 50% of the DCQ associated with the customers returned to system.



With the exception of the administrative amendments outlined above, there is no agreement on this issue.

The following parties reserve their rights on this issue: the Alliance; AMO; Comsatec; Energy Probe; HVAC; MECAP; OAPPA; TCPL.

Evidence References (1.2.1):

1. B/T1/p12-13, Southern Operations Area Methodology and Related Proposals
2. B/T1/p13-15, Existing Upstream Transportation Allocation Methodology
3. B/T1/p15-18, Proposed Upstream Transportation Allocation Methodology
4. B/T1/p18-19, Upstream Transportation Capacity Details
5. B/T1/Appendix B, Vertical Slice Allocation Methodology
6. B/T1/Appendix C, Southern Operations Summary of Transportation Contracts
7. C1.10; C1.11; C1.12; C1.14; C5.4; C7.2; C9.1; C9.2; C9.3; C9.4; C9.5; C19.3; C19.4; C21.5; C21.6; C21.7; C21.10; C21.35; C21.36; C21.37; C21.38; C21.39; C21.40; C24.2; C24.3; C24.45; C26.8; C26.9; C34.3; C34.4; C34.5; C36.1
8. Exhibit D5, CEED's prefiled evidence, para. 37-47.
9. Exhibit D34, TCPL's prefiled evidence, pp 22 – 27.
10. Exhibit D21, IGUA's prefiled evidence, para. 3 – 12.

Evidence References (1.2.2):

1. B/T1/p19-21, Upstream Transportation Assignment Terms and Conditions
2. B/T1/p21-22, Transportation Clearinghouse
3. B/T1/p22-23, TCPL Turnback Policy
4. B/T1/Appendix D, TCPL Capacity Turn Back Issue and Policy - Letter to OEB dated April 5, 1999
5. C1.13; C1.15; C1.16; C5.5; C9.6; C21.2; C21.3; C21.4; C21.8; C21.9; C21.17; C21.18; C21.19; C21.20; C21.21; C21.22; C21.41; C21.42; C21.43; C21.70; C24.46; C24.47; C26.10; C34.6; C34.7; C34.8; C34.9; C34.10; C36.2
6. Exhibit D5, CEED's prefiled evidence, para. 37-47.
7. Exhibit D34, TCPL's prefiled evidence, pp 22 – 27.
8. Exhibit D21, IGUA's prefiled evidence, Tab 1, para. 3 – 12.

### 1.2.3 Southern Operations Area - Parkway Commitment / 22 Day Callback

[Complete Agreement]

Union's current system operation and design relies on the firm delivery of TCPL FT volumes at Parkway. Union's historical and continued reliance on these firm obligated Parkway volumes has resulted in Union's Dawn-Trafalgar system being smaller than it would have otherwise been. All ratepayers have benefited from this system design and the smaller size of the facilities. As customers have moved from system to bundled direct purchase, they have received a 100% allocation of TransCanada FT capacity with a Parkway delivery point.

Given the above, Union will continue to require that all bundled direct purchase customers holding upstream transportation capacity with a Parkway delivery point to deliver firm (365 days a year) supplies at Parkway on 100% of the volumes of the upstream transportation capacity with a Parkway delivery point allocated/assigned to customers at the time a switch from system gas to direct purchase is facilitated. Upstream transportation capacity allocations/assignments under the vertical slice approach and within individual direct purchase contracts will be blended together to reflect changes over time resulting in an obligated Parkway percentage. Specifically, as customers or REM's are allocated differing slices of upstream transportation capacity over time, the amount of capacity with a Parkway delivery point will differ. The Parkway obligation for these different upstream transportation "slices" will be combined and result in an overall obligated Parkway percentage. The obligated Parkway percentage will reflect a blend of grandfathered TCPL FT and FST along with new upstream transportation allocations resulting from the vertical slice. The Parkway delivery obligation for unbundled customers will be similarly based on the obligated Parkway percentage but the delivery obligation will be limited to the 22 day call at Parkway.

Under Union's existing TCPL turnback policy, customers are able to turn back their capacity on TransCanada to the extent that Union has the contractual ability to turn back the capacity to TransCanada. Customers, however, are still required to obligate the delivery of any replacement capacity at Parkway.

### **Delivery Point Flexibility**

In its supplemental evidence, Union provided an overview of options that could provide customers the flexibility to change their delivery point from Parkway to other delivery points on Union's system, subject only to Union's physical capability to receive such volumes. The options which would provide delivery point flexibility to both bundled and unbundled customers include:

- (a) Build additional Dawn-Trafalgar facilities
- (b) Acquire Dawn-Trafalgar capacity from existing M12 customers
- (c) Change contractual arrangements between TransCanada and Union.

It is noted that the issue of delivery point flexibility, while arising through the development of the unbundled services, is not purely an unbundling issue. Specifically, all customers (both existing bundled and prospective unbundled customers) were seeking greater delivery point flexibility.

Union indicated that it is willing to pursue the options of constructing facilities to provide greater system wide delivery point flexibility if there is consensus agreement that the cost of providing this greater flexibility will be recovered from customers

Union provided the cost of building additional Dawn-Trafalgar capacity (and the associated compression at Dawn and Parkway). Union indicated that it could provide delivery point flexibility in annual increments of 10% and up to a total of 40% of the existing Parkway deliveries starting November 1, 2001 and provided the allocation of the cost by rate class on a system-wide basis assuming that all in-franchise customers (system, bundled, and unbundled)



paid for this additional flexibility. Union indicated that M12 capacity turnback (i.e. Option (b)) did not appear to be a viable option as responses to letters Union sent to M12 customers requesting them to examine their Dawn-Trafalgar capacity requirements indicated that they were unable to commit to turn back any M12 capacity to Union. In addition, Union indicated it had several discussions with TransCanada with respect to Option (c) and that a response from TransCanada was still forthcoming.

### **20% System Wide Solution**

Prior to the settlement negotiations, Union and TCPL negotiated an agreement providing for an unconditional temporary assignment by TCPL to Union, of 150 mmcf of M12 Dawn to Parkway capacity for a 3 year term. Union made this unconditional 3 year commitment to the 150 mmcf of capacity in order to be in a position to facilitate delivery point flexibility for Union's in-franchise customers effective November 1, 2000. This 3 year agreement is renewable by mutual agreement of Union and TCPL. Further, the Union/TCPL agreement provides the ability for Union and TCPL to negotiate, prior to November 1, 2000, for an additional assignment of M12 capacity by TCPL to Union of up to 200 mmcf. This additional capacity could be used to facilitate additional delivery point flexibility in excess of that provided by the 150 mmcf. Subsequent to November 1, 2000, Union and TCPL have agreed to negotiate any additional temporary M12 capacity assignments on a best efforts basis.

The parties agree that the 150 mmcf of M12 Dawn-Parkway capacity be used to facilitate system wide delivery point flexibility for all in-franchise customers. Further, the parties agree that the costs associated with the 3 year temporary M12 Dawn to Parkway assignment (ie. forgone M12 revenue) be allocated amongst all in-franchise customers based on Union's 1999 Board approved Dawn-Trafalgar design day demand and as outlined at Appendix C. The parties agree that the recovery of these costs which will start to be incurred November 1, 2000, by rate class, meets the definition of a non-routine adjustment and that rates will be adjusted to recover these amounts separate and apart from any rate adjustments arising from the Board's decision on Union's PBR proposal.

The 150 mmcf temporary M12 assignment represents approximately 20% of the existing volumes currently committed to and delivered at Parkway. As such, customers will have delivery point flexibility equal to 20% of their existing Parkway obligated volumes effective November 1, 2000.

The agreement between Union and TCPL giving rise to the ability to facilitate a system wide delivery point flexibility dated May 10, 2000 is attached at Appendix D.

### **Delivery Point Flexibility in Excess of the 20% System Wide Solution**

For those customers seeking delivery point flexibility in excess of the 20% provided by the system wide solution, Union agrees to facilitate individual customer requests for additional flexibility. To the extent that there are individual customer demands for flexibility in excess of the 20% system wide solution, Union will negotiate with TCPL under the terms of the agreement outlined above. The parties acknowledge that any additional temporary M12 assignment

capacity from TCPL to Union will provide delivery point flexibility for both bundled and unbundled customers. The parties also acknowledge and agree that Union's facilitation of additional M12 (temporary) assigned capacity from TCPL to provide flexibility in excess of the base 20% system wide solution will require a separate agreement between Union and the customer outlining the customer's commitment to pay for the associated costs. The costs of any additional M12 assigned capacity from TCPL to Union will represent forgone M12 revenue at the M12 rate which is currently approved at approximately \$0.086/GJ.

The process agreed to by Union to facilitate individual customer requests for delivery point flexibility in excess of the 20% system wide solution will require Union to establish a queue to determine individual customer interest for greater delivery point flexibility, the amount of capacity required, and the associated term. Union will consolidate the information received via the queue process and use this as the basis for which to negotiate any additional temporary assignment of M12 capacity from TCPL to Union. Subject to the Board's review and consideration of this Agreement, it is Union's intent to initiate this queue process in June 2000.

Union also agreed to facilitate the queue mechanism outlined above for years subsequent to 2000. As noted above, Union and TCPL have committed to negotiate, on a best efforts basis, for an additional temporary assignment of M12 capacity subsequent to November 1, 2000. In addition, Union committed to facilitate user specific requests for additional delivery point flexibility in a manner that in no way tied or linked the greater delivery point flexibility to other contractual/service commitments. Specifically, customers are free to pursue their own upstream transportation arrangements with other third parties.

The parties recognize that marketers / aggregators have the ability to tender for market based alternatives to replace the 22 day Parkway call associated with the unbundled service. Union commits that it will support and facilitate any such market based alternatives as arranged for by marketers / aggregators.

### **Future Reversion to Parkway**

Union agreed to consult annually with parties on whether there is a consensus to support Union seeking either an extension of the 150 mmcf three year temporary M12 assignment as described above between Union and TCPL or an increase in the level of capacity supporting a system wide solution. To the extent that there is an agreement amongst all parties to extend the existing three year term associated with the temporary M12 assignment or to expand the level of capacity supporting a system wide solution, Union will seek to negotiate such arrangements with TCPL. The parties acknowledge that any extension of the existing 3 year temporary M12 assignment or any agreement to expand the level of capacity supporting a system wide solution must be agreed to mutually by Union and TCPL and paid for by customers.

To the extent that there is no consensus agreement amongst the parties to either renew the 150 mmcf three year M12 temporary assignment or to expand the level of capacity supporting a system wide solution above the 20% level, any party may file an application with the Board to advance specific proposals.

To the extent that the 3 year temporary M12 assignment is not renewed, Union will adjust delivery rates to reflect the removal from all rate classes of the non-routine adjustment relating to delivery point flexibility costs at the end of the 3 year term.

The parties acknowledge that solutions to provide delivery point flexibility such as the 150 mmcf three year temporary assignment of M12 capacity from TCPL are temporary solutions. It is acknowledged that the permanent solutions to the existing Parkway obligation would involve a permanent release of M12 capacity and/or the construction, by Union, of additional Dawn-Trafalgar facilities. The parties were not supportive of Union proceeding to construct additional Dawn-Trafalgar facilities at this time to provide a more permanent solution to the existing Parkway obligation for all customers. However, individual customers are able to contract for new long term M12 capacity which would provide those customers with a more permanent solution.

The parties acknowledge that absent any extension of the 150 mmcf 3 year temporary M12 assignment, customers will be required to obligate the delivery of 20% of their Parkway DCQ back to Parkway at the end of the 3 year term.

The following parties agree with the settlement of this issue as outlined above: AMO; CAC; CEED; CENGAS; Comsatec; Enbridge; Energy Probe; IGUA; Kitchener; LPMA; MECAP; Nova; OAPPA; OESC; Schools; TCPL; VECC; WGSPG.

The following parties take no position on this issue: the Alliance; John Fullerton; HVAC.

#### Evidence References:

1. B/T1/p23-25, Current System Design and Allocation of Benefits Associated with East End (Parkway) Deliveries
2. B/T1/p30-36, Parkway Commitment
3. B/T1/p36-37, Options to Reduce Parkway Commitment and Increase Shipper Flexibility
4. B/T1/Supplemental, Parkway Commitment – Evidence Update
5. C1.17-26; C1.185-193; C3.5; C3.85-88; C5.6; C5.9; C5.10; C7.3-5; C9.7-9; C11.21-23; C11.25; C11.26; C11.29; C11.31; C11.32; C19.5; C19.6; C19.49-52; C21.1-2; C21.11-16; C21.23-34; C21.44-51; C21.162-167; C24.4-6; C24.48-50; C24.53-65; C26.11; C34.11-17; C34.38-45; C36.3-5; C36.38-40
6. Exhibit D5, CEED's prefiled evidence, para. 62-69.
7. Exhibit D21, IGUA's prefiled evidence, Tab 1, para. 13 – 42; Tab 2.

### 1.2.4 Southern Operations Area - DCC Elimination

[Complete Settlement]

Union currently pays a Delivery Commitment Credit (DCC) to all bundled direct purchase customers managing their transportation capacity and obligating to deliver in accordance with the terms and conditions of the delivery service. The terms and conditions of all existing direct

purchase arrangements contain a contractual obligation to deliver which provides Union with the ability to continue to rely on these volumes from a system design and integrity perspective and provides Union with the ability to authorize in advance all upstream transportation capacity assignments/diversions rendering the DCC unnecessary.

Union's evidence outlined the proposal to eliminate the DCC effective January 1, 2001. The DCC will be eliminated in a manner which is revenue neutral to all end-use customers. During the negotiations, Union agreed to defer the elimination of the DCC to be effective April 1, 2001 in order to align with the projected unbundling implementation date.

The following parties agree with the settlement of this issue as outlined above: AMO; CAC; CEED; CENGAS; Comsatec; Energy Probe; IGUA; Kitchener; LPMA; MECAP; Nova; Schools; TCPL; VECC; WGSPG.

The following parties take no position on the issue: the Alliance; Enbridge; John Fullerton; HVAC; OAPPA; OESC.

#### Evidence References:

1. B/T1/p26-27, Delivery Commitment Credit ("DCC")
2. B/T1/p27-30, Delivery Commitment Credit Elimination and Related Rate Adjustments
3. C1.27-31; C5.7-8; C7.67; C11.28; C11.30; C21.55; C24.17; C24.40-44; C26.12; C34.18-20
4. Exhibit D5, CEED's prefiled evidence, para 62-69.

### **1.2.5 Northern & Eastern Operations Area - Upstream Transportation Allocation**

### **1.2.6 Northern & Eastern Operations Area - Allocation Terms and Conditions**

[No Settlement]

The assets used to serve the Northern and Eastern Operations Area are currently managed in an integrated manner to serve all of the delivery areas. These assets include upstream transportation capacity on TCPL, Storage Transportation Service (STS), STS pooling rights, storage (at Dawn and LNG), Dawn-Parkway capacity and other third party services.

The methodology used to allocate the assets in the Northern and Eastern Operations Area is based on the current mix and operation of assets. These assets are allocated in a manner which addresses upstream transportation capacity as the first step followed by delivery/redelivery service capacity and storage respectively.

Further details regarding the allocation of delivery/redelivery service and storage are provided at issues 1.2.7 and 1.3.3, respectively.

Union proposes that existing t-service customers be grandfathered and continue to receive an allocation of TCPL FT capacity. Union proposes that new direct purchase customers receive an

allocation of upstream transportation capacity (ie. t-service and unbundled service) in the Northern and Eastern Operations Area in a manner consistent with the proposal for the Southern Operations Area as outlined at Issue 1.2. However, applying the vertical slice to the current Northern and Eastern Operations Area system gas portfolio would result in an allocation containing a very small percentage of non-TCPL capacity since Union's system gas portfolio is currently comprised of 97% TCPL firm transport from Empress and 3% other. For this reason, Union is proposing a mandatory assignment of 100% TCPL capacity for customers electing the unbundled service offering to the extent that the overall level of TCPL FT capacity in the system gas portfolio is greater than 60%. Should the TCPL FT capacity percentage within the system gas portfolio fall below 60%, the upstream transportation allocation will be based on a vertical slice as described for the Southern Operations area or whatever approach is ultimately in place in the Southern Operations Area. Bundled direct purchase would continue to be facilitated as it is currently and will continue to represent an Alberta supply arrangement with no specific allocation or assignment of upstream transportation capacity.

The primary terms and conditions associated with upstream transportation assignments for the unbundled service are:

- Customers required to take a mandatory assignment or allocation of Union's existing upstream assets
- Assignment cancelable only by mutual agreement (i.e. One year perpetual evergreening agreements)

When Union assigns/allocates an asset with no renewal provisions, the term of the assignment/allocation will match the term of the underlying contract held by Union.

The STS contracts and associated STS pooling rights are contractual rights that Union has with TCPL based on Union's underlying portfolio of FT capacity contracted with TCPL. These pooling rights contribute to Union's ability to provide firm service to customers. If Union were to permanently assign the FT capacity it has contracted with TCPL, it may reduce Union's STS pooling rights. As such, Union will not be in a position to permanently assign upstream transportation capacity in the Northern & Eastern Operations area.

Union will continue to operate under the existing TCPL turnback policy. Parties acknowledge and recognize that Union will be unable to reduce its existing TCPL contractual obligations until November 1, 2003. However, Comsatec is of the view that current t-service customers operating with an assignment of Union's TCPL FT capacity (referred to as a Temporary FT Assignment) should not be subject to Union's mandatory allocation proposal and should be allowed to turn back the capacity to Union. Comsatec is of the view that this approach should be effective October 31, 2000 upon the expiry of existing t-service contracts.

The positions of the remaining parties are consistent with those outlined under Issue 1.2.1/1.2.2

There is no agreement on this issue.

Evidence References: (1.2.5)

1. B/T1/p38-40, Overview of Northern and Eastern Operations Area
2. B/T1/p40, Existing Approach to Facilitating Direct Purchase in the Northern and Eastern Operations Area
3. B/T1/p40-45, Asset Allocation Details and Assignment Terms and Conditions
4. C1.32; C1.33; C5.11; C21.56-60; C21.63-65; C36.6
5. Exhibit D21, IGUA's prefiled evidence, Tab 1, para. 43 – 53.
6. Exhibit D5, CEED's prefiled evidence, para. 37 – 47.
7. Exhibit D34, TCPL's prefiled evidence, pp. 22 – 27.

Evidence References: (1.2.6)

1. B/T1/p40-45, Asset Allocation Details and Assignment Terms and Conditions
2. B/T1/p50-51, Transportation Capacity Details
3. C1.34; C1.35; C13.4-6; C21.61-62; C21.66-68
4. Exhibit D21, IGUA's prefiled evidence, Tab 1, para. 43 – 53.
5. Exhibit D5, CEED's prefiled evidence, para. 37 – 47.
6. Exhibit D34, TCPL's prefiled evidence, pp. 22 – 27.

### **1.2.7 Northern & Eastern Operations Area - Delivery / Redelivery Services**

[Complete Settlement]

The delivery/redelivery is a semi-bundled service that uses STS service and the associated STS pooling rights, Dawn-Trafalgar capacity, and exchanges. The delivery/redelivery service is a mandatory firm service associated with the unbundled service which provides customers the ability to nominate the “delivery” of gas from a particular delivery area to Dawn storage during the summer, and to nominate the “redelivery” of gas from Dawn storage to the customer's delivery area during the winter.

Union is unable to unbundle the individual services that comprise the delivery/redelivery service due to both contractual and operational limitations. Further, given the inability to unbundle the individual services, Union proposes to manage all of the services comprising the delivery/redelivery service under the PBR proposal. In addition, Union's proposed delivery/redelivery service preserves the existing operational and cost efficiencies in the Northern and Eastern Operations Area.

The following parties agree that Union's evidence on this subject should be accepted: AMO; CAC; CENGAS; Comsatec; Energy Probe; IGUA; MECAP; OESC; Schools; VECC.

The following parties take no position on this issue: the Alliance; CEED; Enbridge; John Fullerton; HVAC; Kitchener; LPMA; Nova; OAPPA; TCPL; WGSPG.

Evidence References:



1. B/T1/p45-50, Delivery/Redelivery Service
2. B/T1/p50-51, Transportation Capacity Details
3. C1.36; C1.48; C36.7

### **1.2.8 Northern & Eastern Operations Area - Unbundling Costs – Threshold Level**

[Complete Settlement]

Union is proposing to manage the risks associated with allocating assets to meet incremental t-service and unbundling requests in the Northern & Eastern Operations area using the asset allocation methodology as outlined in the evidence at Exhibit B1, Tab 1, pp 43-47. Specifically, Union will manage the risks associated with an incremental 30% of combined new t-service and unbundled service demand (representing approximately 830 10\*6 m\*3 of annual demand) subsequent to November 1, 2000.

In the event that the 30% threshold level as described above was reached, this could trigger a review by Union or other parties to assess the experience and impact of new incremental t-service and unbundled service demand on costs and the operations in the Northern and Eastern Operations area.

The following parties agree with the settlement: AMO; CAC; CENGAS; Comsatec; IGUA; MECAP; OESC.

The following parties take no position on this issue: the Alliance; CEED; Enbridge; Energy Probe; John Fullerton; HVAC; Kitchener, LPMA; Nova; OAPPA; Schools; TCPL; VECC; WGSPG.

Evidence References:

1. B/T1/p51-53, Northern and Eastern Market Area – Implications for Bundled Services
2. C1.37-41; C21.69; C34.21

## **1.3 Storage**

### **1.3.1 Standard Storage Service**

### **1.3.2 Standard Peaking Service**

[Complete Settlement]

The physical operating characteristics of Union's storage facilities have been incorporated into the design of the unbundled storage service. Union's "base" pools which provide a base level of

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Pages 15-16

Please provide current and estimated 2014-2019 M12 volumes, taking into account requested EGD and Gaz Metro incremental volumes.

---

**Response:**

Please see the response at Exhibit B11.1.



UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Pages 17-18; IGUA Presentation

- a) Please explain why Option 2 -proportionally allocating deliveries between Dawn and Parkway, is unfair to either direct purchase and system customers.
- b) Explain how Union's proposal, differs from Option1 (repurpose M12 capacity).
- c) Please explain how Union's proposal favours direct purchase customers, specifically those represented by IGUA, in terms of costs and rate impacts rather than Option 2 and explain why it is equitable to all customers.
- d) Please provide support for the statement "Union understands that direct purchase customers prefer a simple gas supply portfolio and prefer not to deliver gas at multiple points."
- e) Please indicate how many DP customers deliver gas at multiple points and provide estimated volumes by delivery point.
- f) Please explain how Union's proposal remedies the fact that:

"The obligation as among direct purchase customers is also unequally distributed:

- All new DP volumes consumed west of Dawn may be delivered to Dawn.
- All new DP volumes consumed east of Dawn must be delivered to Parkway.
- Existing customers who became DP customers prior to vertical slice are obligated to deliver to Parkway." [from IGUA's presentation]

---

**Response:**

- a) Please see the response at Exhibit B8.3.
- b) Similar to Option 1, as described at Exhibit A, Tab 4, pp. 15-16, Union's proposal is to repurpose M12 turnback. Please see the response at Exhibit B3.5 for the proposal changes from the September 4, 2013 POWG presentation, based on feedback received.
- c) Please see the response at Exhibit B1.8.
- d) Union's understanding is based on comments received from direct purchase customers who were responding to the option to re-allocate Parkway and Dawn delivery obligations on a pro-

rated basis to all customers. When presented with this option of having their delivery obligations changed, direct purchase customers shared with Union a preference to keep their supply obligations as simple as possible and direct purchase customers expressed a strong preference for one obligated delivery point at Dawn.

- e) Please see the response at Exhibit B7.4 Attachment 1.
- f) Union's proposal has the Parkway delivery obligation for all direct purchase customers transitioning to Dawn over time.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Page 20

- a) Provide an equivalent list to that shown for direct purchase customers, showing the attributes that Union's proposal provides for in-franchise system sales customers.
- b) Comment on the attributes that Option 2 (or similar reallocation) would provide to System/Sales customers.

---

**Response:**

- a) Please see the response at Exhibit B1.9.
- b) Please see the response at Exhibit B8.3.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Page 22-23

Preamble: Based on current forecasts, Union proposes to use 146 TJ/d of Dawn-Parkway capacity from April 1, 2014 to October 31, 2015 by reserving temporarily available capacity that could otherwise be sold in the S&T markets as short-term transportation revenue during Union's incentive regulation period. The cost associated with this capacity at 2014 proposed M12 tolls plus fuel is approximately \$6.1 million.

- a) Please indicate how the net incremental S&T revenue would be recorded and allocated to rate classes.
- b) If possible, indicate how much would be allocated to direct purchase and System/Sales customers.

---

**Response:**

- a) The \$6.1 million cost associated with the temporarily available M12 capacity that could otherwise be sold in the S&T markets will not be recorded as incremental S&T revenue. This cost will be allocated to Union South in-franchise customers, recovered in delivery rates and recorded as distribution revenue.
- b) Please see Attachment 1.

UNION GAS LIMITED  
Cost Allocation by Rate Class Associated with Temporarily Available Capacity Costs  
Impacts on Sales Service and Direct Purchase (1)

Line No.	Rate Class (\$000's)	January 2014			January 2015			January 2016		
		Total	Sales Service	Direct Purchase	Total	Sales Service	Direct Purchase	Total	Sales Service	Direct Purchase
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	Rate M1	0	0	0	2,799	2,163	636	2,799	2,163	636
2	Rate M2	0	0	0	952	369	583	952	369	583
3	Rate M4	0	0	0	315	13	302	315	13	302
4	Rate M5	0	0	0	77	2	75	77	2	75
5	Rate M7	0	0	0	139	0	139	139	0	139
6	Rate M9	0	0	0	56	0	56	56	0	56
7	Rate M10	0	0	0	1	0	1	1	0	1
8	Rate T1	0	0	0	209	0	209	209	0	209
9	Rate T2	0	0	0	1,175	0	1,175	1,175	0	1,175
10	Rate T3	0	0	0	341	0	341	341	0	341
11	Total South In-franchise	0	0	0	6,064	2,547	3,517	6,064	2,547	3,517

Line No.	Rate Class (\$000's)	January 2017			January 2018			January 2019		
		Total	Sales Service	Direct Purchase	Total	Sales Service	Direct Purchase	Total	Sales Service	Direct Purchase
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
12	Rate M1	2,262	1,748	514	0	0	0	0	0	0
13	Rate M2	769	298	471	0	0	0	0	0	0
14	Rate M4	254	11	244	0	0	0	0	0	0
15	Rate M5	62	2	61	0	0	0	0	0	0
16	Rate M7	112	0	112	0	0	0	0	0	0
17	Rate M9	45	0	45	0	0	0	0	0	0
18	Rate M10	1	0	1	0	0	0	0	0	0
19	Rate T1	169	0	169	0	0	0	0	0	0
20	Rate T2	950	0	950	0	0	0	0	0	0
21	Rate T3	276	0	276	0	0	0	0	0	0
22	Total South In-franchise	4,901	2,059	2,843	0	0	0	0	0	0

Notes

(1) Based on 2013 Board-approved volume forecast by rate class.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Page 25 and Page 32, Figure 1

Preamble: Any delay in the forecasted Dawn-Kirkwall capacity turnback in excess of 146 TJ/d will result in a corresponding delay in the transition of the Parkway delivery obligation beyond 2018.

- a) Please provide more detail of what Union will do if the proposed DP in-franchise M12 capacity (voluntary) does not happen.
  - b) If in-franchise DP customers decide to hold or sell their M12 capacity what will happen to their Parkway Obligation transition?
  - c) Is Union making a firm commitment to IGUA and DP customers on the initial 2014 36.1% Parkway Obligation reduction, or is this contingent on certain events (e.g. turnback)?
  - d) If the latter, please indicate the contingent events and potential impact on the transition.
- 

**Response:**

- a) Direct purchase customers with M12 capacity will have the option to turnback their M12 contracts at the same time and in the same proportion as the other direct purchase customers can shift their obligation from Parkway to Dawn (eg. 36.1% as of the implementation date in 2014). If the in-franchise M12 contract holder elects not to turnback their M12 capacity, they will continue to pay the M12 costs and will continue to have the associated Parkway delivery obligation in their direct purchase contract.
- b) If in-franchise DP customers decide to hold or assign their M12 capacity, the customer will be unable to reduce the associated Parkway delivery obligation in their direct purchase contract. The customer will maintain their Parkway delivery obligation.
- c) Yes, Union's proposal is for an initial reduction in Parkway delivery obligation of 146 TJ/d overall (38%). The 146 TJ/d of capacity is currently excess Dawn to Parkway capacity and is therefore not dependant on turnback. As per Union's proposal, the first 13,735 GJ/d would implement a 100% reduction for 294 contracts that are each less than 100 GJ/d. The remaining capacity would be used to implement a 36.1% reduction for all other direct purchase customers as early as April 1, 2014.
- d) Please see the response to part c).

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Page 28

Preamble: Should Union move all or a portion of the Sales Service Parkway delivery obligation to Dawn, the cost impacts will be treated the same as the costs to transition the direct purchase Parkway delivery obligation to Dawn.

- a) Please comment on the factors affecting Union's decision to move system/sales volumes away from Dawn to other delivery points such as Kirkwall and Parkway.
- b) Please provide more detail and illustrative scenario(s) of the effect of adjusting System/Sales Portfolio deliveries during the transition period.

---

**Response:**

- a) Please see the response at Exhibit B1.9
- b) Please see the response at Exhibit B2.12.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Page 34 and Page 45

Preamble: Union proposes to track the rate variances associated with the timing differences between the effective dates (e.g. April 1 or November 1) of the Parkway delivery obligation changes each year and the inclusion of the cost allocation impacts in rates (January 1 of the following year) in a new deferral account. The balance in the new deferral account will be disposed of as part of Union's annual deferral account disposition proceeding.

- a) Please confirm the DA was not discussed at the POWG.
- b) Confirm the DA was not either part of the 2013-0202 IRM Settlement, nor listed in the 2014 DAs in this Application.
- c) Please provide more details (than provided on Page 45) of the proposed DA-- exactly how it will work with illustrative examples. Specifically effects on rates M1 and M2.
- d) Please explain why a Deferral Account is required rather than "best efforts" commitment to a certain PO volume reduction each year?
- e) If there is a commitment and M12 in-franchise DP customers do not provide turnback, explain why System/ Sales customers should be faced with the costs.

---

**Response:**

- a) Not confirmed. The deferral account to capture unrecovered costs as a result of timing differences was discussed at the September 4, 2013 POWG meeting as per evidence Tab 4, Appendix F, Slide 5.
- b) Confirmed. The EB-2013-0202 IRM Settlement was filed on July 31, 2013 and did not include Union's Parkway delivery obligation proposal.
- c) Please see the response at Exhibit B1.7, Attachment 2 for the detailed calculation of the proposed deferral account by rate class.
- d) As described at Exhibit A, Tab 4, p.44 Union is requesting a new deferral account to record the rate variances associated with the timing differences between the effective dates (April 1 or November 1) of its proposal and the inclusion of the cost allocation impacts in rates (January 1 of the following year). For 2014, Union is proposing to refund/recover the cost



allocation impacts of its Parkway delivery obligation proposal solely through the requested deferral account. Please see the response at Exhibit B1.7 for the 2014 cost allocation impacts of Union's proposal.

e) Please see the responses at Exhibit B1.8 and Exhibit B4.21.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Schedules 23 d, Appendix B, Attachment 4, Rate Impact Schedules and Schedule 29 Parkway Obligation, Final Schedules for PO Evidence 2019 Oct 31

- a) Please confirm which are the final schedules and rate impacts.
- b) Why does the second reference not show 2014 estimates?
- c) Please show and explain the material differences between the first and second reference for each comparable schedule.
- d) What implementation date is assumed for the Parkway Projects (EB-2012-0433 and EB-2013-0074)?
- e) If this implementation date is delayed by one year what is the impact on the annual Revenue Requirement?

---

**Response:**

- a) The final schedules and rate impacts associated with Union's Parkway delivery obligation proposal can be found at Exhibit A, Tab 4, Schedules.
- b) The schedules found at Exhibit A, Tab 4, do not include 2014 estimates because Union is not proposing to include the cost allocation impacts of its Parkway delivery obligation proposal in rates until January 1, 2015. Please see response at Exhibit B4.23 d).
- c) The schedules found at Exhibit A, Tab 4, Appendix B show the cost allocation impacts and rate impacts of two scenarios discussed during the POWG meetings.

Scenario 1 schedules show the cost allocation and rate impacts of a scenario where there are no Parkway obligated deliveries, no adjustment to M12 design day demands and no incremental facilities. The cost allocation and rate impacts were based on the July 13, 2012 (EB-2011-0210 Settlement Agreement) version of the 2013 cost allocation study.

Scenario 2 schedules show the cost allocation and rate impacts of a scenario where there are no Parkway obligated deliveries, a 300,000 GJ/d reduction in M12 design day demands and \$265 million in capital for new facilities with an estimated revenue requirement of \$32.5 million. The cost allocation and rate impacts were based on the July 13, 2012 (EB-2011-0210 Settlement Agreement) version of the 2013 cost allocation study.

Scenario 1 and Scenario 2 schedules do not reflect Union's Parkway delivery obligation proposal.

The schedules found at Exhibit A, Tab 4, Schedules show the cost allocation and rate impacts associated with Union's Parkway delivery obligation proposal from 2015 to 2018. The cost allocation and rate impacts are based on Union's 2013 Board-approved cost allocation study and include the annual revenue requirements for Union's Parkway West (EB-2012-0433) and Brantford to Kirkwall and Parkway Compressor D (EB-2013-0074) projects.

- d) The Parkway West project (EB-2012-0433) consists of a loss of critical unit compressor (Parkway C) as well as other facilities including upgrades to existing Union transmission lines and the Enbridge Measurement station. The planned in-service date of the loss of critical unit compressor is November 1, 2015. The Enbridge Measurement and Control station is planned to be in-service in November of 2014 (EB-2012-0433 evidence p.97, paragraph 7) and as a result costs were built into rates starting in 2014.

The Brantford-Kirkwall/Parkway D project (EB-2013-0074) is comprised of a new NPS 48 pipeline from the existing Brantford Valve Site to the Kirkwall Custody Transfer station and associated valve facilities and the Parkway D Compressor and associated facilities to be located at the Parkway West Compressor Station. The in-service date for both of these facilities is the fall of 2015.

- e) Union expects the Parkway projects to be in service as described in part d) above. Given this assumption, and the level of effort involved in recalculating the annual revenue requirements for the Parkway Projects and the multiple cost allocation studies required to determine the impacts on Union's Parkway delivery obligation proposal, Union has not provided the requested information.

UNION GAS LIMITED

Answer to Interrogatory from  
Energy Probe

Reference: Exhibit A, Tab 4, Schedule 29, Parkway Obligation, Final Schedules for PO  
Evidence 2019, Oct 31

- a) Please explain the net reductions in PO of 66 Tj/d, 94Tj/d, 212 Tj/d and 379 Tj/d shown in Schedules 1-5 and reconcile this to Exhibit A Tab 4 Page 4 Table 1.
  - b) Please provide a summary schedule showing from 2014-2019 the impact of PO on the annual revenue requirement allocated to each rate class.
  - c) Please show the cumulative rate impact 2014-2019 in % for each rate class.
  - d) Discuss by class, impacts that exceed 5% increases in delivery rates.
  - e) Compare this impact to the increases under the IRM that will also occur 2014-2019.
- 

**Response:**

- a) The quantities shown in Table 1 represent the changes to the Parkway delivery obligation for each year including the Temporary/Shortfall Capacity of 146 TJ/d. The quantities shown in Tab 4, Schedules 1 – 5 represent the cumulative change in the Parkway obligation for each year excluding the Temporary/Shortfall Capacity of 146 TJ/d. Tab 4, Schedule 11 shows the cumulative rate adjustments including the Temporary/Shortfall Capacity.
- b) Please see the response at Exhibit B1.7.
- c) Please see Exhibit A, Tab 4, Schedule 7 for the cumulative rate impacts of Union's Parkway delivery obligation proposal.
- d) The only rate class with a cumulative delivery rate increase greater than 5% of the total bill is Rate M10. The cumulative delivery rate increase for Rate M10 is 8% of the total bill.
- e) The requested information has not been provided. Union is not able to compare the rate impacts of the Parkway delivery obligation proposal to rate changes that may occur during the 2014 to 2018 IRM term as it cannot forecast IRM rate changes from 2015 to 2018.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 5, Tables 1 and 2

Please confirm that the attached spreadsheets correctly present and calculate the results of Tables 1 and 2 on pages 5 and 6 of the exhibit, with the rates assumed to be based on the fixed charges proposed by Union, and 100% recovery of allocated costs. (A copy in Excel format has been sent to the parties.)

---

**Response:**

Confirmed.

UNION GAS LIMITED

Answer to Interrogatory from  
School Energy Coalition ("SEC")

Reference: Exhibit A, Tab 5, Table 8, p. 18

With respect to Table 8:

- a) Please confirm that the load factor for M1, without the customers in the 5000-50000 range, would be 27.3%.
- b) Please confirm that the customers in 5000–50000 range would have a load factor of 30.3%, higher than either M1 or M2 customers. (54,239 customers with 805,082 volumes and 7,279 design day volumes – all from Table 1).
- c) Please confirm that customers in the 5000-50000 range will effectively subsidize the other customers in either M1 or M2, depending on what class they are in, because they use gas at a higher load factor.
- d) Please provide any reports, studies, end-use analyses or other such materials that would assist the Board in understanding why the load factor for the southern general service customers in the 5000-50000 range is higher than either the smaller or the larger customers.
- e) Please confirm that the load factor for 01, without the customers in the 5000-50000 range, would be 27.5%.
- f) Please confirm that the customers in 5000–50000 range would have a load factor of 26.4%, lower than either M1 or M2 customers. (19,309 customers with 240,474 volumes and 2,495 design day volumes – all from Table 1).
- g) Please confirm that customers in the 5000-50000 range will effectively be subsidized by the other customers in either 01 or 10, depending on what class they are in, because they use gas at a lower load factor.
- h) Please provide any reports, studies, end-use analyses or other such materials that would assist the Board in understanding why the load factor for the northern general service customers in the 5000-50000 range is lower than either the smaller or the larger customers.

---

**Response:**

- a) Confirmed. Please see Table 1, line 1 below.

Table 1  
General Service Load Factor Calculations  
Based on the Approved 2013 Forecast Annual Volumes and Design Day Demands

Line No.	Particulars	Approved 2013 Forecast (1)		
		Annual Volume	Design Day Demand	Load Factor
		(a)	(b)	(c)
<b>Union South</b>				
1	Load Factor for Rate M1 (0-5,000 m <sup>3</sup> )	2,134,461	21,444	27.3%
2	Load Factor for Rate M1 (5,000-50,000 m <sup>3</sup> )	805,082	7,279	30.3%
3	Load factor for Rate M1 (0-50,000 m <sup>3</sup> )	2,939,543	28,724	28.0%
4	Load Factor for Rate M2 (over 50,000 m <sup>3</sup> )	975,571	9,650	27.7%
<b>Union North</b>				
5	Load Factor for Rate 01 (0-5,000 m <sup>3</sup> )	643,947	6,426	27.5%
6	Load Factor for Rate 01 (5,000-50,000 m <sup>3</sup> )	240,474	2,495	26.4%
7	Load factor for Rate 01 (0-50,000 m <sup>3</sup> )	884,421	8,921	27.2%
8	Load Factor for Rate 10 (over 50,000 m <sup>3</sup> )	322,887	2,584	34.2%

Note:

(1) Calculations are based on EB-2013-0365, Exhibit A, Tab 5, page 4, Table 1.

b) Confirmed. Please see Table 1, line 2 above.

c) Not confirmed. Union does not agree that there is a material subsidy amongst customers within the Rate M1 and Rate M2 rate classes as a result of variations in load factor.

Some degree of load factor variation is normal within any rate class and is recognized as part of cost allocation and class ratemaking. The objective of the cost allocation process is to allocate costs to customer rate classes in order to support the rate design process. Cost allocation is used to provide an indication of cost responsibility at a specific point in time. It is not a precise measurement of the actual cost to serve a particular rate class, much less a particular customer. Further, as class ratemaking is based on averages, a load factor variation of approximately 2% within a rate class is reasonable.

Based on Union's 2013 Board-approved volume forecast the average customer in Rate M1 consumes approximately 2,700 m<sup>3</sup> per year. Rate M1 customers that consume 5,000 m<sup>3</sup> to 50,000 m<sup>3</sup> per year represent approximately 5% of the rate class (or approximately 50,000 out of a total of 1,059,000 customers) and may experience rate and bill impacts that differ from the average customer in the rate class.

- d) Union does not have any studies or reports on the 2013 load factors for Rate M1 and Rate M2 customers.
- e) Confirmed. Please see Table 1, line 5 above.
- f) Confirmed. Please see Table 1, line 6 above.
- g) Please see part c) above.
- h) Union does not have any studies or reports on the 2013 load factors for Rate 01 and Rate 10 customers.



UNION GAS LIMITED

Answer to Interrogatory from  
School Energy Coalition ("SEC")

Reference: Exhibit A, Tab 5

With respect to the allocation of demand-related costs:

- a) Please confirm that demand-related costs are, in general, allocated to rate classes on the assumption that they do not exhibit any economies of scale. That is, the demand-related costs per unit of demand to serve a larger customer are the same as the demand-related costs per unit of demand to serve a smaller customer, assuming the same load factor. By way of example, the demand-related costs allocated to a customer with a design day demand of 1000 m<sup>3</sup> will be approximately ten times the demand-related costs allocated to a customer with a design day demand of 100 m<sup>3</sup>.
- b) Please provide any reports, studies, or other such materials in the possession of the Company that consider whether there are no economies of scale in demand-related costs.
- c) Please confirm that, if volumetric rates are set to recover 100% of demand-related costs, the volumetric unit rates should vary inversely and linearly with load factor, and should not vary with volume.

---

**Response:**

- a) Confirmed. In general, Union allocates demand-related costs to rate classes based on design day demands, which do not consider the annual consumption volumes or load factors (i.e. economies of scale).
- b) Union engaged Navigant Consulting in 2005 to review Union's general service cost allocation and rate design. The report was filed in EB-2005-0520 (Union's 2007 rate case) at Exhibit H2, Tab 1 and is provided at Attachment 1.
- c) In Union's general service rate classes, the majority of demand-related costs are recovered in volumetric rates.

Within each general service rate class, Union's rate design includes a monthly customer charge and volumetric rates with a declining rate block structure. The declining rate block structure recognizes that larger volume customers tend to have higher load factors than smaller volume customers.

This rate design results in larger volume customers within each rate class, who consume

volume in each rate block, achieving lower average unit costs per unit of consumption.

For example, per Exhibit A, Tab 5, page 9, Table 5, the average unit price for a Rate M1 customer consuming 2,200 m<sup>3</sup> per year is 15.03 cents/m<sup>3</sup> (Line 1, column e), while the average unit price for a Rate M1 customer consuming 50,000 m<sup>3</sup> per year is 3.62 cents/m<sup>3</sup> (Line 5, column e).

As described in the Navigant Consultant report, as per Attachment 1, page 26:

*“If the size of a customer influences its annual load factor, as appears to be the case within Union’s M2 rate class, this situation can drive differences in demand-related costs among different-sized customers. If such cost differences are material in nature, they can be accommodated through either a splitting of the rate class or a change in the blocking and/or rate levels contained in the rate class.”*

The load factors for the general service rate classes are sufficiently similar, ranging from 27% to 34% (Exhibit B5.2, Table 1, column c).

Accordingly, the recovery of demand-related costs over a declining rate block structure in Union’s general service rate classes is appropriate.

Please also see the response at Exhibit B5.2 part c).



## UNION GAS LIMITED

### Review of the Cost Allocation and Rate Design of the General Service (Rate M2) Rate Class

December 5, 2005





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## I. EXECUTIVE SUMMARY

### Introduction

In its Decision With Reasons in RP-2003-0063 (dated March 18, 2004), the Ontario Energy Board (the “Board” or the “OEB”) directed Union Gas Limited (“Union” or the “Company”):

“... to conduct a cost allocation and rate design study directed at separating low volume and high volume consumers currently within the M2 rate class. In designing the study, Union should consider rate implications at different volume breakpoints and should consider the appropriate level of monthly fixed charges for each sub-class.”

In response to the Board’s Directive, Union issued a Request for Proposal (“RFP”) soliciting proposals from consulting firms experienced in cost allocation and rate design and interested in conducting an independent cost allocation and rate design review of the M2 rate class.

Based on its review of the proposals submitted in response to its RFP, Union retained Navigant Consulting Inc. (“NCI”) to conduct the required study and to make recommendations as to the need for a splitting of the M2 rate class, and if a splitting were necessary, to specify how that would be accomplished.

### Scope of the Review

It was NCI’s understanding that the independent review should be structured to:

- Examine the appropriateness of Union’s current rate design for the M2 rate class; and
- Determine whether or not there is any justification for splitting the rate class on a volumetric basis between small volume customers and large volume customers currently served within the M2 rate class.

If a volumetric split was recommended for the M2 rate class, the review also should address the following points:



- Specify the volume break point between the two rate classes as well as the rate structure (i.e., level of monthly customer charge and rate blocking) of each of the resulting rate classes.

If splitting the M2 rate class was not justified, the review should:

- Indicate whether or not the existing rate structure, including block volume breakpoints, is appropriate.

In either case, the review should consider the implications of the recommendation on Union's other rate classes, including the general service rate classes in its Northern and Eastern Operations areas.

In responding to the Board's Directive to review the M2 rate class, Union must determine, based on sound principles of cost allocation and rate design, whether or not changes to the M2 rate class are warranted. NCI understood that Union may refer to and/or incorporate the consultant's review in evidence to the Board on the design of the M2 rate class.

To satisfy this requirement, the consultant shall prepare a written report addressing each of the items delineated in the project plan and project timing section of its proposal. This report must include the consultant's expert professional opinion on the appropriateness of Union's current cost allocation and rate design for the M2 rate class. It must also include recommendations with respect to the splitting of the M2 rate class.

Finally, the consultant may be requested to provide expert evidence and/or expert witness testimony before the Board in Union's next main rates case.

This report details NCI's findings and presents its recommendations concerning the appropriate rate class and rate structure treatment for customers served under its current M2 rate class.

### **Standards for Review and Areas of Concentration**

NCI has extensive industry-wide experience in the development and review of rate structures, rate design issues, tariff components for gas and electric utilities, and the supporting cost of service study results used to guide the level of class revenues and rates.

In our experience, the appropriate elements to consider in the review of Union's M2 rate class include:





1. The various rate class configurations and related rate structures used by other gas utilities in Canada and the U.S. to serve their residential and general service customers.
2. The load characteristics of Union's M2 rate class for purposes of assessing the level of customer homogeneity that currently exists in that rate class.
3. The customer-related and demand-related costs of Union's M2 rate class through a review of its most recently filed cost allocation study (RP-2003-0063) and its underlying work papers.

These three elements defined the focus areas in which NCI concentrated its review and evaluation in this project.

## **Findings and Recommendations**

### Rates of Other Gas Utilities

- NCI's survey revealed that Union's inclusion of residential, commercial and industrial customers in a single rate schedule (i.e., not having a separate residential rate schedule) was not a unique approach in the North American gas utility industry. At the same time, however, our research indicated that the use of a single rate schedule to serve these customer groups was used by only a small number of the utilities NCI reviewed.

### Load Characteristics

- The monthly load profiles of the three major M2 rate sub-classes (residential, commercial, and industrial) were very similar.
- There was a substantial difference in annual and monthly use per customer among the four sub-classes (including the large industrial sub-class) within the M2 rate class.
- The annual load factors for the residential, commercial, and industrial sub-classes were very similar, while the large industrial sub-class had a much higher load factor in 2003, and a load factor very similar to those of the other sub-classes in 2004.
- The range of annual load factors by volumetric tier for the residential, commercial and industrial sub-classes were similar (NCI did not review the large industrial sub-class by tier due to the small number of customers in that sub-class). However,



within each sub-class, there was a relatively wide range of annual load factors observed.

- For the three major sub-classes in Union's M2 rate class, there appeared to be a direct correlation between the size of a customer and that customer's annual load factor.

### Cost Characteristics

For purposes of its analysis in this area, NCI relied upon Union's fully allocated cost of service study, and its supporting workpapers, filed in its most recently completed rate case proceeding (RP-2003-0063).

- NCI's review of Union's fully allocated cost of service study indicates that it follows standard industry practice in the functionalization, classification and allocation of the various plant and expense elements that comprise its total cost of service.
- Union's cost of service study shows material differences between the unit customer costs of the residential and commercial/industrial sub-classes within the M2 rate class. NCI's assessment of unit customer costs for the residential sub-class indicated a cost level of \$21.37 per month. Our assessment of the unit customer costs for the commercial and industrial sub-class indicated a cost level of \$67.93 per month.
- Given the material differences in unit customer costs between the residential and commercial/industrial sub-classes, and the single monthly charge applicable to all M2 customers, NCI concludes that there exist intra-class cross subsidies that need to be addressed through either a splitting of Union's M2 rate class and/or a redesign of its current rate structure.
- Union's method for calculation of its Service Replacement and Station Replacement factors are appropriate and consistent with general industry practice. Given that Union, with each cost of service filing, also regularly updates its detailed methodology to reflect changes in size and length of services, and meter and regulators installed for the various classes, NCI believes that Union's allocation factor development process provides an appropriate allocation of customer-related costs to the M2 rate class.
- Union's method of allocating distribution-related demand costs is consistent with general industry practice and its method of determining design day for the M2 sub-classes appears to be reasonable.



- Union's cost of service study shows no material differences between the unit demand costs of the residential and commercial/industrial sub-classes within the M2 rate class.

NCI recommends that Union create a new Small General Service rate class (i.e., a new "M1" rate class for residential, small commercial, and small industrial customers) and a new Large General Service rate class (i.e., a new M2 rate class for large commercial and large industrial customers), and include the current large industrial customer sub-group in its new M2 rate class, to address the existing intra-class cross subsidies within Union's current M2 rate class.

We further recommend that a volumetric breakpoint of 50,000 m<sup>3</sup> per year be established to split the current M2 rate class into new small and large rate classes.

Finally, NCI recommends the following rate structure for new Rate M1:

**New Rate M1 - Recommended Rate Structure**

<b>Rate Structure</b>	<b>Unit Rate ¢ per m<sup>3</sup></b>
Monthly Charge	\$14.00
First 100 m <sup>3</sup>	8.25
Next 150 m <sup>3</sup>	7.50
Over 250 m <sup>3</sup>	5.88

NCI recommends the following rate structure for new Rate M2:

**New Rate M2 - Recommended Rate Structure**

<b>Rate Structure</b>	<b>Unit Rate ¢ per m<sup>3</sup></b>
Monthly Charge	\$70.00
First 1,000 m <sup>3</sup>	5.70
Next 6,000 m <sup>3</sup>	5.10
Next 13,000 m <sup>3</sup>	4.03
Over 20,000 m <sup>3</sup>	3.17



### Implementation of NCI's Recommendations

NCI's recommended new rate classes and associated rate structures should be viewed as an initial step in the process of reconfiguring the M2 rate class and redesigning its rate structure. However, the scope of work for this rate review did not envision the development of a completely finalized rate proposal using the most current load and cost data available. Therefore, we fully expect that Union will be required to carefully review the feasibility, business implications, and specific data needs of our recommendations well in advance of finalizing any specific rate design proposal for submission to the Board. The needed activities should include the following:

- Identify and "code" the specific customers to be served under new Rates M1 and M2;
- Compile the necessary detailed load data for a more recent time period (and on a forecasted basis) to construct bill frequency data for purposes of confirming our key findings;
- Finalize the level of monthly charges, set final rate block breakpoints, and set the associated rate block levels and differentials;
- Evaluate the implications of NCI's recommendations on Union's billing systems (Banner and Contrax) to determine the types of programming modifications that would be required to accommodate these recommended rate changes, including the cost and timing of such modifications;
- Review of the data systems used by various groups for the tracking of volumes and revenues;
- Reconfigure Union's fully allocated cost of service study to accommodate the two new rate classes;
- Evaluate the need to track information that will allow Union to derive new allocation factors that recognize the specific customer-related and demand-related costs of serving customers included in new Rates M1 and M2;
- Assess the support activities that provide information for the cost allocation and rate design processes;



- Review Union's other services (e.g., unbundled services) to determine if they will have to be split along similar lines, and the implications of such changes on its existing tariff structures, administrative processes, and other support activities;
- Review the administration of its general service Direct Purchase market to determine if there will be any impacts, and;
- Assess and finalize the bill comparisons presented in this report within the context of Union's next base rates proceeding to account for the expected changes in its overall revenue requirement.



## II. BACKGROUND PERSPECTIVES

### Regulatory History of General Service Rates

Up until the early 1980s, Union served its smaller customers under a separate Residential rate schedule (Rate M1) and a separate General Service rate schedule (Rate M2). Over the ensuing years in a number of rates proceedings, the OEB addressed various ratemaking issues related to Union's Rates M1 and M2, including the appropriateness of serving smaller customers under a single or multiple rate schedules. As an historical context for the issues addressed in this review, a summary of those proceedings (including Enbridge and the former ICG Utilities (Ontario) Limited) and the relevant issues is provided below.

#### E.B.R.O 371-II

In E.B.R.O. 371-II, Union proposed that Rate M1 be applicable to all residential customers other than group billed, single family residential customers who were to be served under Rate M2. As part of its evidence, Union presented various rate analyses conducted by Dr. Herz demonstrating that: "... there is little difference in load factor between customers served under Rate M1 and M2, except for the industrial customers served under Rate M2. Further, the witness from the Company saw no difference in cost to serve residential as opposed to non-residential customers with the same conditions of service."<sup>1</sup>

Based on this evidence, the OEB concluded that:

"The Board sees merit in combining Rates M1 and M2 and hardly any disadvantage in doing so, and directs Union to address itself to this issue in its next rates case application before the Board. The Board wishes to make clear however, that in favouring the merging of these two rates to eliminate discrimination as to the function of a customer's establishment, it is not precluding a subsequent schism of the combined rate on merit along other lines. Indeed, the Board thinks that Rate M2 is too broad in its scope and that there is need to divide it by condition of service, and encourages Union to do so."<sup>2</sup>

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<sup>1</sup> OEB Decision in E.B.R.O. 371-II dated December 31, 1980, at page 28.

<sup>2</sup> OEB Decision in E.B.R.O. 371-II dated December 31, 1980, at pages 28 – 29.



### **E.B.R.O. 380**

In 1981, in response to the Board's directive in E.B.R.O. 371-II, Union proposed to merge its Residential Service (Rate M1) rate class and its General Service (Rate M2) rate class into a single rate schedule, entitled General Service Rate Schedule M2. In response to Union's M2 rate proposal, the OEB stated:

"The Board considers that the combining of Rates M1 and M2 as proposed by Union is an acceptable approach and will approve the combined rate, modified to recover the appropriate portion of the revenue deficiency found herein."<sup>3</sup>

During that proceeding, Board Counsel recommended that the Board approve the combining of rates subject to Union providing certain evidence to demonstrate that no undue discrimination has resulted. The Board agreed and directed Union to file such evidence at the earliest opportunity.

### **E.B.R.O. 388**

In 1983, in response to the Board's directive to prepare evidence to assess the level of intra-class discrimination created in Union's new Rate M2 rate class, it filed the directed study. Based on its results, Union proposed to revert back to separate residential and commercial/industrial rate schedules. The evidence presented by Union contended that a separate rate schedule for residential customers was desirable in order to:

- "1) permit simplification of the rate structure, noting that residential customers were now being served with a rate that has a second block higher than the first and third block, which some of them do enter, which is lower than the second;
- 2) establish a better position from which to respond appropriately to changes in the competitive situation with respect to both oil and electricity, noting that electricity pricing is becoming more competitive, especially in respect to residential customers;
- 3) establish a better position from which to implement seasonal rates should the use of such rates be indicated in the future;
- 4) provide flexibility in rate design in order that rates may match costs more closely for both residential and non-residential customers;
- 5) obtain a relatively homogeneous group of customers, noting that the market characteristics of residential customers may vary substantially from those of non-residential customers;

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<sup>3</sup> OEB Decision in E.B.R.O. 380 dated September 14, 1981 at page 90.



- 6) enable the revenue deficiency of the residential customers to be dealt with separately;
- 7) allow differing rates of return by customer classes as a reflection of differing risks;
- 8) allow social aspects to be taken into account.”<sup>4</sup>

The Board rejected this proposal, noting:

“While Union’s proposed segregation of a residential class might appear to reduce discrimination, in the Board’s view it merely converts some intra-class subsidization into inter-class subsidization without any overall change.

The Board views the inclusion of the residential customers within the general service class as ensuring that there is no discrimination between small volume customers, having essentially the same conditions of service and cost causality.

The intra-class cost study does indicate the need for division of Rate M2 to lessen internal subsidization but in the Board’s opinion such division should be by conditions of service and cost causality rather than by the functional use of a customer’s establishment.”<sup>5</sup>

Of particular note are selected other points made by the Board in rejecting Union proposal to have a separate residential rate schedule. First, the Board believed that “homogeneity can be obtained by splitting smaller customers from larger ones.”<sup>6</sup> Then, at page 129 of its Decision, the Board stated that, “any support for splitting and differentiating rates for social reasons has been dismissed by the Board in previous cases...” Finally, in the Board’s opinion, “as stability of customer classification and rate design is a fundamental principle of rate making, there must be compelling reasons for a change especially where such change is a reversion.”<sup>7</sup>

### **E.B.R.O. 411 – III ICG Utilities (Ontario) Limited**

In a related matter, ICG Utilities (Ontario) Limited (“ICG”), now Union’s Northern and Eastern Operations Area, was directed by the Board in E.B.R.O. 399 (in 1984) to undertake a

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<sup>4</sup> OEB Decision E.B.R.O. 388 dated April 22, 1983 at pages 125-126.

<sup>5</sup> OEB Decision in E.B.R.O. 388 dated April 22, 1983 at page 129.

<sup>6</sup> OEB Decision in E.B.R.O. 388 dated April 22, 1983 at page 128.

<sup>7</sup> OEB Decision in E.B.R.O. 388 dated April 22, 1983 at page 129-130.





study of its rate classes. As part of that study, ICG proposed to combine its residential Rate 01 with small customers previously served under its existing Rate 08 (General Firm Service), thereby creating a new Rate 01 – Small Volume General Firm Service. In addition, it proposed to create a new Rate 10 - Large Volume General Firm Service by combining Rate 15 (Industrial and Commercial Firm Service) with the remaining customers from its existing Rate 08. Specifically, ICG proposed that any customer whose total annual gas requirements were 50,000 m<sup>3</sup> or less should be served under Rate 01 – Small Volume General Firm Service.

In its Decision, the Board noted that it “considers that it is a generally recognized principle of ratemaking that customers who have similar usage patterns and, therefore, impose similar costs on a utility’s system be similarly grouped or classified and charged similar rates.”<sup>8</sup> On that basis, the Board approved ICG’s proposal to combine residential customers with smaller general service customers under its new Rate 01.

Regarding ICG’s Rate 10 proposal, the Board noted “the evidence that the present pattern of use by the larger Rate 08 customers is similar to that of the smaller customers presently served under Rate 15. As noted earlier, the Board is of the opinion that where there are similarities in usage patterns, it is appropriate that these customers be classified and served under the same rate schedule. Accordingly, the Board approves the elimination of Rate 15 and the creation of a new Rate 10 as proposed by ICG.”<sup>9</sup>

#### **RP-2003-0048 – Enbridge Gas Distribution Inc.**

In its Settlement Proposal in the above referenced rates proceeding<sup>10</sup>, Enbridge Gas Distribution Inc. (“Enbridge”) addressed its review of Rate 6 – General Service rate class that it agreed to undertake in its Settlement Proposal in RP-2002-0133. The objective was to enhance the homogeneity of customers taking service under that rate. The undertaking involved examining such factors as volumes, load profiles, customer-related capital costs and avoided costs, as well as the rate design. Enbridge’s review of its Rate 6 class consisted of the following findings:

“Based on the findings from its load profile, customer’ related costs and the avoided costs, the Company has determined that a separation of the Rate 6 class into two or more classes was not warranted. However, the review highlighted the fact that

<sup>8</sup> OEB Decision in E.B.R.O 411-III dated May 20, 1988 at page 14.

<sup>9</sup> OEB Decision in E.B.R.O 411-III dated May 20, 1988 at pages 16 - 17.

<sup>10</sup> Enbridge Settlement Proposal dated August 13, 2003 (Updated August 27, 2003), RP-2003-0048, Exhibit B, Tab 1, Schedule 4, Pages 13 - 14.



while customer related costs are not substantially differentiated, there is a wide dispersion of volume in the rate class. Also, while the load profile characteristics are not sufficiently differentiated to warrant a rate class segregation, there is a small improvement in load factor for higher volume customers. The combination of these observations indicates that larger customers within the rate class impose a lower cost per unit of volume than smaller customers do. Rate 6 currently has a block structure that is intended to reflect lower unit costs as consumption increases. The review therefore focused on the adequacy of the existing block intervals and the associated block charges.”<sup>11</sup>

As part of its settlement, Enbridge agreed to restructure Rate 6 with new blocks and new rates for each block in the manner described in its rate class review.

### **RP-2003-0063**

In Union’s last main rates proceeding, intervenors wanted to split Union’s M2 rate class based on volumes to reduce intra-class subsidies. As presented in the Board’s Decision:

“Most intervenors agreed that M2 consists of a wide range of customers and supported a split in the M2 class to reduce intra class subsidization and improve revenue to cost ratios. However, there were different views as to how the split should be effectuated.

School Boards submitted that Union should split M2 based on end-use categories (commercial and industrial) similar to Enbridge’s Rates 1 and 6. School Boards noted since Union separates residential and commercial consumers for cost allocation purposes, rate design should reflect the same split. School Boards also noted that at one time there were two rate classes namely, Rate M1 and Rate M2.

Schools, EDGI, IGUA and VECC supported splitting the M2 rate class, based on volume.”<sup>12</sup>

On this issue of splitting Union’s M2 rate class, the Board commented that:

“ The Board agrees that rate design principles typically do not include end-use categories. However, the Board is not convinced that the load profile for commercial/industrial customers is so similar to that of residential customers as to be

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<sup>11</sup> *Enbridge Exhibit A, Tab 7, Schedule 4 dated June 6, 2003 at page 4 of 9.*

<sup>12</sup> *OEB Decision in RP-2003-0063 dated March 18, 2004 at page 147.*



functionally indistinguishable. It is counter-intuitive that a high volume industrial user will incur the same amount of customer related costs as a residential customer. It seems unreasonable that Union cannot differentiate members of this class on the basis of consumption."

Based on these findings, the Board directed Union:

"...to conduct a cost allocation and rate design study directed at separating low volume and high volume consumers currently within the M2 rate class. In designing the study, Union should consider rate implications at different volume breakpoints and should consider the appropriate level of monthly fixed charges for each sub-class."<sup>12</sup>

### **Union's Response to the Board's Directive**

In response to the Board's M2 Directive, Union retained NCI to conduct the required study and to make recommendations as to the need for a splitting of the M2 rate class, and if a splitting were necessary, to specify how that would be accomplished. This report details NCI's findings and presents its recommendations concerning the appropriate rate class and rate structure treatment for customers served under Union's current M2 rate class.

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<sup>12</sup> *OEB Decision in RP-2003-0063 dated March 18, 2004 at page 147.*



### III. EVALUATIVE CRITERIA USED TO REVIEW THE M2 RATE CLASS

At the outset of the project, NCI established a set of criteria to evaluate the need to modify the customer configuration and/or rate design of Union's M2 rate class. These criteria were chosen based upon NCI's extensive utility costing and rate design experience, input from Union staff<sup>13</sup>, and the statements of the Board and other stakeholders. In the aggregate, these criteria served as the "rate framework" for guiding NCI's detailed assessment of Union's M2 rate class.

The evaluative criteria utilized by NCI are as follows:

1. The underlying load characteristics of the customers served in Union's M2 rate class
  - a. Type of load (end-use characteristics)
  - b. Size of customer
  - c. Monthly and seasonal load patterns
  - d. Annual load factor
2. The underlying costs characteristics of the customers served in Union's M2 rate class
  - a. Customer-related costs
  - b. Demand-related costs
3. Any relevant industry-wide trends observed in the rate class configurations and related rate structures used by other gas utilities to serve their residential and general service customers
4. Ability to satisfy sound utility rate design principles (e.g. cost-based, customer equity, simplicity, understandability, and customer acceptability)
5. Ability to avoid any undue inter-class and intra-class cross-subsidies
6. Enable the continued marketability of regulated gas service to customers

NCI referred to these criteria throughout our review to ensure the information reviewed and the analyses conducted by NCI was focused properly so that our findings and

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<sup>13</sup> *Input from Union staff included NCI's review of publicly filed information and our initial discussions with Union staff during the project initiation meeting.*



recommendations would be fully responsive to the objectives of the M2 Directive issued by the Board.



## IV. FINDINGS ON RESEARCH BENCHMARKING THE M2 RATE CLASS

### Areas of Review

NCI researched and catalogued the various rate class configurations and related rate structures used by other gas utilities in Canada and the U.S. to serve their residential and general service customers. This information was used to evaluate how Union's M2 rate class compares to comparable rate classes in other North American gas utilities.

We selected a representative sampling of gas utilities based on our knowledge of similarly situated utilities (e.g., size, type of service area, customer mix) to Union and input provided by Union's staff. We structured our cataloging of rate classes and rate structures to facilitate a direct comparison of the key design elements in each tariff (e.g., customer applicability, rate structure, volumetric limitations) to those of Union's Rate M2 tariff.

Based on NCI's selection process, we reviewed the tariffs of Canadian gas utilities operating in eight service areas, and the tariffs of U.S. gas utilities operating in forty service areas.

Our detailed survey results are presented in Appendix A to this report.

### Review of Residential Tariffs

NCI researched and catalogued the various rate class configurations and related rate structures used by other utilities in Canada and the U.S. to serve their residential and general service customers. NCI's survey revealed that Union's inclusion of residential, commercial and industrial customers in a single rate schedule (i.e., not having a separate residential rate schedule) was not a unique approach in the North American gas utility industry. At the same time, however, our research indicated that the use of a single rate schedule to serve these customer groups was used by only a small number of the utilities NCI reviewed. In Canada, two other utilities, ATCO Gas and GazMetro, do not have a separate residential rate schedule. Of the forty U.S. gas utilities surveyed by NCI, seven gas utilities do not have a separate residential rate schedule. In addition, Southern California Gas Company has a general rate applicable to residential and general customers for one of its service areas (Area G).



NCI also observed that some residential rate schedules include multi-family housing, with six units being the highest number reflected in the residential class, and four units being the most common. Eight of the surveyed U.S. utilities have separate multi-family tariffs.

Although end-use characteristics appear to be the most common method of rate classification for residential and general service classes of service in Canada and the U.S., NCI does not believe that end-use characteristics are conceptually superior to using load and cost characteristics for rate classification purposes. Furthermore, our experience in this area strongly suggests that historically separate residential rate schedules (or rate classes) were established for utilities to recognize the various social and political considerations that are part of the ratemaking process in many jurisdictions in North America. As an example, certain state regulatory bodies in the U.S. rely upon the existence of a separate residential class to adopt non-cost based rate principles targeted to residential customers that can often result in wider variations in the revenue-to-cost ratios (or returns on net rate base) between the residential class and the utility's other rate classes. These considerations also can influence the level of class revenues and types of rate structures across the residential, commercial, and industrial classes of service.

### **Review of General Service Tariffs**

The majority of those gas utilities with general service rate schedules had both small and large general service classes, with annual gas volume being the defining characteristic. The utilities without a large or medium general service class were smaller utility companies located in more rural areas where segmentation of that class was less important due to the smaller-sized customers served by the utility. Two utilities, Atmos Energy (Kentucky) and Questar Gas (Utah) have separate monthly "meter" charges in their general service tariffs.<sup>14</sup> Atmos Energy's meter charges are dependent upon annual gas use while Questar Gas' meter charges are dependent upon whether the customer is residential or non-residential.

The gas utilities surveyed with combined commercial/industrial tariffs have, at a minimum, separate small and large rate schedules based on annual or daily gas volumes. The majority of these utilities have separate small, medium and large rate schedules, with annual gas use as the basis for assigning customers to the three rate schedules.

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<sup>14</sup> Other gas utilities not reflected in NCI's survey group that utilize separate monthly meter charges include Philadelphia Gas Works and Citizens Gas & Coke Utility (serving Indianapolis).



## V. ANALYSIS OF LOAD CHARACTERISTICS OF THE M2 RATE CLASS

### Areas of Analysis

NCI analyzed the load characteristics of Union's M2 rate class for purposes of assessing the level of customer homogeneity that currently exists in the rate class. This analysis provided us with initial insights into the potential cost of service differences that exist among the Rate M2 customers. NCI analyzed Union's 2003 and 2004 billing data<sup>15</sup> for the M2 rate class. This analysis consisted of a detailed review of the load characteristics of customers served under the M2 rate class, including:

- Bill frequency data (on a monthly and annual basis);
- Load profiles of varying sized customers (i.e., monthly, seasonal, and annual gas volumes; peak day demands, annual load factors); and
- Cluster analyses to identify appropriate volume breakpoints and rate block structure(s).

We evaluated the extent to which the M2 rate class exhibits homogeneous characteristics. Rate class homogeneity refers to the concept of grouping together customers that share similar or common characteristics for purposes of establishing a utility's rate classes. These characteristics can relate to gas consumption (e.g., annual use, load factor), cost of service, competitive factors, gas end-use applications or other relevant considerations. This concept is important in designing utility rates because it is administratively desirable to group similarly situated customers into a fewer and finite number of rate classes rather than to have a separate rate schedule available for each and every customer. In general, the more homogeneous the customers are within a particular rate class, the easier it is to establish rates for that class in a manner that minimizes concerns over intra-class cross subsidies.

Obviously, there is a balance that must be struck between the number of rate classes and the precise configuration of the related rate structures. For instance, as fewer rate classes are utilized, there is a greater likelihood that customers within each rate class will be more heterogeneous in character. This situation can make it more difficult to charge such

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<sup>15</sup> The data used reflects consumption and number of customers by tier (i.e. a pre-defined range of annual consumption consistent with the usage characteristics of the particular rate class) for the years 2003 and 2004. The summary data was derived using cycle-billed Banner data for customers with full year information. Data was not weather normalized.





customers on an equitable basis without the use of a more complex, multi-block rate structure.

Using Union's bill frequency data, we reviewed where customers' gas consumption fell within the rate blocks of the M2 rate class. This information enabled us to determine whether or not the number of rate blocks in the M2 rate class should be changed, assuming the rate class was maintained rather than split into new multiple rate classes.

Finally, we evaluated the relationship between customer size and annual load factor. This enabled us to determine to what extent the use of declining rate blocks in the Rate M2 rate structure was warranted. If larger-sized customers use the gas utility's system more efficiently than smaller-sized customers, the unit charges of the higher usage rate blocks should be set lower, all other things being equal. This recognizes that customers with higher load factors tend to cause the utility to incur less demand-related (or capacity-related) fixed costs per unit of gas consumption than those customers with lower load factors.

### **Composition of the M2 Rate Class**

The M2 rate class consists of all residential and non-contract commercial/industrial customers in Union's Southern Operations Area. Appendix B to this report provides a breakdown of the top ten customer types in the M2 rate class on the basis of number of customers and total gas consumption. On both a customer and consumption basis, single-family detached housing is the largest customer segment in the M2 rate class. On a customer basis, residential use represents the top three customer segments, comprising over 90% of the total number of customers. When viewed on the basis of consumption, single-family detached housing is 59% of total consumption, while apartment buildings (6.89%) and other commercial use (6.63%) occupy second and third place, respectively.

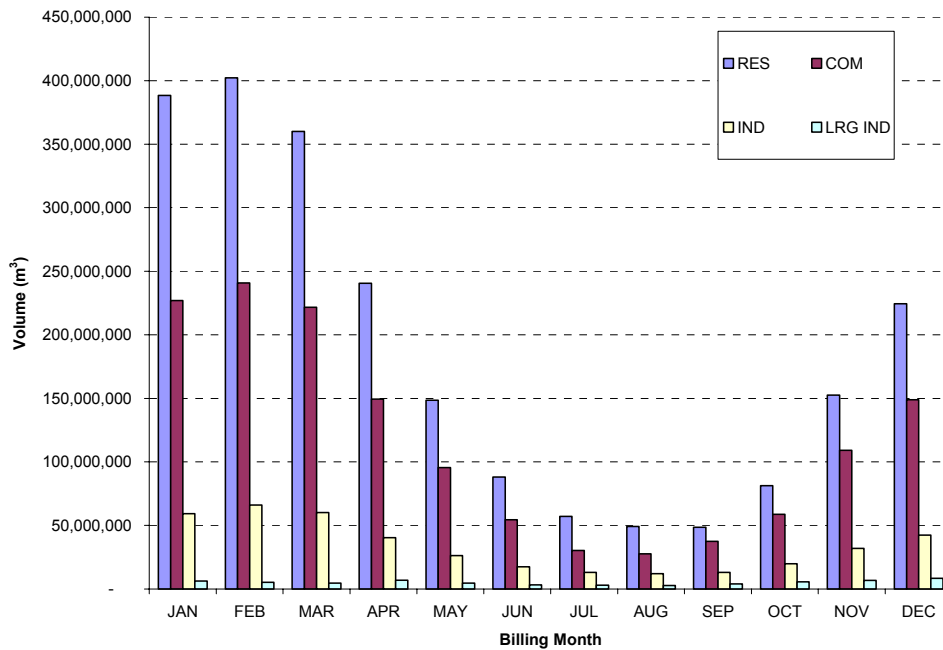
### **Monthly Load Profiles**

NCI examined Union's monthly load profiles using two different methods. The first method was through a comparison of monthly volume in each sub-class (i.e., residential, commercial, industrial, and large industrial) in the M2 rate class. The results of this review are shown graphically on Charts 1 and 2. These graphs show that the pattern of use by each of the sub-classes is generally similar, with the highest usage occurring in the winter and the lowest usage occurring in the summer.



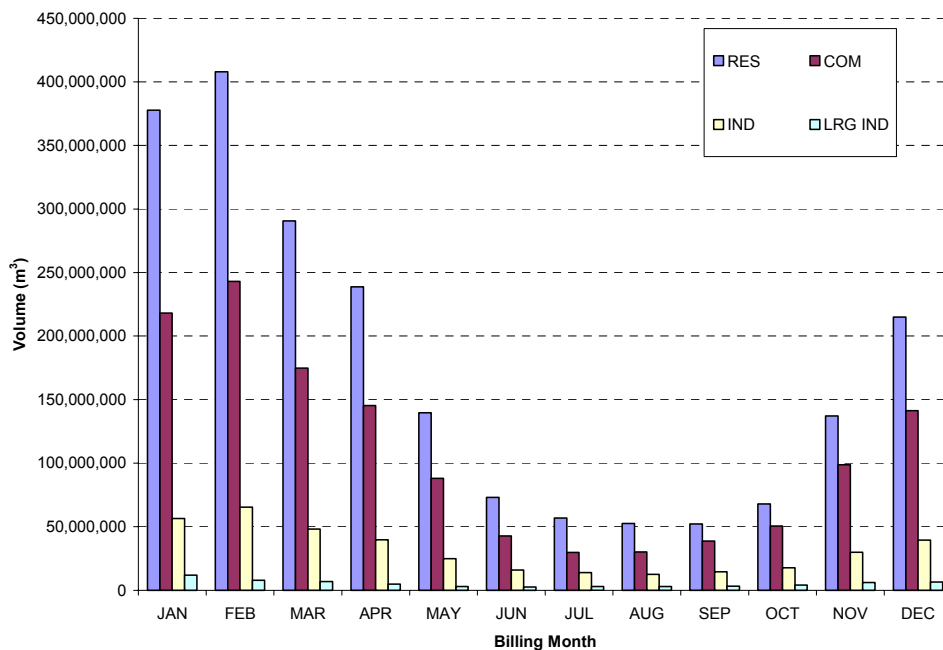
## CHART 1

Monthly Usage by Customer Sub-Class in 2003



## CHART 2

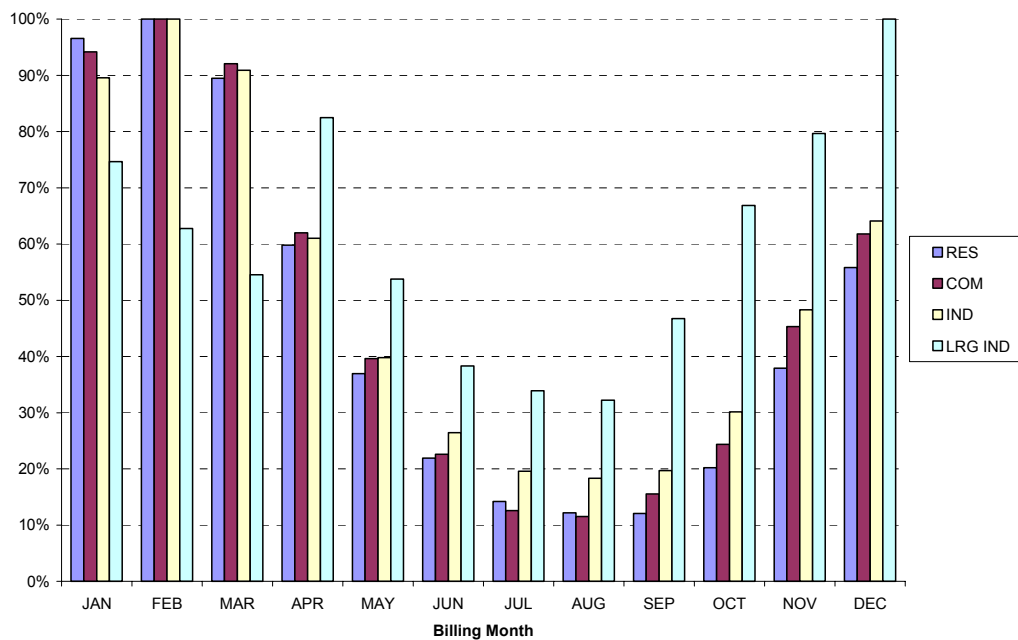
Monthly Usage by Customer Sub-Class in 2004





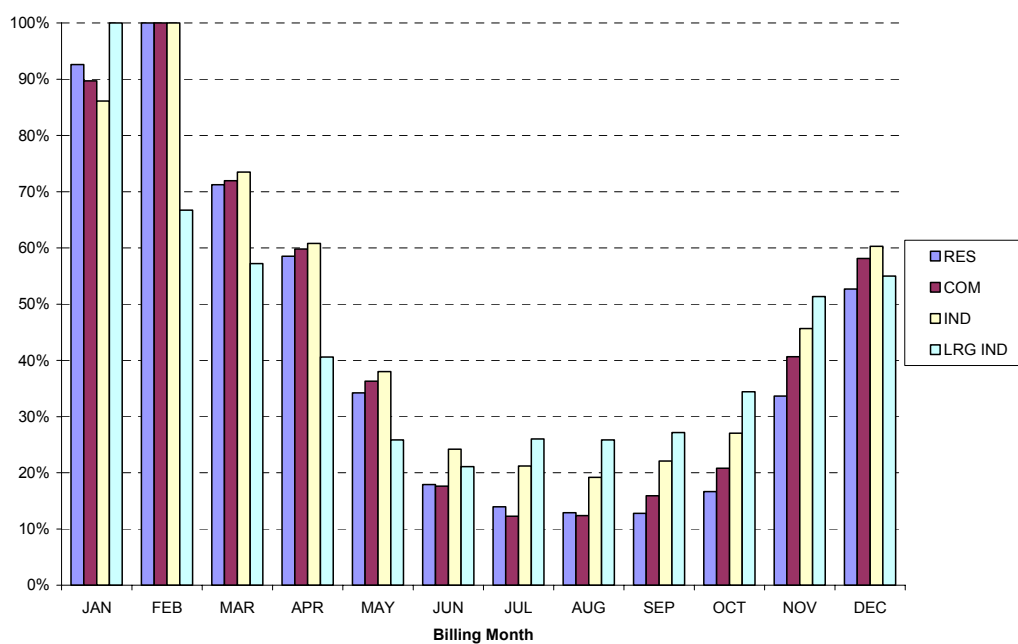
### CHART 3

Monthly Usage as % of Maximum Usage in 2003



### CHART 4

Monthly Usage as % of Maximum Usage in 2004





The second method was to examine each month's load by sub-class as a percent of the load for the maximum month of the sub-class. For all sub-classes except for large industrial, the maximum month occurred in February in 2003 and 2004<sup>16</sup>. For the large industrial sub-class, the maximum month occurred in December and January, respectively. This information is shown on Charts 3 and 4. Once again, the patterns of use were generally similar, although the Large Industrial sub-class showed some differences during 2003.

### Average Use per Customer

The one defining difference between the Rate M2 sub-classes was use per customer. As shown in Tables 1 and 2, the differences were obvious and not unexpected. Appendix C to this report provides details of the gas volumes, customers and use per customer by month for the Rate M2 sub-groups.

**TABLE 1**  
**Average Use per Customer (Actual 2003)**

Rate M2 Sub-Class	Annual Volume (m <sup>3</sup> )	Number of Customers	Average Use per Customer (m <sup>3</sup> )
Residential	2,240,827,992	817,445	2,748
Commercial	1,401,035,551	78,581	17,847
Industrial	401,750,026	5,198	76,740
Large Industrial	60,918,112	45	1,353,736

**TABLE 2**  
**Average Use per Customer (Actual 2004)**

Rate M2 Sub-Class	Annual Volume (m <sup>3</sup> )	Number of Customers	Average Use per Customer (m <sup>3</sup> )
Residential	2,109,234,499	840,312	2,518
Commercial	1,301,718,223	77,804	16,622
Industrial	378,759,677	5,249	72,047
Large Industrial	63,665,970	51	1,248,352

<sup>16</sup> Based on data compiled on a cycle-billed basis.



### Annual Cumulative Volume by Sub-Class

NCI also examined Union's annual volume in the M2 rate class for each of the three sub-classes by consumption tier. Appendix D to this report presents this information for 2003 and 2004. These graphs clearly show that the cumulative volume in the residential sub-class ends in a significantly lower consumption tier compared to the data for the commercial and industrial sub-classes. This result also points out that the majority of consumption in Union's residential sub-class occurs only in the first block of its current M2 rate structure.

In contrast, the graphs show that for the commercial and industrial sub-classes the cumulative volumes extend far beyond the point for the residential sub-class because of the significantly larger size and diversity of customers in those two sub-classes.

### Annual Load Factors

Another method of examining a rate class is through its load factor, which is the ratio of average day use to peak day use. Given the large number of customers in the M2 rate class and since, with the exception of the large industrial sub-class, customers are read on a monthly billing cycle basis, it was not possible to determine the actual peak day use of individual customers. Therefore, NCI used the average daily use by sub-class during February, which was reflective of customers' relative consumption levels during Union's system peak day, as a proxy for peak day usage. The annual load factors of each sub-group are shown in Table 3 using this peak day estimating method.

**TABLE 3**  
**Annual Load Factors**

Rate M2 Sub-Class	2003	2004
Residential	44%	41%
Commercial	46%	43%
Industrial	48%	46%
Large Industrial	83% <sup>17</sup>	45%
Total Rate M2	46%	42%

<sup>17</sup> NCI believes that the much higher load factor observed for the large industrial sub-class in 2003 may have been an aberration. The large industrial sub-class includes customers with alternate fuel capability whose gas consumption is highly variable from year to year.



Although this estimating method tends to derive higher absolute load factors than those computed from actual demand data, NCI viewed this as a reasonable approach for our evaluations since only relative load factors among and within the sub-classes were required. On a relative basis, the annual load factors presented in Table 3 were very consistent with the annual load factors derived from the load data reflected in Union’s fully allocated cost of service study.

In Union’s fully allocated cost of service study, the annual load factor for the Commercial/Industrial sub-group was approximately 6 percent higher than the annual load factor for the Residential sub-group. The data presented in Table 3 reflects comparable results. In 2003, the Commercial/Industrial sub-group’s load factor was approximately 6 percent higher than the Residential load factor, and in 2004, the Commercial/Industrial sub-group’s load factor was 8 percent higher than the Residential load factor.

With the exception of the large industrial sub-class during 2003, the annual load factors of the Rate M2 sub-classes were very similar. NCI extended this load factor calculation technique to the 2003 and 2004 bill frequency data for the various Rate M2 sub-classes by calculating an annual load factor for each of the consumption tiers. These calculated load factors were also similar among the sub-classes, as shown in Table 4, although the range of annual load factors within any single sub-class varied significantly.

**TABLE 4**  
**Range of Annual Load Factors by Consumption Tier**

Rate M2 Sub-Class	2003		2004	
	Low	High	Low	High
Residential	38%	60% <sup>18</sup>	34%	56%
Commercial	33%	62%	29%	63%
Industrial	32%	77%	28%	89%
Total Rate M2	40%	62%	38%	78%

Appendix E to this report contains bar graphs depicting the annual load factors by sub-class and by consumption tier for 2003 and 2004. The most important observation here was that there appeared to be a direct correlation between the size of a customer and that customer’s

<sup>18</sup> A single consumption tier with a calculated load factor of 146% has been excluded as an “outlier” data point. This consumption tier represents a single customer whose peak consumption does not occur in the month used as a measure of peak day demand.



annual load factor. The commercial and industrial sub-classes clearly demonstrated such a direct relationship while the correlation was less strong within the residential sub-class.

This outcome was not surprising considering the nature of the residential sub-class. This sub-class is relatively homogeneous compared to the other two sub-classes, especially with regard to its limited end-uses for natural gas. Smaller residential customers, typically consuming less than 1,000 m<sup>3</sup> per year, primarily use gas only for cooking, water heating, and/or clothes drying - with such loads exhibiting a relatively high load factor (with less temperature sensitive loads). In contrast, larger residential customers, typically consuming approximately 2,600 m<sup>3</sup> per year, use gas primarily for space heating, have a relatively low load factor due to the higher degree of temperature sensitivity.

### **Key Observations**

Based on NCI's review of the load data provided by Union for the M2 rate class, NCI makes the following observations:

- The monthly load profiles of the three major M2 rate sub-classes (residential, commercial, and industrial) were very similar.
- There was a substantial difference in annual and monthly use per customer among the four sub-classes (including the large industrial sub-class) within the M2 rate class.
- The annual load factors for the residential, commercial, and industrial sub-classes were very similar, while the large industrial sub-class had a much higher load factor in 2003 and a load factor very similar to those of the other sub-classes in 2004.
- The range of annual load factors by consumption tier for the residential, commercial and industrial sub-classes were similar (NCI did not review the large industrial sub-class by tier due to the small number of customers in that sub-class). However, as Table 4 depicts, within each sub-class, there was a relatively wide range of annual load factors observed.
- For the three major sub-classes in Union's M2 rate class, there appeared to be a direct correlation between the size of a customer and that customer's annual load factor.

Based on these observations and the primary criteria for the grouping of customers into rate classes identified through NCI's previously discussed research - (1) type of load (end-use characteristics); (2) size of customer; (3) monthly and seasonal load patterns; and (4) annual



load factor, it appears that the only criterion that could justify a splitting of the M2 rate class would be customer size. However, size alone would not justify a splitting of the class absent a showing that size causes material differences in the cost of serving customers that only could be addressed through a splitting of the rate class.

If the size of a customer, as defined by annual gas use, drives material differences in customer-related costs (e.g., larger meter sets and larger diameter service lines), this can be accommodated without splitting the M2 rate class. As discussed earlier, other utilities accommodate such costs differences by having different "meter" or monthly charges that are dependent upon the size and/or type of meter installed at the customer's premises.

If the size of a customer influences its annual load factor, as appears to be the case within Union's M2 rate class, this situation can drive differences in demand-related costs among different-sized customers. If such cost differences are material in nature, they can be accommodated through either a splitting of the rate class or a change in the blocking and/or rate levels contained in the rate class.





## VI. REVIEW OF UNION'S FULLY ALLOCATED COST OF SERVICE STUDY

### Areas of Analysis

NCI analyzed the customer-related and demand-related costs of Union's M2 rate class through a review of its most recently completed cost allocation study and its underlying work papers. Specifically, we reviewed the basis upon which Union derived the allocation factors and/or direct assignments of customer-related and demand-related costs to the M2 rate class, and to its two sub-classes (Residential and Commercial and Industrial) reflected in its cost allocation study.

For purposes of its analysis, NCI relied upon Union's fully allocated cost of service study, and its supporting workpapers, filed in its most recently completed base rates case proceeding (RP-2003-0063). Details of the derivation of the customer-related and demand-related unit costs for Union's M2 rate class are presented in Appendix F to this report.

NCI focused its analysis in this area on distribution-related customer and demand costs because these cost elements represent the majority of costs recovered through Union's monthly and delivery charges. In addition, based on our utility costing experience, we expected that any differences in the unit costs to serve the sub-classes within the M2 rate class would be greatest within the distribution-related customer cost category.

We reviewed the variation in customer-related and demand-related costs across different sized customers within this rate class by examining the cost allocation treatment of the various plant and expense components that support service to customers under Union's M2 rate class. Our review focused on specific customer-related plant and expense components that typically require the development of detailed analyses to determine the assignment of costs to specific customers or groups of customers, including:

- Service line
- Meter
- Regulator
- Customer installation
- Other plant on customer premises
- Customer billing and accounting
- Meter reading
- Uncollectibles expense



We examined for each of these items the variation in unit costs associated with the plant and expenses incurred to serve different sized customers. To the extent such historical (i.e., embedded costs) costs could not be readily differentiated between different sized customers, we examined the current costs of these plant and/or expense components using the engineering standards for typical size customers relied upon by Union when planning to connect new customers to its gas distribution system.

### **Review of Customer-Related Costs**

The two major factors used to allocate customer-related costs to the various classes of service in Union's cost of service study are Service Replacement Costs and Station Replacement Costs. The Service Replacement factor is used to allocate distribution mains and service costs and some distribution operations and maintenance expenses, while the Station Replacement factor is used to allocate the costs of meters, regulators and stations.

### **Service Replacement Factor**

Union develops service replacement costs for individual customers based on the size and type of service used to serve that customer. However, due to the number of customers in the M2 rate class, an individual replacement cost analysis for most of the class is not performed. Instead, an individual analysis is conducted for the large commercial and industrial customers in the M2 rate class, while for the remaining residential, commercial and industrial customers, an average replacement cost is developed based on the customer type and an estimate of the type and size used to connect the particular customer type.

All pipe (classified as service-related) sized up to 1-inch diameter is assigned to residential customers and a portion of service pipe between 1 inch and 2 inch is allocated to residential. The commercial customers are allocated a portion of service pipe between 1 inch and 2 inch, with the majority of the service pipe being 1.5 inches. The industrial customers are allocated a portion of the 2-inch service pipe and are allocated all service pipe over 2 inches. A cost per meter is assigned to each service pipe size and then an average cost per meter is computed. This unit cost is applied to the average service length to obtain a service replacement cost.

### **Station Replacement Factor**

As with the Service Replacement factor, the Station Replacement factor is based on replacement costs for individual customers in Union's various rate classes based on the type of meter and regulator and installation costs. However, due to the large number of



customers in the M2 rate class, an individual customer analysis is not performed. Instead, current costs are estimated annually for the residential, commercial and industrial customers based on the type of meter and regulator to be installed for a typical customer. An average of the six most recent years of costs is used to develop the unit cost for Union's cost of service study. The average cost is then applied to the forecasted number of meters to develop the station replacement factor.

### **Other Customer Allocation Factors**

The other major direct customer allocation factors used in Union's cost of service study are Meter Call Time, Service Call Time, and Average Weighted Customers. The Call Time allocators are developed based on the number of calls by customer type and the average time spent on the call. This is a common method of determining an allocation factor for this type of cost element.

The Average Weighted Customers factor is developed by applying weights to the actual customer counts to ensure a proper allocation of costs. The weights currently used by Union are 1.0 for residential, 1.5 for commercial, and 2.0 for industrial. NCI understands that Union is currently reviewing the appropriateness of these weights.

### **Review of Demand-Related Costs**

Demand related distribution costs are primarily allocated to the classes on the basis of design day demand. The allocation factor, DistDemand, allocates costs in proportion to the peak day demand of firm and interruptible customers served by Union's gas distribution system, excluding customers served directly off its gas transmission lines. The use of a design day factor to allocate distribution demand costs is a generally accepted industry practice.

For the M2 rate class, the design day is determined for the class as a whole, and is then allocated to the residential and commercial/industrial sub-classes on the basis of winter volumes. This methodology results in approximately 56% of the class design day being assigned to the residential sub-class.

NCI tested the validity of this allocation method through the use of a regression analysis of sales per customer and heating degree-days using Union's 2003 and 2004 load data. Separate regression equations were developed for the residential, commercial, and industrial sub-groups to determine a base load factor and heat load factor for customers in these sub-groups. Using the results of these regression equations and Union's design



heating degree-days of 44, a calculated design day was determined for each of these three sub-groups, and for each of Union's two sub-classes.

Use of these regression results would have assigned approximately 57% of the M2 design day demand to the residential sub-class, which is extremely close to the 56% level derived by Union. In NCI's opinion, this analysis and the relative similarity of the annual load factors observed (see Table 3) for the various M2 sub-classes supports Union's allocation factor methodology for distribution demand costs.

Review of Union's cost of service study results did not show any material difference in the unit demand costs for the residential and commercial/industrial sub-classes. NCI's unit cost analysis derived a unit demand cost of \$1.7409 per m<sup>3</sup>d for the residential sub-class, and \$1.7453 per m<sup>3</sup>d for the commercial/industrial sub-class. The detailed calculations supporting these results are provided in Appendix F to this report.

### Key Observations

- NCI's review of Union's fully allocated cost of service study indicates that it follows standard industry practice in the functionalization, classification and allocation of the various plant and expense elements that comprise its total cost of service.
- Union's cost of service study shows material differences between the unit customer costs of the residential and commercial/industrial sub-classes within the M2 rate class. NCI's assessment of unit customer costs for the residential sub-class indicated a cost level of \$21.37 per month. Our assessment of the unit customer costs for the commercial and industrial sub-class indicated a cost level of \$67.93 per month. The detailed calculations supporting these results are provided in Appendix F.
- Given the material differences in unit customer costs between the residential and commercial/industrial sub-classes, and the single monthly charge applicable to all M2 customers, NCI concludes that there exists intra-class cross subsidies that need to be addressed through either a splitting of Union's M2 rate class and/or a redesign of its current rate structure.
- Union's methods for calculation of its Service Replacement and Station Replacement factors are appropriate and consistent with general industry practices. Given that Union, with each cost of service filing, also regularly updates its detailed methodology to reflect changes in size and length of services, and meter and regulators installed for the various classes, NCI believes that Union's allocation



factor development process provides an appropriate allocation of customer-related costs to the M2 rate class.

- Union's method of allocating distribution-related demand costs is consistent with general industry practice and its method of determining design day for the M2 sub-classes appears to be reasonable.
- Union's cost of service study shows no material differences between the unit demand costs of the residential and commercial/industrial sub-classes within the M2 rate class.

Table 5 provides a summary of NCI's derivation of the unit distribution customer and demand costs for the M2 rate class.

**TABLE 5**  
**Unit Distribution Customer and Demand Costs**

Rate M2 Sub-Class	Unit Customer Cost	Unit Demand Cost (m <sup>3</sup> d)
Residential	\$21.37	\$1.7409
Commercial/Industrial	\$67.93	\$1.7453
Total	\$25.71	\$1.7429



## VII. KEY FINDINGS AND IMPLICATIONS FOR UNION'S M2 RATE CLASS

The following section summarizes NCI's key findings from our review of Union's M2 rate class, and provides a foundational basis for assessing the various rate options available to address the issues raised in the Board's M2 Directive.

### Rates of Other Gas Utilities

- NCI's survey revealed that Union's inclusion of residential, commercial and industrial customers in a single rate schedule (i.e., not having a separate residential rate schedule) was not a unique approach in the North American gas utility industry. At the same time, however, our research indicated that the use of a single rate schedule to serve these customer groups was used by only a small number of the utilities NCI reviewed.

### Load Characteristics

- The monthly load profiles of the three M2 rate sub-classes (residential, commercial, and industrial) were very similar.
- There was a substantial difference in annual and monthly use per customer among the four sub-classes within the M2 rate class.
- The annual load factors for the residential, commercial, and industrial sub-classes were very similar, while the large industrial sub-class had a much higher load factor in 2003 and a load factor very similar to those of the other sub-classes in 2004.
- The range of annual load factors by consumption tier for the residential, commercial and industrial sub-classes were similar (NCI did not review the large industrial sub-class by tier due to the small number of customers in that sub-class). However, as Table 4 depicts, within each sub-class, there was a relatively wide range of annual load factors observed.
- For the three main sub-classes in Union's M2 rate class, there appears to be a direct correlation between the size of a customer and that customer's annual load factor.



## Cost Characteristics

- NCI's review of Union's fully allocated cost of service study indicates that it follows standard industry practice in the functionalization, classification and allocation of the various plant and expense elements that comprise its total cost of service.
- Union's cost of service study shows material differences between the unit customer costs of the residential and commercial/industrial sub-classes within the M2 rate class. NCI's assessment of unit customer costs for the residential sub-class indicated a cost level of \$21.37 per month. Our assessment of the unit customer costs for the commercial and industrial sub-class indicated a cost level of \$67.93 per month.
- Given the material differences in unit customer costs between the residential and commercial/industrial sub-classes, and the single monthly charge applicable to all M2 customers, NCI concludes that there exists intra-class cross subsidies that need to be addressed through either a splitting of Union's M2 rate class and/or a redesign of its current rate structure.
- Union's method for calculation of its Service Replacement and Station Replacement factors are appropriate and consistent with general industry practices. Given that Union, with each cost of service filing, also regularly updates its detailed methodology to reflect changes in size and length of services, and meter and regulators installed for the various classes, NCI believes that Union's allocation factor development process provides an appropriate allocation of customer-related costs to the M2 rate class.
- Union's method of allocating distribution-related demand costs is consistent with general industry practice and its method of determining design day for the M2 sub-classes appears to be reasonable.
- Union's cost of service study shows no material differences between the unit demand costs of the residential and commercial/industrial sub-classes within the M2 rate class.



## Implications for Union's M2 Rate Class

Based on NCI's findings in the three focus areas of this review, four (4) rate options available to Union were identified to address the objectives of the independent review delineated in the M2 Directive issued by the Board:

1. Maintain the status quo – no justification found for splitting the M2 rate class on a volumetric basis between small and large volume customers currently served under the rate. Indicate whether or not the existing rate structure, including block volume breakpoints, is appropriate.
2. Maintain the existing M2 rate class and develop separate “meter charges”<sup>19</sup> and/or rate re-blocking of existing delivery charges to address the existing intra-class cross subsidies.
3. Split the M2 rate class into a Residential class and a General Service class to address the existing intra-class cross subsidies.
4. Create a new Small General Service rate class (i.e., a new M1 rate class for residential, small commercial, and small industrial customers) and a new Large General Service rate class (i.e., a new M2 rate class for large commercial and large industrial customers), to address the existing intra-class cross subsidies within Union's current M2 rate class.

## Rate Option 1

This option was eliminated from further consideration because NCI does not believe the type of rate structure in Union's existing M2 rate class can adequately accommodate the diverse load and cost characteristics observed in this rate class. Specifically, it is NCI's opinion that a single rate class cannot adequately accommodate both the material differences in customer-related costs observed among the four sub-classes and the wide range of annual load factors within each sub-class, especially those within Union's industrial sub-class. While proper rate blocking could partially address the load factor issue, it would be very difficult to also address the differences in customer-related costs simply through rate re-blocking.

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<sup>19</sup> A “meter charge” is a separate monthly charge that recovers a utility's customer-related costs and is assessed to customers based on the particular size and type of gas meter installed at the customer's premises.





## Rate Option 2

This option was eliminated from further consideration because the diversity in size of customer, and the associated diversity in load factor among customers, within the M2 rate class could not adequately be addressed with this rate option. While separate “meter charges” would accommodate the material variation in customer-related costs observed among the sub-classes (caused by size differences), it would be extremely difficult to set the appropriate block breakpoints and related block charges to properly recover from customers the residual customer-related costs and the varying levels of demand-related costs caused by differences in load factor.<sup>20</sup>

## Rate Option 3

This option was eliminated from further consideration because it would not adequately address the heterogeneity (and associated intra-class cross subsidies) among commercial and industrial customers that would continue to exist within the new General Service class. Union’s load data indicated that there were numerous commercial and industrial customers that had very similar load characteristics to those of the residential sub-class. This situation strongly suggests that those commercial and industrial customers should be grouped with Union’s residential customers. However, Rate Option 3 would not enable this to occur.

In addition, this option was eliminated because of the initial major administrative burden, and ongoing administrative monitoring activities, that Union would have to assume to classify as Residential or General Service each of its approximately 923,000 customers served in the M2 rate class. Finally, NCI believes that relying on volume-based concepts rather than end-use based concepts to establish a utility’s rate classes is a more effective way to address intra-class cross subsidy issues within Union’s M2 rate class.

## Recommendation

NCI views Rate Option 4 as the most appropriate rate option for Union to consider for the following reasons:

1. It is best able to accommodate the diversity of customers in the M2 rate class (as measured by size and load factor) by first regrouping customers into two more homogeneous sub-groups (i.e., small general service and large general service).

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<sup>20</sup> Assuming the monthly “meter charges” were not designed to fully recover the indicated customer-related costs.



2. It provides Union with the strongest conceptual foundation for addressing on both a near-term and long-term basis the intra-class cross subsidies existing within its M2 rate class.
3. It best accommodates the variation in customer-related costs and annual load factors observed among the sub-classes within the M2 rate class.
4. It is consistent with the Board-approved rate class concept for residential and general service customers used by Union in its Northern and Eastern Operating Areas: Rate 01 – Small Volume General Firm Service and Rate 10 – Large Volume General Firm Service.
5. It continues Union’s reliance on volume-based rate classes rather than end-use based rate classes.
6. It avoids the administrative burdens associated with end-use tariffs previously identified under Rate Option 3.



## VIII. RECOMMENDED RATE OPTIONS

### Structural Underpinnings for Establishing Rate Classes and Rate Structure

With NCI's selection of Rate Option 4, to develop a rate design proposal for new Rate M1 – Small Volume General Service and new Rate M2 – Large Volume General Service, it was first necessary to establish:

1. A basis to split the current M2 rate class into new small and large rate classes;
2. A basis to re-classify Union's current Rate M2 customers into each new rate class;
3. A "revenue requirement" for each rate class; and
4. A cost basis for evaluating the level of customer and delivery charges for each new rate class.

Based on NCI's review of Union's load data<sup>21</sup> for its M2 rate class, we recommend that a volumetric breakpoint of 50,000 m<sup>3</sup> per year be established to split the current M2 rate class into new small and large rate classes. NCI chose this breakpoint level based on the following criteria:

- The annual use and average use per customer in each of the current Rate M2 sub-classes;
- The annual load factors by sub-class and by consumption tier in the M2 rate class; and
- The "rate switching" potential of customers between new Rate M1 and Rate M2.

Based on our assessment of how well these criteria were met by different volume breakpoints, both above and below 50,000 m<sup>3</sup> per year, we concluded that 50,000 m<sup>3</sup> level best satisfied these criteria. NCI's primary consideration in selecting a volume breakpoint was to establish two new rate classes that each exhibited more homogeneous load characteristics (indicating the existence of more similar cost characteristics) than under Union's current Rate M2. With the recommended breakpoint of 50,000 m<sup>3</sup>, there was less

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<sup>21</sup> To develop our specific rate design recommendations, NCI utilized Union's 2004 load data.



variation observed in the average use per customer and annual load factor statistics of each new rate class compared to those for the customers served in the current M2 rate class.

Table 6 presents a comparison of the annual use per customer levels in Union's current Rate M2 and in the new Rates M1 and M2. The Table also computes the use per customer in each sub-class relative to the class average level for each of the three rate classes. The results clearly demonstrate that there is significantly less variation between the use per customer of each sub-class and the average use per customer for the class under the new Rates M1 and M2 compared to under the current Rate M2. These results are depicted in the columns entitled, "Relative to Average." The fact that the sub-class amounts in these columns for the new rate classes converge compared to the amounts in the column for the current M2 class confirms that the two new rate classes are much more homogeneous compared to the level of homogeneity in Union's current Rate M2 class.

**TABLE 6**  
**Annual Use per Customer Comparison**

Sub-Class	Rate M2 (Current)	Relative to Average	Rate M1 (New)	Relative to Average	Rate M2 (New)	Relative to Average
Residential	2,580	0.60	2,575	0.84	117,902 <sup>22</sup>	0.69
Commercial	17,457	4.06	8,376	2.72	139,558	0.82
Industrial	75,873	17.66	13,742	4.47	257,005	1.50
Large Industrial	1,248,352	290.60	32,037	10.42	1,297,988	7.59
Class Average	4,296	1.00	3,074	1.00	171,094	1.00

A similar result was observed with the annual load factors of Rate M2. Chart 5 presents the annual load factors by consumption tier in Rate M2 with a vertical line inserted in the graph at an annual consumption level of 50,000 m<sup>3</sup>, which is equal to the recommended breakpoint between new Rates M1 and M2. Clearly, the load factors of new Rate M1 are quite similar over the entire range of consumption. This demonstrates that the customers represented by the consumption tiers to the left of the vertical red line constitute a much more homogeneous group compared to Union's current Rate M2 class.

<sup>22</sup> This may be an anomaly caused by misclassifications in the Banner system that has these customers coded as residential.

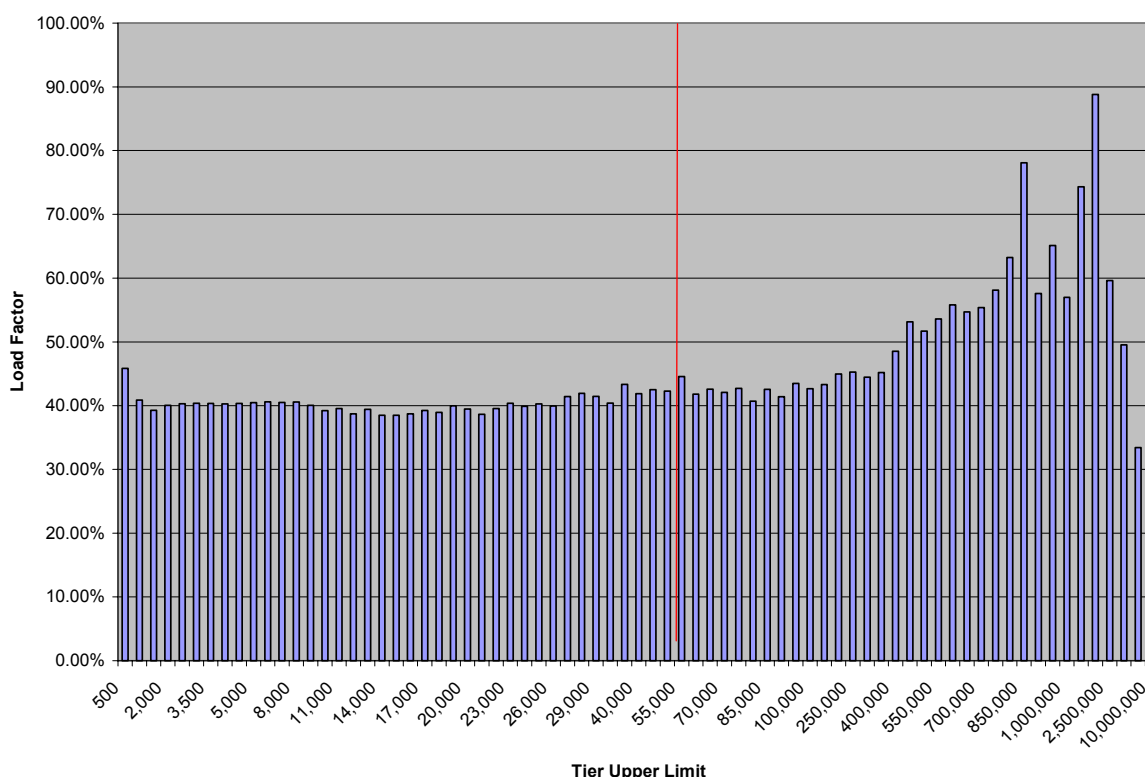


While the load factors of new Rate M2 progressively increase as consumption increases, the range of load factors of this class no longer is weighted by the relatively lower load factors, in the lower consumption ranges, that were previously an integral part of the Rate M2 class. This demonstrates that the customers represented by the consumption tiers to the right of the vertical red line constitute a much more homogeneous group compared to Union's current Rate M2 class. While this new customer group still exhibits a moderate degree of diversity (by virtue of its inherent composition), albeit at a reduced level compared to Union's current Rate M2 class, this condition can be accommodated through a combination of new rate blocking and the rate levels set by rate block.

Once again, this result confirms that the two new rate classes are much more homogeneous compared to the level of homogeneity in Union's current Rate M2 class.

# **CHART 5**

## **Rate M2 – Annual Load Factor by Consumption Tier**



The next step was to establish a basis to re-classify customers between new Rates M1 and M2. Using Union's bill frequency data for the Rate M2 sub-classes, NCI developed



individual bill frequencies for the residential, commercial, and industrial groups of customers using less than 50,000 m<sup>3</sup> per year, and bill frequencies for these same groups for customers using greater than 50,000 m<sup>3</sup> per year. These reconfigured bill frequencies provided us with the number of customers that would reside in each of the two new rate classes and their annual volumes and annual load factors. The breakdown of this information by new rate class is provided in Table 7.

**TABLE 7**  
**Customer Statistics – New Rate Classes<sup>23</sup>**

Customer Sub-Classes	Number of Customers	Annual Volume (10 <sup>3</sup> m <sup>3</sup> )	Annual Load Factor (%)
Residential	817,379	2,104,874	41%
Commercial	69,404	581,319	39%
Industrial	3,717	51,078	32%
Large Industrial	2	64	189%
Sub-Total - M1 Rate Class	890,502	2,737,335	40%
Residential	37	4,362	43%
Commercial	5,162	720,400	46%
Industrial	1,275	327,681	49%
Large Industrial	49	63,602	45%
Sub-Total – M2 Rate Class	6,523	1,116,045	47%
Grand Total	897,025	3,853,381	42%

Third, NCI developed a revenue requirement for the new M1 and M2 rate classes. The target level for this analysis was the most recently filed level of delivery revenues (excluding storage) for Union's M2 rate class, which was \$405,420,000. For each of the sub-classes in Table 7, NCI "priced out" the number of bills and level of volumes against Union's "study"<sup>24</sup> rates for the M2 rate class. This process, which is detailed in Appendix G to this report, derived a target revenue requirement for the new M1 and M2 rate classes as follows:

Rate M1 Target Delivery Revenue Requirement: \$351,914,000

Rate M2 Target Delivery Revenue Requirement: \$53,507,000

<sup>23</sup> NCI's analysis and supporting data used to compile this table was based on customers with a full 12-month billing history in 2004.

<sup>24</sup> For purposes of this review, the rates used by NCI to determine the target revenues were those filed by Union in RP-2003-0063.



Finally, NCI derived a cost basis for its evaluation of the level of customer and delivery charges for each new rate class from a simple reconfiguration of Union's fully allocated cost of service study results. This reconfiguration involved recalculating the customer-related replacement (capital-related) costs per customer to reflect the new mix of customers in each of the new rate classes.

As shown in Appendix H, for new Rates M1 and M2, NCI used the number of customers by sub-class to weight the customer-related replacement costs presented in Tables 8 and 9. This process resulted in a customer-related replacement cost of \$1,278 for Rate M1 and \$6,988 for Rate M2. By setting the Rate M1 cost at 1.00, the Rate M2 cost equated to a factor of 5.47 ( $\$6,988 / \$1,278$ ) relative to the Rate M2 cost level. This result was used by NCI as one basis to establish the recommended monthly charge for Rate M2 relative to the recommended monthly charge for Rate M1.

**TABLE 8**  
**Average Station Replacement Costs**

Rate M2 Sub-Class	Meter Cost	Regulator Cost	Installation Cost	Total
Residential	\$81.99	\$27.89	\$105.99	\$215.47
Commercial	\$751.32	\$299.32	\$643.16	\$1,693.80
Industrial	\$6,683.04	\$2,968.10	\$2,370.91	\$12,022.05
Large Comm./Ind.	N/A	N/A	N/A	\$27,131.11

**TABLE 9**  
**Average Service Replacement Costs**

Rate M2 Sub-Class	Service Costs
Residential	\$772.31
Commercial	\$2,075.40
Industrial	\$6,502.26
Large. Comm./Ind.	\$23,258.96

### **New Rate M1 – Small Volume General Service**

The first step in designing the rate structure for Rate M1 was to determine an appropriate level for the monthly charge. NCI reviewed Union's study rates and the unit cost results derived for Rate M1 customers. Without updated cost of service study results that reflected the recommended new rate classes, NCI was unable to definitively determine an



appropriate monthly charge for this new rate class. At the same time, however, we recognized that the majority of customers currently served under Rate M2 would be served under the new Rate M1 and that Union's cost of service study results for the M2 residential sub-group could support a monthly charge higher than \$14.00, which is the current monthly charge for the M2 rate class. Therefore, we concluded that it was appropriate for purposes of this review to maintain the monthly charge for Rate M1 at the current level of \$14.00. The balance of the target revenue requirement for Rate M1 was to be recovered through the recommended delivery charge(s).

The recommended delivery charges for Rate M1 were derived based on review of the load characteristics of the new M1 rate class, as summarized in Table 6, as well as the bill frequencies for the class as a whole and by sub-class. NCI's overall philosophy was to choose the number of rate blocks and the block breakpoints to separately accommodate the base load and heating loads of weather sensitive customers and to distribute the volumes across the rate blocks in a relatively equal manner. A three-block rate structure was selected so that the first block could accommodate the base load consumption of customers, the second block could accommodate the consumption of the average-sized customer, and the third block could accommodate the size diversity and heating load of customers. Table 10 demonstrates that a more equal distribution of volumes across the rate blocks was achieved in Rate M1 compared to the volume distribution in Union's current M2 rate class.

**TABLE 10**  
**Volume Distribution by Block – New Rate M1**

<b>Rate M2 Block Ending</b>	<b>Current Rate M2 Volume (10<sup>3</sup>m<sup>3</sup>)</b>	<b>Percent of Total</b>	<b>New Rate M1 Block Ending</b>	<b>New Rate M1 Volume (10<sup>3</sup>m<sup>3</sup>)</b>	<b>Percent of Total</b>
First 1,400 m <sup>3</sup>	2,708,299	70.3%	First 100 m <sup>3</sup>	1,039,458	38.0%
Next 4,600 m <sup>3</sup>	472,922	12.3%	Next 150 m <sup>3</sup>	1,032,006	37.7%
Next 124,000 m <sup>3</sup>	648,681	16.8%	Over 250 m <sup>3</sup>	665,871	24.3%
Next 270,000 m <sup>3</sup>	20,364	0.5%		N/A	
Over 400,000 m <sup>3</sup>	3,115	0.1%		N/A	
<b>Total</b>	<b>3,853,381</b>	<b>100.0%</b>		<b>2,737,164</b>	<b>100.0%</b>

The rate levels by rate block were established in recognition of the variation in load factor as the size of the customer increases and the average rate levels inherent in Union's existing Rate M2.





Based on these considerations, NCI recommends the following rate structure for Rate M1:

**TABLE 11**  
**New Rate M1 - Recommended Rate Structure**

<b>Rate Structure</b>	<b>Unit Rate ¢ per m<sup>3</sup></b>
Monthly Charge	\$14.00
First 100 m <sup>3</sup>	8.25
Next 150 m <sup>3</sup>	7.50
Over 250 m <sup>3</sup>	5.88

### **New Rate M2 – Large Volume General Service**

The first step in designing the new rate structure for Rate M2 was to determine an appropriate level for the monthly charge. NCI reviewed Union's study rates, the unit cost results derived for Rate M2 customers, and the recommended monthly charge NCI previously established for Rate M1 to make this determination. As discussed earlier, NCI observed that the customer-related replacement (capital-related) costs for new Rate M2 were approximately 5 times the level of the replacement costs for Rate M1. Based on these considerations, NCI recommends that the monthly charge for Rate M2 should notionally be set at \$70.00. The balance of the target revenue requirement for Rate M2 was to be recovered through the recommended delivery charges.

The recommended delivery charges for Rate M2 were derived based on review of the load characteristics of the new M2 rate class, as summarized in Table 6, as well as the bill frequencies for the class as a whole and by sub-class. NCI's overall philosophy for this rate class was to choose the number of rate blocks and the block breakpoints to distribute the volumes across the rate blocks in a relatively equal manner. Using a similar approach to its design of the Rate M1 rate structure, NCI selected a four-block rate structure to accommodate the wider variation in size and load factors among customers compared to the load characteristics of the M1 rate class. The rate levels by rate block were established in recognition of the variation in load factor as the size of the customer increases and the average rate level inherent in Union's existing Rate M2. Table 12 demonstrates the more



equal distribution of volumes across the rate blocks that was achieved in new Rate M2 compared to the volume distribution in Union's current M2 rate class.

**TABLE 12**  
**Volume Distribution by Block – New Rate M2**

M2 Block Ending	Current Rate M2 Volume (10 <sup>3</sup> m <sup>3</sup> )	Percent of Total	New Rate M2 Block Ending	New Rate M2 Volume (10 <sup>3</sup> m <sup>3</sup> )	Percent of Total
First 1,400 m <sup>3</sup>	2,708,299	70.3%	First 1,000 m <sup>3</sup>	82,190	7.4%
Next 4,600 m <sup>3</sup>	472,922	12.3%	Next 6,000 m <sup>3</sup>	409,047	36.7%
Next 124,000 m <sup>3</sup>	648,681	16.8%	Next 13,000 m <sup>3</sup>	310,185	27.8%
Next 270,000 m <sup>3</sup>	20,364	0.5%	Over 20,000 m <sup>3</sup>	314,624	28.2%
Over 400,000 m <sup>3</sup>	3,115	0.1%		N/A	
Total	3,853,381	100.0%		1,116,046	100.0%

Based on these considerations, NCI recommends the following rate structure for new Rate M2:

**TABLE 13**  
**New Rate M2 - Recommended Rate Structure**

Rate Structure	Unit Rate ¢ per m <sup>3</sup>
Monthly Charge	\$70.00
First 1,000 m <sup>3</sup>	5.70
Next 6,000 m <sup>3</sup>	5.10
Next 13,000 m <sup>3</sup>	4.03
Over 20,000 m <sup>3</sup>	3.17

### Preliminary Rate and Bill Comparisons

Compared to the study M2 rates, customers at the lower end of the monthly usage scale will see increases in their monthly bills under the proposed M1 rate. Customers at the higher end of the usage scale will see decreases in their monthly bills until the volume level



approaches the volumetric breakpoint (restated on a monthly basis) between the new M1 and M2 rate classes. Table 14 shows a comparison of monthly bills at various usage levels and Table 16 shows an annual bill comparison for a typical residential and commercial customer under Rate M1.

Customers in the new M2 rate class at the lower end of the monthly usage scale will see an increase in their monthly bills, mainly due to the recommended increase in the Monthly Charge. However, customers at the higher end of the usage range will see reduced bills up to a volume level of approximately 230,000 m<sup>3</sup> per month. Table 15 shows the bill impacts at various monthly usage levels and Table 16 shows an annual bill comparison for a typical industrial customer under new Rate M2.

**TABLE 14**  
**Monthly Bill Impacts – New Rate M1 versus Study Rate M2**

Monthly Usage Level (m <sup>3</sup> )	Rate M1 (Small General)	Rate M2 (Study)	Difference	Percent Difference
100	\$22.25	\$21.30	\$0.95	4.5%
250	\$33.50	\$32.24	\$1.26	3.9%
300	\$36.44	\$35.89	\$0.55	1.5%
500	\$48.20	\$50.48	\$(2.28)	(4.5%)
1,000	\$77.60	\$86.97	\$(9.37)	(10.8%)
1,400	\$101.12	\$116.15	\$(15.30)	(12.9%)
2,500	\$165.80	\$172.33	\$(6.53)	(3.8%)
4,000	\$254.00	\$248.95	\$5.05	2.0%

**TABLE 15**  
**Monthly Bill Impacts - New Rate M2 versus Study Rate M2**

Monthly Usage Level (m <sup>3</sup> )	Rate M2 (Large General)	Rate M2 (Study)	Difference	Percent Difference
6,000	\$382.00	\$351.10	\$30.90	8.8%
10,000	\$553.90	\$496.65	\$57.25	11.5%
50,000	\$1,680.30	\$1,952.17	\$(271.87)	(13.9%)
130,000	\$4,216.30	\$4,863.21	\$(646.91)	(13.3%)
400,000	\$12,775.30	\$11,845.41	\$929.89	7.9%



**TABLE 16**  
**Annual Bill Comparisons<sup>25</sup>**

<b>Customer</b>	<b>Annual Volume (m<sup>3</sup>)</b>	<b>Annual Bill at Study Rates</b>	<b>Annual Bill at Proposed Rates</b>	<b>Difference</b>	<b>Percent Difference</b>
Residential	2,600	\$357.70	\$359.95	\$2.25	0.6%
Commercial	17,000	\$1,292.97	\$1,225.20	\$(67.77)	(5.2%)
Industrial	82,000	\$4,406.19	\$4,929.77	\$523.58	11.9%

### Implementation of NCI's Recommendations

NCI's recommended new rate classes and associated rate structures presented above should be viewed as an initial step in the process of reconfiguring the M2 rate class and redesigning its rate structure. However, the scope of work for this rate review did not envision the development of a completely finalized rate proposal using the most current load and cost data available. Therefore, we fully expect that Union will be required to carefully review the feasibility, business implications, and specific data needs of our recommendations well in advance of finalizing any specific rate design proposal for submission to the Board.

For example, to implement our recommendations, it will first be necessary for Union to identify and "code" the specific customers to be served under new Rates M1 and M2. After this step is completed, Union will be required to compile the necessary detailed load data for a more recent time period (and on a forecasted basis) to construct bill frequency data for purposes of confirming our key findings, finalizing the level of monthly charges, setting final rate block breakpoints, and setting the associated rate block levels and differentials.

Union will have to evaluate the implications of NCI's recommendations on its billing systems (Banner and Contrax) to determine the types of programming modifications that would be required to accommodate these recommended rate changes, including the cost and timing of such modifications. In addition, Union will have to review the data systems used by various groups for the tracking of volumes and revenues.

It will also be necessary for Union to reconfigure its fully allocated cost of service study to accommodate the two new rate classes. In addition, Union may also desire to track

<sup>25</sup> Calculated using a monthly volume distribution for Union's typical customer in each class.



information that will allow it to derive new allocation factors that recognize the specific customer-related and demand-related costs of serving customers included in new Rates M1 and M2. Finally, Union's planning groups that provide information to support the cost allocation and rate design processes will have to assess the implications of NCI's recommendations on their support activities.

Besides the splitting of its current Rate M2 class, Union will have to review its other services (e.g., unbundled services) to determine if they will have to be split along similar lines, and the implications of such changes on its existing tariff structures, administrative processes, and other support activities. In addition, we expect that Union will have to review the administration of its general service Direct Purchase market to determine if there would be any impacts.

One of the rate options considered by NCI was to develop separate "meter charges" for the new M2 rate class. NCI has not recommended that Union pursue this course of action at this time due to the lack of detailed cost data on the specific sizes and types of meters installed at customers' premises. Without this information, the only way to establish and assess to customers such a charge would be on the basis of the end-use category of each customer (e.g., residential or commercial).

However, from the cost information available,<sup>26</sup> NCI believes it is likely there will continue to be a material variation in station and service costs among customers served under the new M2 rate class, and possibly under the new M1 rate class as well. NCI recommends that Union gather the necessary cost data on station replacement and service replacement costs that would enable it to develop separate meter charges based on the size and type of meter installed for customers in the new M1 and M2 rate classes. Given that the new M1 and M2 rate classes are more homogeneous than the current M2 rate class, achieving a more direct recovery of customer-related costs through separate meter charges will make the setting of the appropriate block breakpoints and block charges to recover the remaining costs a more straightforward process.

Finally, NCI expects that Union will have to reassess and finalize the bill comparisons presented above within the context of its next base rates proceeding to account for the expected changes in its overall revenue requirement.

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<sup>26</sup> See Tables 8 and 9.



## IX. POTENTIAL IMPACT ON OTHER UNION RATEMAKING ACTIVITIES

NCI assessed the impacts of its recommendation(s) for Union's M2 rate class on other rate-related considerations raised by Union in its RFP. Specifically, we addressed the impacts of our recommendation(s) on:

- Rate relativity and boundary issues (i.e., rate crossover issues) between Union's in-franchise rates in its Southern Operations Area; and
- Rate relativity issues between Union's general service rates in its Northern and Eastern Operations Areas.

### Rate Relativity – Southern Operations Area

Since NCI's recommended rate option is essentially "self-contained" (i.e., it primarily impacts only Union's Rate M2), we do not see any major issues with regard to rate relativity in the Southern Operations Area beyond the rate comparisons addressed previously. However, NCI fully expects that Union will continue to evaluate the periodic switching of customers between its Rate M2 and Rate M4 – Firm Industrial and Commercial Contract Rate, even though NCI's recommended rate option did not create this situation.

### Rate Relativity – Northern and Eastern Operations Areas

We understand that Union has in its Northern and Eastern Operations Areas two separate rate classes to serve its residential and smaller general service customers: Rate 01 - Small Volume General Firm Service and Rate 10 - Large Volume General Firm Service. Rate 01 and Rate 10 have different Monthly Charges, different rate blocking, and different unit rates in those blocks. The volumetric breakpoint established between these two rate classes is 50,000 m<sup>3</sup> per year.

NCI believes that a general comparison of the rate structures of these two sets of rate classes is appropriate. While we have not made a close comparison of these two sets of rate classes as part of this review, we believe Union should evaluate the number of rate blocks, the relative level of monthly charges, and the relative level of delivery charges (i.e., the degree of decline in the block rates).

Given that the rate configurations for Rates 01 and 10 were established almost 17 years ago, over time the load characteristics of customers served in these classes have undoubtedly



changed and the mix of customers has changed, possibly creating the need to reassess the rate structures of these rate classes. We believe the types of analyses NCI has conducted as part of this review can be considered by Union to guide any future efforts to evaluate the continued appropriateness of those rate structures relative to the types of customers served under those rates.



## X. APPENDICES

Appendix A: Detailed Results of Gas Utility Tariff Review

Appendix B: M2 Rate Class – 2003 Customer Composition

Appendix C: M2 Rate Class – Volumes and Customers by Month

Appendix D: M2 Rate Class - Cumulative Volume by Sub-Class by Consumption Tier

Appendix E: M2 Rate Class – Annual Load Factors by Consumption Tier

Appendix F: M2 Rate Class – Detailed Cost of Service Study Results by Sub-Class

Appendix G: Determination of Small General Service and Large General Service  
Revenue Requirement

Appendix H: Determination of Customer Related Replacement Costs  
Weighting Factor





## Appendix A

### Detailed Results of Gas Utility Tariff Review

Name	Province /State	Residential	Multi-Family	General	Small General /Commercial	Medium General	Large General/Industrial
<b>Canadian Utilities</b>							
Union Gas Limited	Ontario	No		in Southern Area	in Northern Area		in Northern Area
ATCO Gas North & South	Alberta	No		< 8,000 GJ/yr			> 8,000 GJ/yr
Enbridge Gas Distribution	Ontario	Yes		No volume limit stated on Rt. 6	Annual volume at least 292 x specified max. daily volume of not less than 1,165 m <sup>3</sup>	Annual volume at least 183 x specified max. daily volume of not less than 1,865 m <sup>3</sup>	Min. Daily Volume at least 609,000 M <sup>3</sup> ; minimum annual volume at least 200,000,000 m <sup>3</sup> .
Gaz Metro	Quebec	No		No volume limit stated on D1		< 333 m <sup>3</sup> /day w/ LF GT 50%	> 10,000 m <sup>3</sup> /day w/ LF GT 50%
Enbridge - Gazifere	Quebec	Yes		Yes	300 m <sup>3</sup> > day < 2,800 m <sup>3</sup> w/ LF GT 50%	2,800 m <sup>3</sup> > day < 28,000 m <sup>3</sup> w/ LF GT 50%	28,000 m <sup>3</sup> > day < 280,000 m <sup>3</sup> w/ LF GT 50%
Manitoba Hydro	Manitoba	Yes			< 680,000 m <sup>3</sup> /yr		< 680,000 m <sup>3</sup> /yr
Pacific Northern Gas, Ltd.	British Columbia	Yes			Yes. Also have small industrial		
SaskEnergy	Saskatchewan	Yes			< 10,000 m <sup>3</sup> /yr (Agricultural)	> 100,000 m <sup>3</sup> /yr	100,000 m <sup>3</sup> > Annual < 660,000 m <sup>3</sup>
Terasen Gas	British Columbia	Yes			< 2,000 GJ/yr		> 2,000 GJ/yr
<b>US Utilities</b>							
Aquila - Michigan Gas Utilities	Michigan	Yes	Yes		Yes		Yes
Aquila - Peoples Natural Gas	Colorado	Yes			Yes		Yes
Aquila - Utilicorp United	Kansas	Yes			< 500 Mcf/yr	< 5,000 Mcf/yr	> 5,000 Mcf/yr



Name	Large Volume	School	Annual Throughput (Bcf - unless otherwise specified)	Residential Customers	Commercial Customers	Industrial Customers	Total Customers
<b>Canadian Utilities</b>							
Union Gas Limited			36,418 10 <sup>6</sup> m <sup>3</sup>				1,224,000
ATCO Gas North & South							914,347
Enbridge Gas Distribution			6,326.8 10 <sup>6</sup> m <sup>3</sup>				1,700,000
Gaz Metro			5,789 10 <sup>6</sup> m <sup>3</sup>	104,055	47,129	5,489	156,673
Enbridge - Gazifere	> 280,000 m <sup>3</sup> / day w/ LF GT 50%						24,930
Manitoba Hydro	> 680,000 m <sup>3</sup> /yr		2,100 10 <sup>6</sup> m <sup>3</sup>	229,194	24,437	-	253,631
Pacific Northern Gas, Ltd.	Yes. Also have large industrial		38,971 TJ	34,242	4,993	56	39,291
SaskEnergy			137 PJ				325,619
Terasen Gas			193 Bcf				875,000
<b>US Utilities</b>							
Aquila - Michigan Gas Utilities			38,408				157,817
Aquila - Peoples Natural Gas			160,473				640,658
Aquila - Utilicorp United			160,473				640,658



Name	Comments
<b>Canadian Utilities</b>	
Union Gas Limited	
ATCO Gas North & South	
Enbridge Gas Distribution	
Gaz Metro	Total number of customers does not include 36000 customers in VT (Vermont Gas Systems)
Enbridge - Gazifere	
Manitoba Hydro	Higher customer charge for C & I
Pacific Northern Gas, Ltd.	
SaskEnergy	No volume limits stated on small vs. large
Terasen Gas	Higher customer charge for C & I
<b>US Utilities</b>	
Aquila - Michigan Gas Utilities	
Aquila - Peoples Natural Gas	Also has Public Housing rate schedule Throughput & customers for IA SD KS MN CO NE
Aquila - Utilicorp United	Customer charge varies with meter size Throughput & customers for IA SD KS MN CO NE



Name	Province /State	Residential	Multi-Family	General	Small General /Commercial	Medium General	Large General/Industrial
Aquila Networks	Nebraska	Yes			< 50 Mcf on peak		
Aquila Networks	Iowa	No		> 199 Dt on peak			
Aquila Networks - MPS & L&P	Missouri	Yes			< 500 Mcf/yr	500 Mcf > Annual < 4,000 Mcf	> 4,000 Mcf/yr
Aquila Networks - PNG & NMU	Minnesota	No		Covers Res.; Comm. & Ind.			
Atmos Energy	Colorado	No		Yes			
Atmos Energy	Virginia	Yes			< 6,750 Mcf/yr		> 6,750 Mcf/yr
Atmos Energy	Illinois	Yes			< 13,500 Mcf/yr		> 13,500 Mcf/yr
Atmos Energy	Iowa	Yes			<14,000 Dt/yr		>14,000 Dt/yr
Atmos Energy	Missouri	Yes			< 1,550 Mcf/mth		>1,550 Mcf/mth
Atmos Energy	Kansas	Yes		No volume limit stated			
Atmos Energy - Louisiana Gas Service	Louisiana	Yes			No volume limit stated		> 3,600 Mcf/yr
Atmos Energy - United Cities Gas	Georgia	Yes			< 10,000 Mcf/yr		> 10,000 Mcf/yr
Atmos Energy - United Cities Gas	Tennessee	Yes			< 13,500 Mcf/yr		
Atmos Energy - Western Kentucky Gas	Kentucky	No		Yes			



Name	Large Volume	School	Annual Throughput (Bcf - unless otherwise specified)	Residential Customers	Commercial Customers	Industrial Customers	Total Customers
Aquila Networks			160,473				640,658
Aquila Networks	> 200 Dt on peak		160,473				640,658
Aquila Networks - MPS & L&P			9,451				52,112
Aquila Networks - PNG & NMU			15,622				37,459
Atmos Energy			13,404				100,522
Atmos Energy	> 250 Mcf of daily demand		58,591				295,798
Atmos Energy			58,591				295,798
Atmos Energy			58,591				295,798
Atmos Energy			58,591				295,798
Atmos Energy		Yes	20,337				121,921
Atmos Energy - Louisiana Gas Service			51,358				357,964
Atmos Energy - United Cities Gas		Yes	58,591				295,798
Atmos Energy - United Cities Gas			58,591				295,798
Atmos Energy - Western Kentucky Gas	> 36,500 Mcf/year		45,695				176,085



Name	Comments
Aquila Networks	Throughput & customers for IA SD KS MN CO NE
Aquila Networks	Throughput & customers for IA SD KS MN CO NE
Aquila Networks - MPS & L&P	Residential covers up to 4 apartments. Also have multi-family rate election.
Aquila Networks - PNG & NMU	
Atmos Energy	
Atmos Energy	Throughput & customers for MO IA GA IL TN VA
Atmos Energy	All rate schedules have transportation only option Throughput & customers for MO IA GA IL TN VA
Atmos Energy	Residential includes 2 family units Throughput & customers for MO IA GA IL TN VA
Atmos Energy	Residential includes up to 5 multi-family units and is segregated by heating and non-heating. Throughput & customers for MO IA GA IL TN VA
Atmos Energy	Residential covers up to 4 units. Also have small (> 1,000 Mcf/yr), medium (1,000 Mcf < Annual < 50,000 Mcf) and large (> 50,000 Mcf/yr) industrial rate schedules.
Atmos Energy - Louisiana Gas Service	
Atmos Energy - United Cities Gas	Throughput & customers for MO IA GA IL TN VA
Atmos Energy - United Cities Gas	Small General meter charge dependent on meter size. Large General has overruncharge if MDCQ exceeded. Throughput & customers for MO IA GA IL TN VA
Atmos Energy - Western Kentucky Gas	General meter charge dependent on annual use



Name	Province /State	Residential	Multi-Family	General	Small General /Commercial	Medium General	Large General/Industrial
Consumers Energy	Michigan	Yes	Yes		< 385 Mcf/yr	< 6,700 Mcf/yr	> 6,700 Mcf/yr
Dominion East Ohio	Ohio	No		No volume limit stated			No volume limit stated
Energy East - Connecticut Natural Gas	Connecticut	Yes	< 6 units		< 500 Mcf/yr	500 Mcf > Annual < 3,000 Mcf	> 3,000 Mcf/yr
Energy East - New York State Electric & Gas	New York	Yes			< 400 Dt/yr		> 400 Dt/yr
Energy East - Rochester Gas & Electric	New York	No		No volume limit stated			
Illinois Power Company	Illinois	Yes			< 20 Dt/day	20 Dt > Day < 100 Dt	> 100 Dt/day
Michigan Consolidated Gas Co.	Michigan	Yes	Yes	No volume limit stated	< 100 Dt/yr		
National Fuel Gas	Pennsylvania	Yes			< 1,000 Mcf/yr		> 1,000 Mcf/yr



Name	Large Volume	School	Annual Throughput (Bcf - unless otherwise specified)	Residential Customers	Commercial Customers	Industrial Customers	Total Customers
Consumers Energy			372,721	1,550,989	110,000	10,000	1,670,989
Dominion East Ohio			271,392				1,215,966
Energy East - Connecticut Natural Gas			30,902				150,946
Energy East - New York State Electric & Gas	For industrial manufacturing or processing purposes		61,242				252,691
Energy East - Rochester Gas & Electric	> 350 Dt/yr		54,160			483	291,686
Illinois Power Company			77,787				392,694
Michigan Consolidated Gas Co.	No volume limit stated	Yes	171,518	1,033,589	77,191	465	1,111,245
National Fuel Gas			152,886				735,360





Name	Comments
Consumers Energy	
Dominion East Ohio	
Energy East - Connecticut Natural Gas	Residential covers up to 4 units.
Energy East - New York State Electric & Gas	
Energy East - Rochester Gas & Electric	
Illinois Power Company	
Michigan Consolidated Gas Co.	Residential covers up to 4 units.
National Fuel Gas	While both Small and Large General have same volume limit, the company states that customers using less than 16,500 m <sup>3</sup> per year will pay less under Small General than Large General. Throughput & customers for both NY and PA



Name	Province /State	Residential	Multi-Family	General	Small General /Commercial	Medium General	Large General/Industrial
National Fuel Gas	New York	Yes		No volume limit stated			
Niagara Mohawk Power Corp.	New York	Yes			< 5,000 Dt/yr		> 5,000 Dt/yr
NICOR - Northern Illinois Gas Co.	Illinois	Yes			Yes		No volume stated but has MDCQ
ONEOK - Oklahoma Natural Gas Company	Oklahoma	Yes			< 150 Dt/yr	150 Dt > Annual < 5,000 Dt	5,000 Dt > Annual < 30,000 Dt
Questar Gas Company	Wyoming	No		< 1,250 Dt/day in winter		> 2,100 Dt/year; LF 40% or greater	
Questar Gas Company	Utah	No		< 1,250 Dt/day in winter		> 2,100 Dt/year; LF 40% or greater	
San Diego Gas & Electric Co.	California	Yes	Yes	Yes			
Southern California Gas Co.	California	Yes	Yes				
Southwest Gas Company	Nevada	Yes	Yes		< 5 Dt/avg. month	5 Dt > Avg. Month < 60 Dt	60 Dt > Avg. Month < 1,500 Dt
Southwest Gas Company	California	Yes	Yes	No volume limit stated			No volume limit stated
Southwest Gas Company	Arizona	Yes			< 60 Dt/avg. month	60 Dt > Avg. Month < 1,500 Dt	> 1,500 Dt/Avg. Month
Vectren North - Indiana Gas Co.	Indiana	Yes			< 50,000 Dt/yr; < 1,500 Dt/day		> 50,000 Dt/yr; > 1,500 Dt/day
Vectren South - So. Ind. Gas & Elec. Co.	Indiana	Yes			< 50,000 Dt/yr; < 1,500 Dt/day		> 50,000 Dt/yr; > 1,500 Dt/day
Wisconsin Gas Co.	Wisconsin	Yes			< 700 Dt/year	700 Dt > Annual < 2,400 Dt	2,400 Dt > Annual < 15,000 Dt
Xcel Energy - Public Service Co. of Colorado	Colorado	Yes		No volume limit stated			



Name	Large Volume	School	Annual Throughput (Bcf - unless otherwise specified)	Residential Customers	Commercial Customers	Industrial Customers	Total Customers
National Fuel Gas			152,886	445,861			735,360
Niagara Mohawk Power Corp.			150,055	446,024			556,869
NICOR - Northern Illinois Gas Co.	No volume stated but has demand charge		480,750			11,530	2,056,612
ONEOK - Oklahoma Natural Gas Company		Yes	179,151				780,547
Questar Gas Company			123,613				755,075
Questar Gas Company	<10,000 Dt/day in winter; LF 80% or greater		123,613				755,075
San Diego Gas & Electric Co.			115,236	765,704	29,146	18	794,868
Southern California Gas Co.			799,811	4,989,682	188,435	20,236	5,198,353
Southwest Gas Company			232,614				1,467,752
Southwest Gas Company			232,614				1,467,752
Southwest Gas Company			232,614				1,467,752
Vectren North - Indiana Gas Co.			67,040	488,420	46,932		536,221
Vectren South - So. Ind. Gas & Elec. Co.	> 1,000,000 Dt/yr		29,996				110,360
Wisconsin Gas Co.	See comments		78,518	512,429	47,660	1,649	561,738
Xcel Energy - Public Service Co. of Colorado			237,327				1,175,566

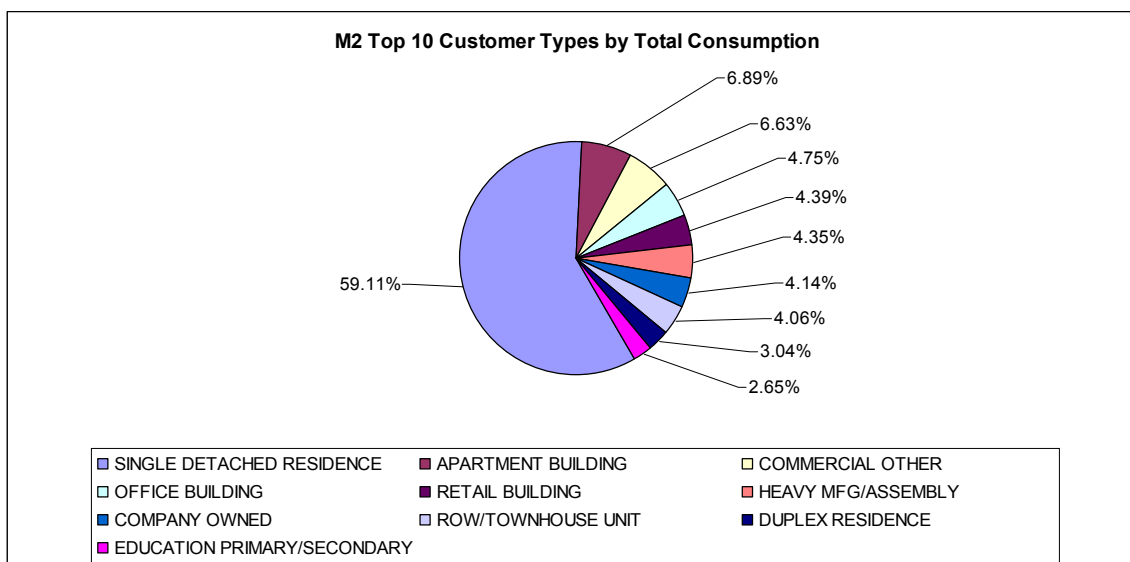
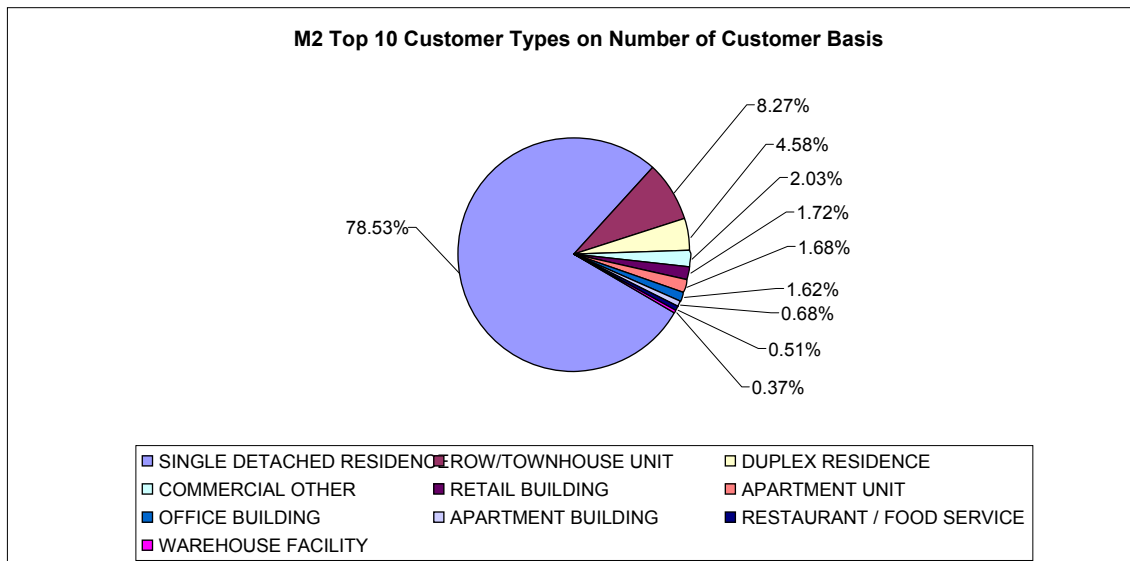


Name	Comments
National Fuel Gas	Throughput & customers for both NY and PA
Niagara Mohawk Power Corp.	Residential covers up to 6 units.
NICOR - Northern Illinois Gas Co.	
ONEOK - Oklahoma Natural Gas Company	
Questar Gas Company	Throughput & customers for ID WY & UT
Questar Gas Company	General Service has different customer charges for residential and non-residential service. Throughput & customers for ID WY & UT
San Diego Gas & Electric Co.	
Southern California Gas Co.	Area G has a General Service rate only which is applicable to residential and commercial customers. Area P's Small vs. Large break is 1,000 Mcf/yr. Area U has Small and Large General service but do not specify a volume limit.
Southwest Gas Company	Throughput & customers for AZ CA NV
Southwest Gas Company	Different customer and distribution charges for residential and commercial customers. Throughput & customers for AZ CA NV
Southwest Gas Company	Throughput & customers for AZ CA NV
Vectren North - Indiana Gas Co.	
Vectren South - So. Ind. Gas & Elec. Co.	Has four additional Commercial/Industrial classes with annual volume breaks at 250,000 Dt; 500,000 Dt; 1,000,000 Dt, and; over 1,000,000 Dt.
Wisconsin Gas Co.	Has transportation options for customers with annual loads over 5,000 therms.
Xcel Energy - Public Service Co. of Colorado	



## Appendix B

### M2 Rate Class - 2003 Customer Composition





## Appendix C

### M2 Rate Class - Volumes and Customers by Month

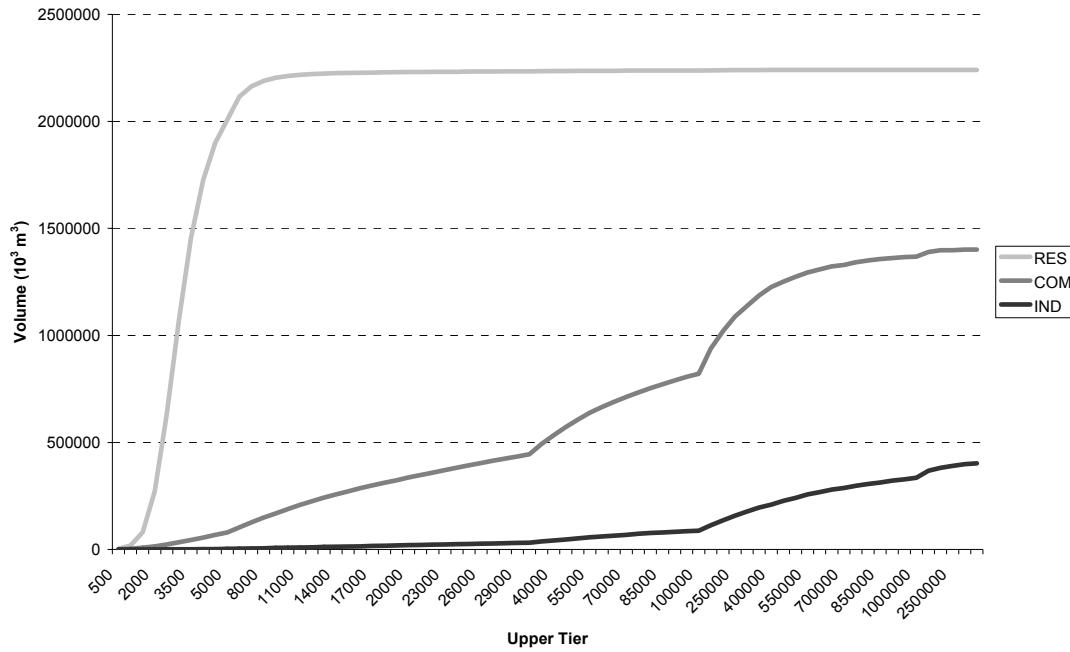
	TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
<b>Residential</b>													
2003 Volumes	2,240,827,992	388,389,995	402,256,775	359,966,532	240,525,635	148,585,872	88,151,879	57,124,248	49,044,672	48,535,036	81,295,822	152,488,156	224,463,370
2004 Volumes	2,109,236,499	377,661,106	407,934,461	290,592,624	238,745,294	139,590,645	73,054,181	56,862,844	52,571,437	52,192,562	67,935,270	137,158,511	214,937,564
2003 Customers	817,445	809,603	811,582	812,979	813,293	815,611	816,043	817,543	818,149	819,495	822,398	825,442	827,198
2004 Customers	840,312	830,453	831,847	834,793	836,278	838,703	838,501	840,884	841,813	844,027	845,240	848,882	852,323
Use/Cust 2003	2,748	480	496	443	296	182	108	70	60	59	99	185	271
Use/Cust 2004	2,518	455	490	348	285	166	87	68	62	62	80	162	252
<b>Commercial</b>													
2003 Volumes	1,401,035,551	226,853,443	240,892,191	221,769,989	149,372,693	95,451,755	54,426,867	30,312,320	27,770,732	37,429,552	58,729,736	109,151,206	148,875,067
2004 Volumes	1,301,718,223	218,065,698	243,094,338	174,870,734	145,322,603	88,172,575	42,838,664	29,834,559	30,147,329	38,660,755	50,623,451	98,811,734	141,275,783
2003 Customers	78,581	77,852	78,065	78,539	78,959	79,197	78,871	78,606	78,388	78,229	78,452	78,879	78,934
2004 Customers	77,804	79,698	79,377	77,892	77,822	77,755	77,447	77,239	76,947	76,897	77,044	77,568	77,963
Use/Cust 2003	17,847	2,914	3,086	2,824	1,892	1,205	690	386	354	478	749	1,384	1,886
Use/Cust 2004	16,622	2,736	3,063	2,245	1,867	1,134	553	386	392	503	657	1,274	1,812
<b>Industrial</b>													
2003 Volumes	401,750,026	59,173,939	66,092,080	60,076,994	40,333,608	26,295,898	17,462,869	12,953,477	12,119,002	13,012,698	19,938,252	31,920,304	42,370,905
2004 Volumes	378,759,677	56,441,586	65,522,381	48,130,182	39,828,377	24,906,684	15,850,149	13,898,298	12,568,439	14,488,974	17,722,868	29,921,348	39,480,391
2003 Customers	5,198	5,325	5,312	5,299	5,257	5,228	5,201	5,180	5,099	5,090	5,114	5,125	5,150
2004 Customers	5,249	5,263	5,268	5,267	5,253	5,279	5,263	5,234	5,224	5,210	5,207	5,250	5,271
Use/Cust 2003	76,740	11,112	12,442	11,337	7,672	5,030	3,358	2,501	2,377	2,557	3,899	6,228	8,227
Use/Cust 2004	72,047	10,724	12,438	9,138	7,582	4,718	3,012	2,655	2,406	2,781	3,404	5,699	7,490
<b>Large Industrial</b>													
2003 Volumes	60,918,112	6,265,154	5,265,080	4,576,338	6,920,407	4,514,179	3,214,109	2,846,128	2,705,105	3,923,534	5,610,196	6,685,122	8,392,760
2004 Volumes	63,665,970	11,986,302	7,994,813	6,854,858	4,864,283	3,097,393	2,527,076	3,120,447	3,098,140	3,251,633	4,124,317	6,153,850	6,592,859
2003 Customers	45	45	45	45	45	45	45	45	45	45	45	45	45
2004 Customers	51	51	51	51	51	51	51	51	51	51	51	51	51
Use/Cust 2003	1,353,736	139,226	117,002	101,696	153,787	100,315	71,425	63,247	60,113	87,190	124,671	148,558	186,506
Use/Cust 2004	1,248,352	235,026	156,761	134,409	95,378	60,733	49,551	61,185	60,748	63,758	80,869	120,664	129,272



## Appendix D

### M2 Rate Class - Cumulative Volume by Sub-Class by Consumption Tier

Cumulative Volume by Sub-Class by Tier 2003

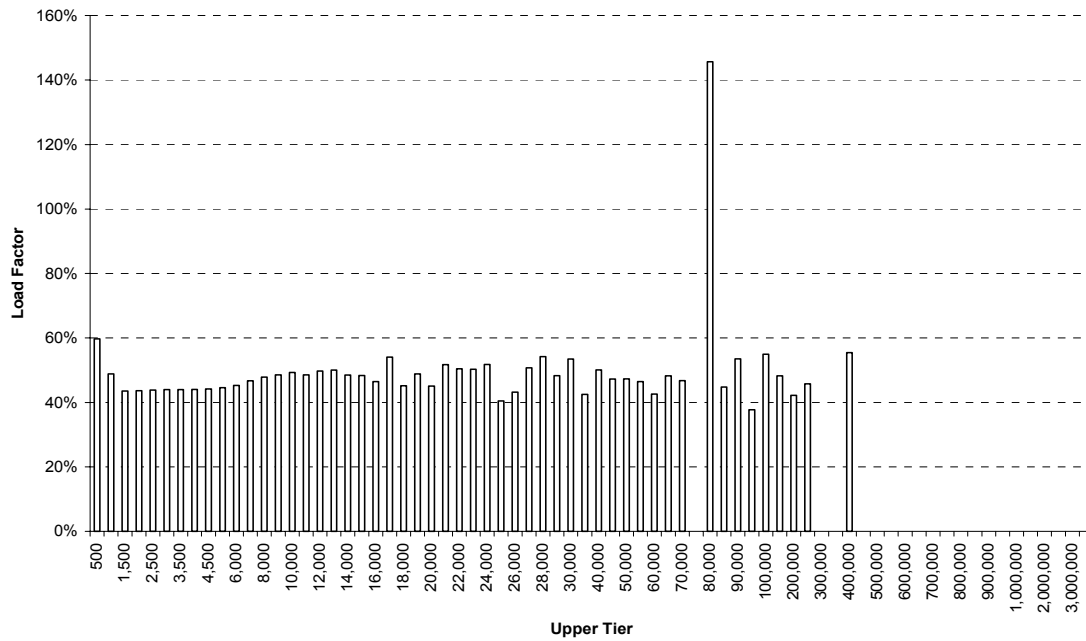




## Appendix E

### M2 Rate Class – Annual Load Factors by Volumetric Tier

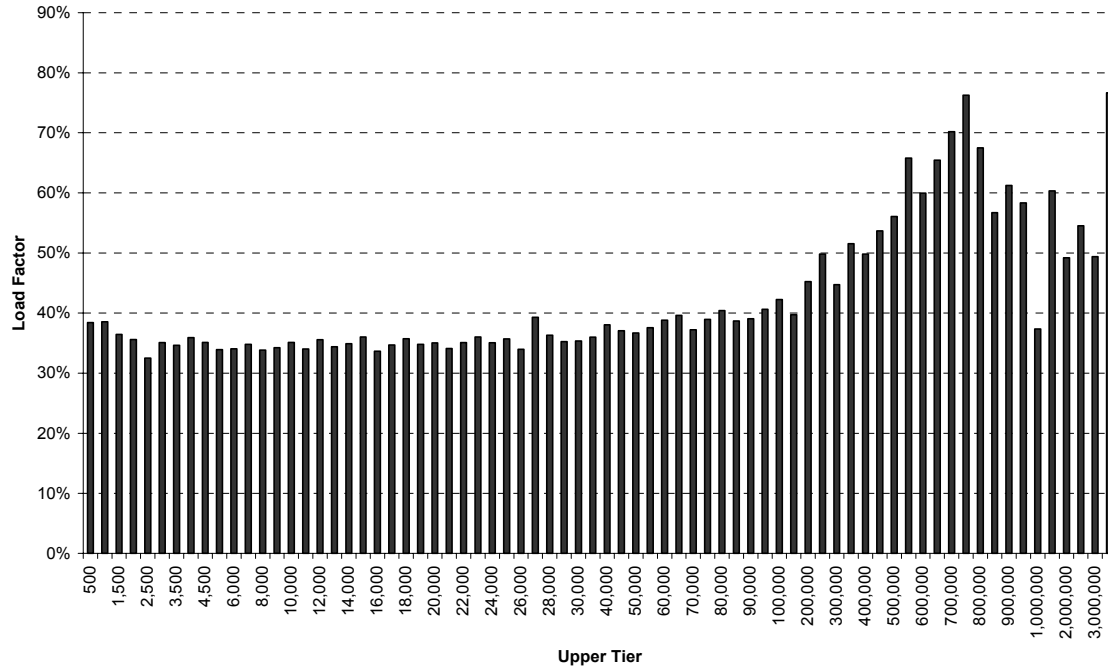
**2003 Residential Load Factor by Tier**





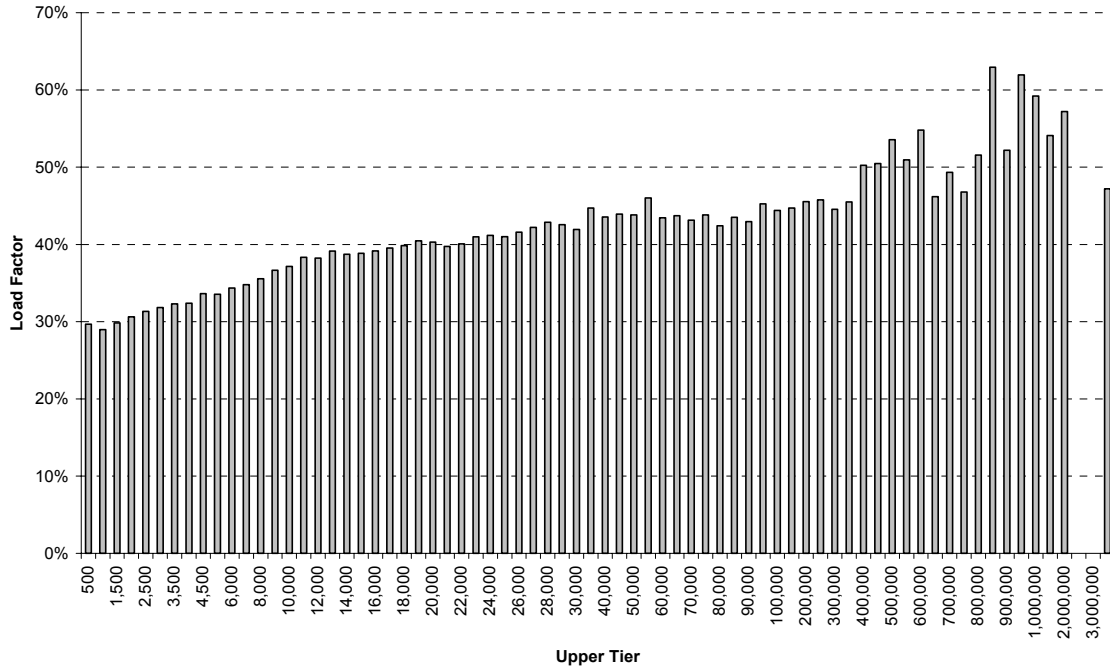


2003 Industrial Load Factor by Tier





2004 Commercial Load Factor by Tier





## Appendix F

### M2 Rate Class - Detailed Cost of Service Results by Sub-Class<sup>1</sup>

**Union Gas Limited**  
**Allocated M2 Costs - As Filed**

Line No.		Classification				Allocation Factor	
		Total	Allocation Factor	Demand	Customer	Demand	Customer
1	<b>Gross Plant</b>						
2	Distribution Sth. Ontario						
3	Land	\$4,095	Land&Struct	\$1,229	\$2,867	DistDemand	AveCustWtdUnion
4	Land Rights	\$4,258	Minplant	\$2,555	\$1,703	DistDemand	ServReplCosts
5	Mains	\$748,674	Minplant	\$449,204	\$299,470	DistDemand	ServReplCosts
6	Compressor Equipment	\$0		\$0			
7	M&R Joint	\$21,229	Direct	\$21,229		DistDemand	
8	M&R Sole	\$0		\$0			
9	Structures & Improvement	\$53,983	Land&Struct	\$16,195	\$37,788	DistDemand	AveCustWtdUnion
10	Services	\$689,385	Direct	\$0	\$689,385		ServReplCosts
11	Meters	\$156,134	Direct	\$0	\$156,134		StationReplCosts
12	Regulators	\$54,814	Direct	\$0	\$54,814		StationReplCosts
13	Customer Stations	\$42,763	Direct	\$0	\$42,763		StationReplCosts
14	Other	\$0		\$0	\$0		
15	Total Distribution Sth. Ontario	\$1,775,335		\$490,412	\$1,284,924		
16							
17	Total Distribution North Ontario	\$1,020,652		\$824,897	\$195,755		
18							
19	Intangible Plant	\$11,528	Distnorthern	\$9,317	\$2,211	DistDempt	Indir_I_Dist
20							
21	General Plant						
22	Land	\$857	Indir_I&II_Dist	\$219	\$367	DistDempt	Indir_I&II_Dist
23	Structures & Improvement	\$32,549	Indir_I&II_Dist	\$8,315	\$13,925	DistDempt	Indir_I&II_Dist
24	Furniture & Equipment	\$83,903	Indir_I&II_Dist	\$22,005	\$36,848	DistDempt	Indir_I&II_Dist
25	Transporation Equipment	\$44,650	Indir_I&II_Dist	\$13,428	\$22,486	DistDempt	Indir_I&II_Dist
26	Construction Equipment	\$40,759	Indir_I&II_Dist	\$11,357	\$19,017	DistDempt	Indir_I&II_Dist
27	Communciation Equipment	\$20,457	Indir_I&II_Dist	\$5,689	\$9,527	DistDempt	AveCustWtd
28	Rental Equip. on Cust. Premises	\$0		\$0	\$0		
29	Capital Leases	\$0		\$0	\$0		
30	Other	\$0		\$0	\$0		
31	Total General	\$223,175		\$61,013	\$102,170		
32							
33	Exploration and Development Costs	\$101		\$0	\$0		
34							
35	Total Gross Plant	\$3,030,791		\$1,385,639	\$1,585,060		
36							
37	<b>Accumulated Provisions</b>						
38	Distribution Sth. Ontario						
39	Land	\$0		\$0	\$0		
40	Land Rights	\$653	Minplant	\$392	\$261	DistDemand	ServReplCosts
41	Mains	\$253,931	Minplant	\$152,359	\$101,572	DistDemand	ServReplCosts
42	Compressor Equipment	\$0		\$0	\$0		
43	M&R Joint	\$9,202	Direct	\$9,202	\$0	DistDemand	
44	M&R Sole	\$0		\$0	\$0		
45	Structures & Improvement	\$37,954	Land&Struct	\$11,386	\$26,568	DistDemand	AveCustWtdUnion
46	Services	\$250,913	Direct	\$0	\$250,913		ServReplCosts
47	Mains	\$52,041	Direct	\$0	\$52,041		StationReplCosts
48	Regulators	\$18,273	Direct	\$0	\$18,273		StationReplCosts
49	Customer Stations	\$15,425	Direct	\$0	\$15,425		StationReplCosts
50	Other	\$0		\$0	\$0		
51	Total Distribution Sth. Ontario	\$638,392		\$173,339	\$465,053		
52							
53	Total Distribution North Ontario	\$352,953		\$288,192	\$64,762		
54							
55	Intangible Plant	\$8,074	Distnorthern	\$6,525	\$1,549	DistDempt	Indir_I_Dist
56							
57	General Plant						
58	Land	\$0	Indir_I&II_Dist	\$0	\$0		
59	Structures & Improvement	\$15,336	Indir_I&II_Dist	\$3,918	\$6,561	DistDempt	Indir_I&II_Dist
60	Furniture & Equipment	\$44,048	Indir_I&II_Dist	\$12,084	\$20,235	DistDempt	Indir_I&II_Dist
61	Transporation Equipment	\$11,499	Indir_I&II_Dist	\$3,458	\$5,791	DistDempt	Indir_I&II_Dist
62	Construction Equipment	\$15,168	Indir_I&II_Dist	\$4,177	\$6,995	DistDempt	Indir_I&II_Dist
63	Communciation Equipment	\$11,221	Indir_I&II_Dist	\$3,121	\$5,226	DistDempt	Indir_I&II_Dist
64	Rental Equip. on Cust. Premises	\$0		\$0	\$0		
65	Capital Leases	\$0		\$0	\$0		
66	Other	\$0		\$0	\$0		
67	Total General	\$97,272		\$26,758	\$44,808		
68							
69	Total Accum. Reserve	\$1,096,691		\$494,814	\$576,172		
70							
71	Total Net Plant	\$1,934,100		\$890,825	\$1,008,888		

<sup>1</sup> "Direct" means that a portion, or all, of the costs are directly assigned to either customer or demand.



**Union Gas Limited**  
**Allocated M2 Costs - As Filed**

Line No.		Classification				Allocation Factor	
		Total	Allocation Factor	Demand	Customer	Demand	Customer
1	<b><u>Working Capital</u></b>						
2	O&M Working Capital	\$12,894	Indir_II_Dist	\$2,493	\$6,670	DistO&Mexp-1	Indir_II_Dist
3	Gas Purchase Working Capital	\$1,059		\$0	\$0		
4	Gas in Storage	\$126,293		\$0	\$0		
5	Linepack	\$13,161	Direct	\$1,356	\$0	DistDemand	
6	Balancing Gas	\$129,321		\$0	\$0		
7	Inventory of Stores & Spare Equip.	\$25,830	Indir_I_Dist	\$7,338	\$8,173	DistDemand	Indir_I_Dist
8	Merch. Accts. Rec.	(\$41,404)		\$0	\$0		
9	Prepaid & Deferred Expl	\$7,487	Indir_I_Dist	\$2,259	\$2,516	DistDemand	Indir_I_Dist
10	Customer Deposits	(\$27,495)	Distbase	(\$13,104)	(\$14,371)	DistDemand	Indir_I_Dist
11	Mercap Investment	\$0		\$0	\$0		
12	Other	\$0		\$0	\$0		
13	Total Working Capital	\$247,146		\$342	\$2,988		
14							
15	Accum. Deferred Taxes	(\$240,778)	Dtbasedist	(\$25,008)	(\$62,023)	DistDemand	DistBase-3Union
16							
17	<b>Total Rate Base</b>	\$1,940,468		\$866,159	\$949,853		
18							
19	<b><u>Return &amp; Taxes</u></b>						
20	% Return on Rate Base	9.64%		9.64%	9.64%		
21	Return on Rate Base	\$294,786		\$83,475	\$91,540		
22	Income Taxes	\$68,437	Distbase	\$19,379	\$21,252	DistBase-1	DistBase-3
23	Capital Taxes	\$7,859	Distbase	\$2,225	\$2,440	DistBase-1	DistBase-3
24	Property Taxes	\$52,780	Distprotax	\$17,754	\$15,948	DistProTax-1	DistProTax-3
25	Total Return & Taxes	\$423,862		\$122,833	\$131,180		
26							
27	Accum. Deferred Tax Drawdown	(\$18,406)	Dtdrwon-Dist	(\$1,912)	(\$4,741)		
28							
29	<b><u>Expenses</u></b>						
30							
31	Depreciation						
32	Distribution Sth. Ontario	\$52,512		\$12,480	\$40,032		
33	Distribution Nth. Ontario	\$30,511		\$24,886	\$5,625		
34	Intangible	\$109		\$88	\$21		
35	General	\$24,669		\$6,639	\$11,117		
36	Total Depreciation	\$107,801		\$44,093	\$56,795		
37							
38	Distribution Sth. Ontario						
39	Operating						
40	Meter & Regulator Removal & Resetting	\$3,157	Direct	\$0	\$3,157		MeterCallTime
41	Meter Turn Ons & Offs	\$1,712	Direct	\$0	\$1,712		MeterCallTime
42	Service on Customer Premise	\$4,441	Direct	\$0	\$4,441		ServiceCallTime
43	Mains & Services	\$15,321	MinPlant	\$9,192	\$6,128	DistDemand	ServReplCosts
44	Leakage Survey	\$2	Land&Struct	\$1	\$2	DistDemand	ServReplCosts
45	Measuring & Regulating	\$1,030	Direct	\$1,030	\$0	DistDemand	
46	Other - Plant Service	\$50	Land&Struct	\$15	\$35	DistDemand	ServiceCallTime
47	Other - Customer Service	\$23	Land&Struct	\$7	\$16	DistDemand	ServiceCallTime
48	Total Operating	\$25,736		\$10,245	\$15,491		
49							
50	Maintenance						
51	Equip. on Cust. Premise	\$552	Direct	\$0	\$552		ServiceCallTime
52	Mains	\$4,976	DistM&Ssouth	\$1,554	\$3,426	DistDemand	ServReplCosts
53	Measuring & Regulating	\$668	Direct	\$668	\$0	DistDemand	
54	M&R Repair	\$1,060	Direct	\$0	\$1,060		RepairCosts
55	Other - Plant Service	\$126	Land&Struct	\$38	\$88	DistDemand	ServiceCallTime
56	Other - Customer Service	\$108	Land&Struct	\$32	\$75	DistDemand	ServiceCallTime
57	Other - Meter Shop	\$999	Land&Struct	\$300	\$699	DistDemand	ServiceCallTime
58	Total Maintenance	\$8,489		\$2,592	\$5,900		
59							
60	Total Distribution Sth. Ontario	\$34,225		\$12,837	\$21,391		
61							
62	Total Distribution Nth. Ontario	\$16,535		\$10,796	\$5,739		



**Union Gas Limited**  
**Allocated M2 Costs - As Filed**

Line No.		Classification			Allocation Factor	
		Total	Allocation Factor	Demand	Customer	Demand Customer
1	General Operating & Engineering					
2	System Operating & Engineering	\$39,565	DISTGO&E	\$4,342	\$16,921	DistDempt DistCustPt
3	Other	\$402	DISTGO&E	\$45	\$174	DistDempt DistCustPt
4	Scada	\$1,080	DISTGO&E	\$97	\$378	DistDempt DistCustPt
5	Total General Oper. & Engin.	\$41,047		\$4,484	\$17,473	
6						
7	Sales Promotion & Merchandise					
8	Sales Promotion Superv.	\$15,674	Salessuper	\$6,383	\$4,761	DistDemand DCustSalePro
9	Advertising	\$7,205	Direct	\$4,000	\$1,602	DSM DCustAdv
10	Displays, Dealer Serv., Other	\$438	Direct	\$0	\$438	DCustDisplay
11	Other	\$913	Direct	\$0	\$913	SalesReps
12	Total Sales	\$24,230		\$10,383	\$7,714	
13						
14	Distribution Customer Acct.					
15	Supervision	\$23,193	Direct	\$0	\$23,193	DistCustAcct
16	Meter Reading	\$10,128	Direct	\$0	\$10,128	AveCustWtd
17	Cust. Billing & Acct.	\$11,564	Direct	\$0	\$11,415	AveCustWtd
18	Credit & Collection	\$2,784	Direct	\$0	\$2,784	AveCustWtd
19	Uncollectible Accts.	\$13,300	Direct	\$0	\$4,111	BdDebt
20	Total Distribution Cust. Acct.	\$60,969		\$0	\$51,631	
21						
22	Administrative & General					
23	Administrative	\$74,242	DistO&M	\$14,493	\$39,961	DistO&Mexp-1 DistO&Mexp-3
24	Special Services	\$829	DistO&M	\$164	\$452	DistO&Mexp-1 DistO&Mexp-3
25	Insurance	\$7,485	DistO&M	\$1,480	\$4,081	DistO&Mexp-1 DistO&Mexp-3
26	Employee Benefits	\$39,876	DistLabor	\$8,520	\$20,498	DistLabor-1 DistLabor-3
27	Other A&G	\$1,700	DistO&M	\$336	\$927	DistO&Mexp-1 DistO&Mexp-3
28	Total Admin. & General	\$124,132		\$24,993	\$65,919	
29						
30	Total Expenses	\$408,939		\$107,586	\$226,662	
31						
32	Total Distribution Revenue Requirement	\$814,395		\$228,507	\$353,101	



**Union Gas Limited**  
**Allocated M2 Costs - As Filed**

Line No.		M2 Residential		M2 Comm/Ind		Total	
		Demand	Customer	Demand	Customer	Demand	Customer
1	<b>Gross Plant</b>						
2	Distribution Sth. Ontario						
3	Land	\$474	\$2,481	\$383	\$382	\$857	\$2,863
4	Land Rights	\$985	\$1,347	\$797	\$327	\$1,782	\$1,674
5	Mains	\$173,165	\$236,893	\$140,062	\$57,436	\$313,227	\$294,329
6	Compressor Equipment	\$0	\$0	\$0	\$0	\$0	\$0
7	M&R Joint	\$8,184	\$0	\$6,619	\$0	\$14,803	\$0
8	M&R Sole	\$0	\$0	\$0	\$0	\$0	\$0
9	Structures & Improvement	\$6,243	\$32,709	\$5,050	\$5,042	\$11,293	\$37,751
10	Services	\$0	\$545,332	\$0	\$132,219	\$0	\$677,551
11	Meters	\$0	\$46,402	\$0	\$101,297	\$0	\$147,699
12	Regulators	\$0	\$16,290	\$0	\$35,562	\$0	\$51,852
13	Customer Stations	\$0	\$12,709	\$0	\$27,744	\$0	\$40,453
14	Other	\$0	\$0	\$0	\$0	\$0	\$0
15	Total Distribution Sth. Ontario	\$189,051	\$894,163	\$152,911	\$360,009	\$341,962	\$1,254,172
16							
17	Total Distribution North Ontario	\$0	\$0	\$0	\$0	\$0	\$0
18							
19	Intangible Plant	\$1,339	\$1,304	\$1,083	\$535	\$2,422	\$1,839
20							
21	General Plant						
22	Land	\$31	\$220	\$25	\$74	\$56	\$294
23	Structures & Improvement	\$1,195	\$8,371	\$967	\$2,794	\$2,162	\$11,165
24	Furniture & Equipment	\$3,163	\$22,152	\$2,558	\$7,394	\$5,721	\$29,546
25	Transporation Equipment	\$1,930	\$13,518	\$1,561	\$4,512	\$3,491	\$18,030
26	Construction Equipment	\$1,632	\$11,433	\$1,320	\$3,816	\$2,952	\$15,249
27	Communciation Equipment	\$818	\$6,304	\$661	\$972	\$1,479	\$7,276
28	Rental Equip. on Cust. Premises	\$0	\$0	\$0	\$0	\$0	\$0
29	Capital Leases	\$0	\$0	\$0	\$0	\$0	\$0
30	Other	\$0	\$0	\$0	\$0	\$0	\$0
31	Total General	\$8,769	\$61,998	\$7,092	\$19,562	\$15,861	\$81,560
32							
33	Exploration and Development Costs						
34							
35	Total Gross Plant	\$199,159	\$957,465	\$161,086	\$380,106	\$360,245	\$1,337,571
36							
37	<b>Accumulated Provisions</b>						
38	Distribution Sth. Ontario						
39	Land	\$0	\$0	\$0	\$0	\$0	\$0
40	Land Rights	\$151	\$207	\$122	\$50	\$273	\$257
41	Mains	\$58,733	\$80,348	\$47,506	\$19,481	\$106,239	\$99,829
42	Compressor Equipment	\$0	\$0	\$0	\$0	\$0	\$0
43	M&R Joint	\$3,547	\$0	\$2,869	\$0	\$6,416	\$0
44	M&R Sole	\$0	\$0	\$0	\$0	\$0	\$0
45	Structures & Improvement	\$4,389	\$22,997	\$3,550	\$3,545	\$7,939	\$26,542
46	Services	\$0	\$198,482	\$0	\$48,123	\$0	\$246,605
47	Mains	\$0	\$15,466	\$0	\$33,763	\$0	\$49,229
48	Regulators	\$0	\$5,431	\$0	\$11,855	\$0	\$17,286
49	Customer Stations	\$0	\$4,584	\$0	\$10,007	\$0	\$14,591
50	Other	\$0	\$0	\$0	\$0	\$0	\$0
51	Total Distribution Sth. Ontario	\$66,820	\$327,515	\$54,047	\$126,824	\$120,867	\$454,339
52							
53	Total Distribution North Ontario	\$0	\$0	\$0	\$0	\$0	\$0
54							
55	Intangible Plant	\$938	\$914	\$759	\$375	\$1,697	\$1,289
56							
57	General Plant						
58	Land	\$0	\$0	\$0	\$0	\$0	\$0
59	Structures & Improvement	\$563	\$3,944	\$455	\$1,316	\$1,018	\$5,260
60	Furniture & Equipment	\$1,737	\$12,165	\$1,405	\$4,060	\$3,142	\$16,225
61	Transporation Equipment	\$497	\$3,481	\$402	\$1,162	\$899	\$4,643
62	Construction Equipment	\$600	\$4,205	\$486	\$1,404	\$1,086	\$5,609
63	Communciation Equipment	\$449	\$3,458	\$363	\$533	\$812	\$3,991
64	Rental Equip. on Cust. Premises	\$0	\$0	\$0	\$0	\$0	\$0
65	Capital Leases	\$0	\$0	\$0	\$0	\$0	\$0
66	Other	\$0	\$0	\$0	\$0	\$0	\$0
67	Total General	\$3,846	\$27,253	\$3,111	\$8,475	\$6,957	\$35,728
68							
69	Total Accum. Reserve	\$71,604	\$355,682	\$57,917	\$135,674	\$129,521	\$491,356
70							
71	Total Net Plant	\$127,555	\$601,783	\$103,169	\$244,432	\$230,724	\$846,215



**Union Gas Limited**  
**Allocated M2 Costs - As Filed**

Line No.		M2 Residential		M2 Comm/Ind		Total	
		Demand	Customer	Demand	Customer	Demand	Customer
1	<b><u>Working Capital</u></b>						
2	O&M Working Capital	\$603	\$4,085	\$491	\$1,062	\$1,094	\$5,147
3	Gas Purchase Working Capital	\$0	\$0	\$0	\$0	\$0	\$0
4	Gas in Storage	\$0	\$0	\$0	\$0	\$0	\$0
5	Linepack	\$17	\$0	\$14	\$0	\$31	\$0
6	Balancing Gas	\$0	\$0	\$0	\$0	\$0	\$0
7	Inventory of Stores & Spare Equip.	\$2,829	\$4,821	\$2,288	\$1,978	\$5,117	\$6,799
8	Merch. Accts. Rec.	\$0	\$0	\$0	\$0	\$0	\$0
9	Prepaid & Deferred Expl	\$871	\$1,484	\$704	\$609	\$1,575	\$2,093
10	Customer Deposits	(\$5,052)	(\$8,477)	(\$4,086)	(\$3,478)	(\$9,138)	(\$11,955)
11	Mercap Investment	\$0	\$0	\$0	\$0	\$0	\$0
12	Other	\$0	\$0	\$0	\$0	\$0	\$0
13	Total Working Capital	(\$732)	\$1,913	(\$589)	\$171	(\$1,321)	\$2,084
14							
15	Accum. Deferred Taxes	(\$9,640)	(\$43,075)	(\$7,798)	(\$17,453)	(\$17,438)	(\$60,528)
16							
17	<b>Total Rate Base</b>	<b>\$117,183</b>	<b>\$560,621</b>	<b>\$94,782</b>	<b>\$227,150</b>	<b>\$211,965</b>	<b>\$787,771</b>
18							
19	<b><u>Return &amp; Taxes</u></b>						
20	% Return on Rate Base	9.64%	9.64%	9.64%	9.64%		
21	Return on Rate Base	\$11,293	\$54,029	\$9,135	\$21,891	\$20,428	\$75,920
22	Income Taxes	\$2,622	\$12,543	\$2,121	\$5,082	\$4,743	\$17,625
23	Capital Taxes	\$301	\$1,440	\$244	\$584	\$545	\$2,024
24	Property Taxes	\$3,309	\$10,983	\$2,676	\$2,597	\$5,985	\$13,580
25	Total Return & Taxes	\$17,525	\$78,995	\$14,176	\$30,154	\$31,701	\$109,149
26							
27	Accum. Deferred Tax Drawdown	(\$737)	(\$3,293)	(\$596)	(\$1,334)	(\$1,333)	(\$4,627)
28							
29	<b><u>Expenses</u></b>						
30							
31	Depreciation						
32	Distribution Sth. Ontario	\$4,811	\$27,274	\$3,891	\$11,755	\$8,702	\$39,029
33	Distribution Nth. Ontario	\$0	\$0	\$0	\$0	\$0	\$0
34	Intangible	\$13	\$12	\$10	\$5	\$23	\$17
35	General	\$954	\$6,720	\$772	\$2,170	\$1,726	\$8,890
36	Total Depreciation	\$5,778	\$34,006	\$4,673	\$13,930	\$10,451	\$47,936
37							
38	Distribution Sth. Ontario						
39	Operating						
40	Meter & Regulator Removal & Resetting	\$0	\$2,489	\$0	\$669	\$0	\$3,158
41	Meter Turn Ons & Offs	\$0	\$1,349	\$0	\$363	\$0	\$1,712
42	Service on Customer Premise	\$0	\$2,932	\$0	\$1,509	\$0	\$4,441
43	Mains & Services	\$3,544	\$4,848	\$2,866	\$1,175	\$6,410	\$6,023
44	Leakage Survey	\$0	\$1	\$0	\$0	\$0	\$1
45	Measuring & Regulating	\$397	\$0	\$321	\$0	\$718	\$0
46	Other - Plant Service	\$6	\$23	\$5	\$12	\$11	\$35
47	Other - Customer Service	\$3	\$11	\$2	\$6	\$5	\$17
48	Total Operating	\$3,950	\$11,653	\$3,194	\$3,734	\$7,144	\$15,387
49							
50	Maintenance						
51	Equip. on Cust. Premise	\$0	\$365	\$0	\$188	\$0	\$553
52	Mains	\$599	\$2,707	\$485	\$656	\$1,084	\$3,363
53	Measuring & Regulating	\$257	\$0	\$208	\$0	\$465	\$0
54	M&R Repair	\$0	\$0	\$0	\$1,060	\$0	\$1,060
55	Other - Plant Service	\$15	\$58	\$12	\$30	\$27	\$88
56	Other - Customer Service	\$12	\$50	\$10	\$26	\$22	\$76
57	Other - Meter Shop	\$116	\$462	\$93	\$238	\$209	\$700
58	Total Maintenance	\$999	\$3,642	\$808	\$2,198	\$1,807	\$5,840
59							
60	Total Distribution Sth. Ontario	\$4,949	\$15,295	\$4,002	\$5,932	\$8,951	\$21,227
61							
62	Total Distribution Nth. Ontario	\$0	\$0	\$0	\$0	\$0	\$0



**Union Gas Limited**  
**Allocated M2 Costs - As Filed**

Line No.		M2 Residential		M2 Comm/Ind		Total	
		Demand	Customer	Demand	Customer	Demand	Customer
1	General Operating & Engineering						
2	System Operating & Engineering	\$624	\$10,218	\$505	\$4,114	\$1,129	\$14,332
3	Other	\$6	\$105	\$5	\$42	\$11	\$147
4	Scada	\$14	\$229	\$11	\$92	\$25	\$321
5	Total General Oper. & Engin.	\$644	\$10,552	\$521	\$4,248	\$1,165	\$14,800
6							
7	Sales Promotion & Merchandise						
8	Sales Promotion Superv.	\$2,461	\$2,147	\$1,990	\$599	\$4,451	\$2,746
9	Advertising	\$1,193	\$1,058	\$1,020	\$163	\$2,213	\$1,221
10	Displays, Dealer Serv., Other	\$0	\$289	\$0	\$45	\$0	\$334
11	Other	\$0	\$611	\$0	\$94	\$0	\$705
12	Total Sales	\$3,654	\$4,105	\$3,010	\$901	\$6,664	\$5,006
13							
14	Distribution Customer Acct.						
15	Supervision	\$0	\$15,347	\$0	\$2,366	\$0	\$17,713
16	Meter Reading	\$0	\$6,702	\$0	\$1,033	\$0	\$7,735
17	Cust. Billing & Acct.	\$0	\$7,323	\$0	\$1,154	\$0	\$8,477
18	Credit & Collection	\$0	\$1,842	\$0	\$284	\$0	\$2,126
19	Uncollectible Accts.	\$0	\$2,683	\$0	\$414	\$0	\$3,097
20	Total Distribution Cust. Acct.	\$0	\$33,897	\$0	\$5,251	\$0	\$39,148
21							
22	Administrative & General						
23	Administrative	\$3,507	\$24,473	\$2,855	\$6,364	\$6,362	\$30,837
24	Special Services	\$40	\$277	\$32	\$72	\$72	\$349
25	Insurance	\$358	\$2,499	\$292	\$650	\$650	\$3,149
26	Employee Benefits	\$2,131	\$12,363	\$1,727	\$3,487	\$3,858	\$15,850
27	Other A&G	\$81	\$568	\$66	\$148	\$147	\$716
28	Total Admin. & General	\$6,117	\$40,180	\$4,972	\$10,721	\$11,089	\$50,901
29							
30	Total Expenses	\$21,142	\$138,035	\$17,178	\$40,983	\$38,320	\$179,018
31							
32	Total Distribution Revenue Requirement	\$37,930	\$213,737	\$30,758	\$69,803	\$68,688	\$283,540
33							
34	<b><u>Number of Customers</u></b>						
35	Residential		833,305				833,305
36	Commercial				80,171		80,171
37	Industrial				5,409		5,409
38	Lrg. Industrial				53		53
39	Unit Cost (per Month)		\$21.37		\$67.93		\$25.71
40							
41	<b><u>Peak Day Demand (Design Day (10<sup>3</sup>m<sup>3</sup>))</u></b>	21,788		17,623		39,411	
42	Unit Cost	\$1.7409		\$1.7453		\$1.7429	
43							
44	<b><u>Annual Volumes (10<sup>3</sup>m<sup>3</sup>)</u></b>		2,151,649		1,839,911		
45	Commercial				1,373,193		
46	Industrial				399,557		
47	Lrg. Industrial				67,162		





# **Appendix G** **Determination of Small General Service and Large General Service Revenue Requirement**

				<u>Determinants</u>	<u>Charge</u>	<u>Revenue</u>
<b><u>M2 Study Rates per Union</u></b>						
Monthly Charge				11,038,168	\$14.00	\$154,534,352
Delivery Charge						
	Lower	Upper				
		0	1400	2,684,983	\$0.072965	\$195,909,785
		1401	6000	543,096	\$0.051075	\$27,738,628
		6001	130000	712,937	\$0.036388	\$25,942,352
		130001	400000	43,345	\$0.025860	\$1,120,902
		400001	Over	7,512	\$0.023246	\$174,624
				3,991,873		\$250,886,290
<b>Total M2 Revenue @ Study Rates</b>						\$405,420,642
<b><u>Total M2 @ Study Rates and 2004 Bill Frequency Volumes</u></b>						
Monthly Charge				10,764,300	\$14.00	\$150,700,200
Delivery Charge						
	Lower	Upper				
		0	1400	2,708,298,545	\$0.072965	\$197,611,003
		1401	6000	472,922,220	\$0.051075	\$24,154,502
		6001	130000	648,680,609	\$0.036388	\$23,604,190
		130001	400000	20,363,609	\$0.025860	\$526,603
		400001	Over	3,115,387	\$0.023246	\$72,420
				3,853,380,370		\$245,968,719
<b>Total M2 Revenue</b>						\$396,668,919



			<u>Determinants</u>	<u>Charge</u>	<u>Revenue</u>
<b><u>Small General Service Determinants @ Study Rates and 2004 Bill Frequency Volumes</u></b>					
Monthly Charge			10,686,024	\$14.00	\$149,604,336
Delivery Charge					
	Lower	Upper			
	0	1400	2,598,712,145	\$0.072965	\$189,615,032
	1401	6000	99,811,099	\$0.051075	\$5,097,852
	6001	130000	0	\$0.036388	\$0
	130001	400000	0	\$0.025860	\$0
	400001	Over	0	\$0.023246	\$0
			2,698,523,244		\$194,712,884
Total Small General Service Revenue					\$344,317,220
Small General Service prorated to filed revenue level					\$351,913,905
<b><u>Large General Service Revenue @ Study Rates and 2004 Bill Frequency Volumes</u></b>					
Monthly Charge			78,276	\$14.00	\$1,095,864
Delivery Charge					
	Lower	Upper			
	0	1400	109,586,400	\$0.072965	\$7,995,972
	1401	6000	373,111,121	\$0.051075	\$19,056,651
	6001	130000	648,680,609	\$0.036388	\$23,604,190
	130001	400000	20,363,609	\$0.025860	\$526,603
	400001	Over	3,115,387	\$0.023246	\$72,420
			1,154,857,127		\$51,255,835
Total Large General Service Revenue					\$52,351,699
Large General Service prorated to filed revenue level					\$53,506,737



# **Appendix H** **Determination of Customer-Related Replacement Costs** **Weighting Factor**

	No. of Small General Customers	Average Unit Cost	Total	Average	Percent of Total	Ratio to Res.
Residential	817,379	\$987.78	\$807,390,629			
Commercial	69,404	\$3,769.20	\$261,597,557			
Industrial	3,717	\$18,524.31	\$68,854,860			
Lrg. Indus.	<u>2</u>	\$50,390.07	<u>\$100,780</u>			
Total	890,502		\$1,137,943,826	\$1,278	96.15%	1.00

	No. of Large General Customers	Average Unit Cost	Total	Average	Percent of Total	Ratio to Res.
Residential	37	\$987.78	\$36,548			
Commercial	5,162	\$3,769.20	\$19,456,610			
Industrial	1,275	\$18,524.31	\$23,618,495			
Lrg. Indus.	<u>49</u>	\$50,390.07	<u>\$2,469,113</u>			
Total	6,523		\$45,580,767	\$6,988	3.85%	5.47
Total Small & Large General			\$1,183,524,593			

UNION GAS LIMITED

Answer to Interrogatory from  
Association of Power Producers of Ontario (“APPrO”)

Reference: Application Exhibit A, Tab 4

Preamble: Union is proposing to transition the customer’s delivery obligation to deliver volumes from Parkway to Dawn. Union indicates that:

*“With the exception of unbundled customers, this delivery obligation is required every day of the year unless otherwise agreed to by Union.”*

- a) Please list the rate classes that Union considers as unbundled for the above noted purpose.
- b) Union has in the past agreed to relax the requirement for Parkway deliveries during periods that Parkway deliveries were not required for direct purchase customers that are not unbundled. Given that these volumes will be transitioned to Dawn, the Dawn-Parkway transmission constraint will no longer exist as a constraint to require deliveries to Parkway. For those obligated volumes that have been moved to Dawn, please indicate if Union’s delivery policy would allow a semi-unbundled customer an automatic right to suspend a portion of its obligated volume on any day without further authorization from Union. For purposes of this question, the portion that a customer could opt to suspend is described in the equation below:

$$\text{Suspension Volume} = \text{Obligated Delivery Volume} + \text{Net Customer's Storage Withdrawals} - \text{Consumption}$$

Please explain your rationale.

---

**Response:**

- a) The only unbundled rate class with this delivery obligation is U2.
- b) No. Semi-unbundled customers (T1, T2, and T3) can request a suspension through the nominations process at any receipt point. This includes customers that have their entire delivery obligation at Dawn. The nomination is scheduled or not, based on Union’s storage and transportation system capability and the Priority of Service policy.

For system planning purposes, Union relies on obligated deliveries at all points, including Dawn, to help manage the overall storage and transmission system. The policies governing Direct Purchase balancing (including suspensions) can be found in Policy #: 07-DP-Auth-014:

Authorization of Interruptible Direct Purchase (DP) Balancing Transactions (available on Union's website at <http://www.uniongas.com/about-us/policies> ). No changes to this policy are proposed as part of this proposal.

UNION GAS LIMITED

Answer to Interrogatory from  
Association of Power Producers of Ontario ("APPrO")

Reference: Application Exhibit A, Tab 4, page 4, Table 1

Preamble: Union provides a schedule that illustrates the phasing out the Parkway obligated volumes based on capacity turnback. APPrO would like to better understand the nature of the capacity being turned back.

- a) For the volumes illustrated in line 3, does Union have firm commitments from these shippers to return this capacity to Union at the times indicated? Is there a risk that this capacity will not become available as illustrated? Please explain.
- b) In the event that the OEB does not approve the Brantford to Kirkwall Project (EB-2013-0074), or other expansion projects downstream of Parkway are not approved, how will the Parkway transition schedule be impacted?
- c) Union indicates that the transition to Dawn will be facilitated by infranchise customers turning back M12 capacity. In the event that such a customer was to opt not to turn their M12 capacity back to Union, please describe the implications to the transition plan in Table 1.
- d) In the event that not all volumes have been transitioned to Dawn by 2019 for reasons of less than expected capacity turnback, or new customers coming on the line during this transition period, what are Union's intentions to the balance of these volumes after 2019.
- e) How will future open seasons and demand for greater Dawn-Parkway capacity for exfranchise customers impact the proposed allocation of turnback capacity to transition the obligation to Dawn?

---

**Response:**

- a) Union does not have firm commitments from the Dawn to Kirkwall shippers that this turnback will occur. Given the changing flows within North America and specifically with the Niagara/Chippewa export point now being an import point (Union connects to TCPL at Kirkwall – the change in flows at Niagara and Chippewa results in changes in flows at Kirkwall on Union's system), Union expects that these contracts will be turned back. A delay in receiving the Dawn to Kirkwall turnback will delay any further transition beyond the initial 146 TJ/d.

- b) Please see the response at Exhibit B3.3.
- c) Please see the response at Exhibit B4.21 part b).
- d) As stated at Exhibit A, Tab 4, p. 6, line 14: “The options to eliminate the remaining 123 TJ/d of Parkway delivery obligation in 2019 and beyond will be evaluated at a later date, and Union will address this at its 2019 cost of service rebasing proceeding.” As well, unexpected turnback before 2019 or potentially unsubscribed capacity from a future build could be used to advance the transition to Dawn and reduce the delivery obligation.
- e) Increased demand for Dawn to Parkway capacity will not impact Union’s Parkway delivery obligation. Union is proposing to use any Dawn to Parkway turnback to offset requests for new Dawn to Parkway capacity and Union is proposing to re-purpose Dawn to Kirkwall turnback to eliminate the Parkway delivery obligation.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 1, pp.11-13; Tab 3, pp.1 to 4, Appendices A & B

This evidence deals with the implementation of certain rate schedule changes approved by the Board in the EB-2011-0210 Decision. The communication to customers at Appendix A indicates that the automatic transfer of certain customers from Rates M4 and M5A to the M7 Rate Class will result in bills remaining "relatively similar" to what they were before the mandated transfer. In connection with this evidence, please provide the following information:

- a) How many customers were affected by the automatic transfer from Rates M4 and M5A to the M7 Rate Class?
- b) What was the range of the impacts of that automatic transfer on those customers, and in particular, provide calculation of the impact on the most and least adversely affected customers, along with the impact on the average customer within the affected group?
- c) What advance written notice was provided to each of the affected customers showing the customer-specific impact of the pending transfer?

---

**Response:**

- a) Twenty customers, four Firm M4 and sixteen interruptible M5A were transitioned to M7 on January 1, 2014. Two of the M5A customers also had small firm base loads.
- b) Through the transition period, the sixteen interruptible M5A customers transitioning to M7 were held revenue neutral on the interruptible component of their contract through to the end of the current contract period. Prior to the next contract renewal, the price and other terms for the next subsequent contract term will be negotiated. Accordingly, there is no range of rate impact for the M5A customers through the transition period.

With respect to the four Firm M4 Rate customers and the firm component of the two M5A customers, the customers were transitioned using the existing firm contract demand re-priced at the Rate M7 firm rates. Attachment 1 shows the impacts.

- c) Advanced written notice of the rate class change were issued the week of July 15, 2013 by letter direct to the customer from Union accompanied by a supporting Q&A reference sheet. Sample copies are included at Exhibit A, Tab 3, Appendix A. Specific customer impacts were communicated directly by the Account Manager in individual meetings or discussions



subsequent to the mailing, primarily but not exclusively, and also during contract renewal discussions.

<b>Annual Bill Impact of Rate M4 and Rate M5A customers moving to Rate M7</b>					
Rate M4					
<u>Particulars (\$)</u>	<u>2014 Volume</u>	<u>2014 Delivery Bill as M4</u>	<u>2014 Delivery as M7</u>	<u>Impact</u>	<u>%</u>
	103 m3				
Customer 1	2,411	\$207,289	\$220,201	\$12,912	6.2%
Customer 2	13,000	\$345,672	\$341,941	-\$3,731	-1.1%
Customer 3	15,008	\$332,824	\$271,515	-\$61,309	-18.4%
Customer 4	18,105	\$542,721	\$539,387	-\$3,334	-0.6%
M5A					
<u>Particulars (\$)</u>	<u>2014 Volume</u>	<u>2014 Delivery Bill as M5A</u>	<u>2014 Delivery as M7</u>	<u>Impact</u>	<u>%</u>
Customer 1	36,712	\$675,888	\$675,888	\$0	0.0%
Customer 2	9,687	\$224,668	\$224,668	\$0	0.0%
Customer 3	11,367	\$262,196	\$262,196	\$0	0.0%
Customer 4	25,393	\$486,202	\$486,202	\$0	0.0%
Customer 5 *	5,468	\$162,131	\$132,037	-\$30,094	-18.6%
Customer 6	18,510	\$378,628	\$378,628	\$0	0.0%
Customer 7	11,708	\$248,715	\$248,715	\$0	0.0%
Customer 8	12,844	\$262,514	\$262,514	\$0	0.0%
Customer 9	21,079	\$430,471	\$430,471	\$0	0.0%
Customer 10 *	3,392	\$122,052	\$84,848	-\$37,204	-30.5%
Customer 11	3,879	\$94,929	\$94,929	\$0	0.0%
Customer 12	16,965	\$372,536	\$372,536	\$0	0.0%
Customer 13	11,347	\$257,925	\$257,925	\$0	0.0%
Customer 14	5,214	\$119,333	\$119,333	\$0	0.0%
Customer 15	10,579	\$228,916	\$228,916	\$0	0.0%
Customer 16	12,967	\$293,567	\$293,567	\$0	0.0%

\* = Firm Base

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 1, page 13

Union is proposing wording changes to sections of Rates M7, T1 and T2 to enable customers to reduce their costs for energy measuring equipment. In connection with this evidence:

- a) Please estimate the total cost reductions for Rates M7, T1 and T2 customers which Union regards as achievable under the auspices of this proposed rate schedule change.
  - b) Will any costs which Union currently incurs be reduced or eliminated as a result of this rate schedule change? If so, then please quantify the lengthy cost reduction?
  - c) Why was this proposed rate schedule change not included in Union's 2013 Rebasing case?
- 

**Response:**

- a) Energy measuring equipment (i.e. bottle samplers) is required for customers in the M7, T1 and T2 rate classes. With the change in the volume eligibility thresholds it is probable that more customers will be consuming within these rate thresholds. As the customer numbers increase, it is becoming more common to have customers situated in a location where they may share distribution pipeline laterals. Cost avoidance to customers is achieved by situating the bottle samplers in such a way that one sampler provides the measurement service for more than one customer downstream of the installation point. The rate schedule changes are being made to recognize that cost avoidance is possible going forward. A representative cost for a sampler unit is about \$4000.00.
- b) No, Union will not incur or eliminate costs as a result of this rate schedule change.
- c) The requirement that a sampler be located at each point of consumption became a matter of review only when planning for transitioning M4 and M5A customers, following the Board's EB-2011-0210 Decision.

UNION GAS LIMITED

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

What cost reductions, if any, likely to be realized by Union as a result of the proposed changes to General Terms and Conditions ("GT&C") and why were these proposed changes not made in the 2013 Rebasing proceeding?

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**Response:**

The proposed changes to Union's General Terms and Conditions ("GT&C") have no impact on costs. These changes were identified in a review of Union's contracts subsequent to the 2013 Rebasing proceeding.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, pp.1-46

CME wishes to understand the delivery/receipt point context in which direct purchasers currently operate. In this connection, please provide the following information:

- a) Please list all of the receipt points at which Union can accept delivery by direct purchasers of their gas to Union's distribution system.
- b) Do all direct purchasers have to commit to deliver their gas to one or more specific delivery/receipt points on Union's system?
- c) Does every direct purchaser have to deliver some of its gas to Parkway or are there some direct purchasers who have no Parkway delivery obligation? If so, then how many direct purchasers have no Parkway delivery obligation and what is their total Daily Contract Quantity ("DCQ")?
- d) Please describe the circumstances which gave rise to some direct purchasers having no Parkway delivery obligation.
- e) Are there some direct purchasers who are obligated to deliver 100% of their gas at Parkway? If so, how many customers are in this category, what is their total DCQ, and describe the circumstances which gave rise to this outcome?
- f) How many direct purchasers are obliged to deliver some of their gas at Parkway and the rest at Dawn or some other delivery/receipt point on Union's system? What is their total DCQ, and describe the circumstances which gave rise to this outcome?
- g) For direct purchasers delivering some but not all of their gas at Parkway, does the ratio of Parkway obligated deliveries to total deliveries vary widely? What is the range between the lowest and highest Parkway delivery obligation to total DCQ ratio for direct purchasers in this category?
- h) Please provide an exhibit which will show the customer-specific ratios of Parkway obligated deliveries to total customer-specific DCQ for each of the 388 contracts which will be subject to the proposed transition to eliminating Parkway obligated deliveries referenced at Exhibit A, Tab 4, p.29.
- i) In the end-state which will prevail when the Parkway obligation is eliminated, will all direct purchasers have the option of selecting one or more of delivery/receipt points at which to deliver their gas to Union's system? If so, then once they select those points, will they be

obliged to deliver their gas to those points for the duration of the gas delivery arrangements or will they be able to change to other delivery/receipt points with Union's consent?

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**Response:**

- a) Customers that move from sales service to direct purchase receive an allocation/assignment of Union's upstream transportation arrangements that reflect the transportation services used for them as sales service customers. These transportation arrangements were entered into by Union to source gas at different locations and deliver that gas to Union at its receipt points. As the upstream transportation arrangements expire or are turned back, direct purchase customers are able to replace those arrangements and deliver the gas directly to Union at the points where the original transportation brought gas onto the Union system (Dawn and/or Parkway).

Union's upstream transportation arrangements include:

- i. Panhandle/Trunkline – gas sourced in the Gulf of Mexico area and delivered to Union at Parkway through a combination of transportation arrangements on Panhandle and Trunkline (to Ojibway) with a 3<sup>rd</sup> party service to deliver the gas to Parkway. Customers take assignments of the underlying capacity and deliver the gas to Union's system at Parkway. When replaced, the receipt point remains Parkway.
- ii. TCPL (Western) – gas sourced in the Western Canada Sedimentary Basin ("WCSB") delivered to Union at Empress and transported to Parkway via TCPL. The receipt point in Union's direct purchase contracts is Empress and Union uses its contracts with TCPL to deliver the gas to Parkway. When replaced, the receipt point becomes Parkway.
- iii. Alliance/Vector – gas sourced in the WCSB and delivered to Union via the Alliance and Vector pipelines. The receipt point on Union's system for this gas is at Union's interconnect with the Vector pipeline at Dawn/Vector. Customers take an assignment of the underlying capacity and deliver the gas to Union's system at Dawn/Vector. When replaced, the receipt becomes Dawn.
- iv. Vector – gas sourced in the Chicago area and delivered to Union via the Vector pipeline. The receipt point on Union's system for this gas is at Union's interconnect with the Vector pipeline at Dawn/Vector. Customers take an assignment of the underlying capacity and deliver the gas to Union's system at Dawn/Vector. When replaced, the receipt point becomes Dawn.

Attachment 1 shows the direct purchase customers' obligated DCQ, the associated receipt points for those components, and the receipt points that result when the underlying transportation capacity expires or is turned back.

- b) Yes, all direct purchase customers are required to deliver gas to Union at one or more specific receipt points. These deliveries are obligated for all customers except one customer that met the requirements for a non-obligated DCQ.
- c) Attachment 1 provides a summary of the number of contracts and associated contracted quantities.
- d) Some direct purchase contracts only have a Dawn delivery obligation as a result of:
  - Customers located west of Dawn with new load can elect to have a Dawn delivery obligation.
  - Customers that took an allocation of Union's contracted FST capacity with TCPL when it was available several years ago.
- e) Yes, please see Attachment 1.

Contracts that were established for customers that moved from system to direct purchase before the implementation of the vertical slice would have initially received an allocation of upstream transportation on TCPL and an Empress DCQ obligation.

Small contracts that were established for customers that moved from system to direct purchase since the implementation of the vertical slice have had the option to receive an allocation of upstream transportation on TCPL and an Empress DCQ obligation for 100% of their DCQ (which as per Exhibit B7.4, a, ii) became a Parkway obligation).

In addition, customers located east of Dawn with new load would have received a Parkway DCQ obligation.

- f) Please see Attachment 1.

Contracts that were established for customers that moved from sales service to direct purchase since the implementation of the vertical slice would have received DCQ obligations at multiple points.

Contracts that were established for customers moving from sales service to direct purchase prior to the implementation of the vertical slice had an Empress/Parkway DCQ obligation as outlined in part e) above. If the customer subsequently had new load and was located west of Dawn, the customer had the option to receive a Dawn DCQ obligation for its new load.

- g) The ratio of Parkway DCQ to total DCQ ranges from 4% to 99%.

Contracts with a small ratio tend to be customers located east of Dawn that took an allocation of TCPL FST capacity (which no longer exists but delivered gas to Dawn) and subsequently experienced some growth (which was allocated at Parkway) or a customer located west of Dawn that initially received a 100% allocation of TCPL FT capacity (which delivered gas to Parkway) and subsequently experienced a lot of growth relative to their base load (which was allocated at Dawn).

Contracts with a large ratio tend to be with customers located west of Dawn that initially received a 100% allocation of TCPL FT capacity (which delivered gas to Parkway) and subsequently experienced a little growth in their base load (which was allocated at Dawn). In addition, accounts (end users or plant locations) moving between direct purchase contracts could impact DCQ splits depending on how the contract holders agreed to handle the reallocation of the DCQ between the affected direct purchase contracts.

- h) The 388 contracts referenced in evidence was the total number of direct purchase contracts less those that were subject to threshold treatment (i.e. 682-294). After removing the contracts that do not have a Parkway delivery obligation, there are 375 contracts with an obligated DCQ at Parkway that will need to be transitioned. Please see Attachment 2.
- i) Please refer to the responses at Exhibit B1.6 and Exhibit B2.18 part b).



Contract Count and DCQ Breakout

(GJ/day)

		Parkway				Dawn			
		Parkway			Empress	Dawn	Dawn-Vector		
	# of Contracts	Parkway	Panhandle	Trunkline	Western	Dawn	Alliance/ Vector	Vector	Total
Obligated:									
Parkway only	180	339,087							339,087
Multiple receipt points	489	204,799	393	237	19,228	188,333	12,700	2,848	428,538
Dawn only	11					41,142			41,142
Dawn only, Non-obligated volume*	1								
Contract in progress **	1								
Total	682	543,886	393	237	19,228	229,475	12,700	2,848	808,767

\* Non-obligated at Dawn for a customer with new/incremental load in excess of 1,200,000 m3/day (approx 45,900 GJ/d) located west of Dawn.

\*\* A contract in the process of being set up had been included in the total count.

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Total Obligated DCQ (GJ)</b>	<b>Ratio (Percent)</b>
1	358	387	93
2	183	183	100
3	101	101	100
4	127	127	100
5	180	180	100
6	3693	3693	100
7	450	450	100
8	2821	4012	70
9	134	156	86
10	187	187	100
11	103	126	82
12	572	572	100
13	447	447	100
14	893	1409	63
15	160	182	88
16	228	347	66
17	505	505	100
18	238	272	88
19	884	1530	58
20	245	279	88
21	138	178	78
22	667	1038	64
23	1088	1685	65
24	1171	1878	62
25	1075	1623	66
26	114	114	100
27	681	806	84
28	842	1374	61
29	1392	2392	58
30	1706	2979	57
31	2073	2834	73
32	283	283	100
33	114	114	100
34	628	628	100
35	145	209	69
36	472	472	100
37	308	308	100
38	115	115	100
39	161	161	100
40	119	119	100
41	935	1488	63
42	151	151	100

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Total Obligated DCQ (GJ)</b>	<b>Ratio (Percent)</b>
43	175	175	100
44	213	213	100
45	100	100	100
46	143	143	100
47	100	100	100
48	113	113	100
49	412	437	94
50	554	554	100
51	114	114	100
52	262	262	100
53	104	104	100
54	217	217	100
55	137	137	100
56	111	111	100
57	1304	4000	33
58	120	180	67
59	270	270	100
60	220	220	100
61	135	135	100
62	177	177	100
63	844	941	90
64	379	509	74
65	152	264	58
66	898	1389	65
67	106	106	100
68	724	955	76
69	239	239	100
70	145	145	100
71	321	321	100
72	322	322	100
73	147	147	100
74	147	147	100
75	179	185	97
76	217	217	100
77	150	150	100
78	137	137	100
79	1523	1526	100
80	136	136	100
81	111	111	100
82	218	220	99
83	1004	1148	87
84	199	297	67
85	117	221	53
86	140	140	100

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Total Obligated DCQ (GJ)</b>	<b>Ratio (Percent)</b>
87	142	194	73
88	255	255	100
89	128	128	100
90	168	168	100
91	122	122	100
92	157	157	100
93	222	430	52
94	142	142	100
95	107	186	58
96	131	193	68
97	325	383	85
98	114	222	51
99	139	269	52
100	404	517	78
101	124	255	49
102	129	190	68
103	130	130	100
104	131	298	44
105	151	232	65
106	156	239	65
107	125	125	100
108	147	147	100
109	100	100	100
110	156	276	57
111	155	272	57
112	244	389	63
113	543	832	65
114	218	443	49
115	130	130	100
116	106	198	54
117	102	202	50
118	275	485	57
119	120	120	100
120	157	284	55
121	117	117	100
122	202	392	52
123	1278	1278	100
124	160	210	76
125	240	240	100
126	261	510	51
127	118	118	100
128	303	303	100
129	886	886	100
130	141	265	53

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Total Obligated DCQ (GJ)</b>	<b>Ratio (Percent)</b>
131	101	119	85
132	326	529	62
133	132	132	100
134	131	131	100
135	549	608	90
136	298	332	90
137	363	363	100
138	137	137	100
139	190	190	100
140	141	141	100
141	185	440	42
142	141	141	100
143	325	325	100
144	267	267	100
145	210	210	100
146	415	415	100
147	128	128	100
148	291	291	100
149	178	178	100
150	561	561	100
151	434	434	100
152	388	388	100
153	291	291	100
154	406	406	100
155	151	151	100
156	101	101	100
157	200	200	100
158	352	717	49
159	180	180	100
160	353	543	65
161	187	187	100
162	389	389	100
163	380	500	76
164	316	316	100
165	400	400	100
166	154	154	100
167	131	132	99
168	230	230	100
169	112	112	100
170	202	202	100
171	414	414	100
172	164	164	100
173	251	251	100
174	277	277	100

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Total Obligated DCQ (GJ)</b>	<b>Ratio (Percent)</b>
175	829	829	100
176	237	237	100
177	2976	2976	100
178	335	335	100
179	738	738	100
180	140	140	100
181	277	277	100
182	840	840	100
183	570	570	100
184	350	350	100
185	822	822	100
186	131	131	100
187	351	351	100
188	225	225	100
189	627	627	100
190	155	155	100
191	401	401	100
192	310	310	100
193	189	189	100
194	539	539	100
195	339	339	100
196	569	569	100
197	281	281	100
198	200	200	100
199	230	500	46
200	479	479	100
201	377	377	100
202	140	240	58
203	120	165	73
204	295	570	52
205	293	450	65
206	117	117	100
207	239	239	100
208	1085	1239	88
209	125	125	100
210	133	133	100
211	387	387	100
212	126	126	100
213	229	229	100
214	705	705	100
215	635	635	100
216	622	1050	59
217	126	126	100
218	348	348	100

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Total Obligated DCQ (GJ)</b>	<b>Ratio (Percent)</b>
219	500	500	100
220	164	164	100
221	174	174	100
222	215	215	100
223	280	280	100
224	279	279	100
225	432	432	100
226	153	153	100
227	155	155	100
228	170	170	100
229	532	532	100
230	106	106	100
231	824	824	100
232	308	308	100
233	161	161	100
234	618	618	100
235	342	342	100
236	257	265	97
237	124	1000	12
238	200	200	100
239	140	140	100
240	191	244	78
241	961	961	100
242	110	110	100
243	145	156	93
244	329	943	35
245	2402	2402	100
246	1683	1751	96
247	3485	3485	100
248	833	833	100
249	204	204	100
250	1584	3744	42
251	541	650	83
252	207	1179	18
253	150	150	100
254	436	686	64
255	104	578	18
256	312	312	100
257	410	410	100
258	279	279	100
259	102	102	100
260	2700	2700	100
261	266	266	100
262	150	150	100

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Total Obligated DCQ (GJ)</b>	<b>Ratio (Percent)</b>
263	340	340	100
264	157	440	36
265	625	1002	62
266	269	269	100
267	110	110	100
268	383	383	100
269	9782	9842	99
270	180	180	100
271	470	601	78
272	162	500	32
273	540	540	100
274	101	101	100
275	162	162	100
276	213	213	100
277	240	240	100
278	280	280	100
279	195	282	69
280	384	384	100
281	1711	1711	100
282	193	332	58
283	100	140	71
284	228	300	76
285	380	380	100
286	120	260	46
287	461	461	100
288	180	180	100
289	168	260	65
290	182	182	100
291	121	280	43
292	145	206	70
293	170	220	77
294	150	279	54
295	157	450	35
296	233	450	52
297	193	193	100
298	385	385	100
299	135	135	100
300	104	200	52
301	100	250	40
302	225	225	100
303	119	125	95
304	350	495	71
305	180	220	82
306	300	300	100



<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Total Obligated DCQ (GJ)</b>	<b>Ratio (Percent)</b>
307	376	376	100
308	632	632	100
309	168	168	100
310	108	108	100
311	309	320	97
312	140	140	100
313	4309	4309	100
314	3030	3030	100
315	5649	5649	100
316	729	729	100
317	2063	2063	100
318	3225	3225	100
319	2502	2502	100
320	1168	1550	75
321	700	700	100
322	1241	1867	66
323	1000	1000	100
324	500	850	59
325	1695	2800	61
326	515	905	57
327	426	628	68
328	2087	2087	100
329	3573	3573	100
330	620	620	100
331	1126	1126	100
332	1519	1519	100
333	775	775	100
334	1085	1085	100
335	518	518	100
336	575	575	100
337	1410	1410	100
338	1300	1300	100
339	752	752	100
340	1140	1140	100
341	1134	1134	100
342	875	875	100
343	1370	1370	100
344	1042	1251	83
345	1900	1900	100
346	2126	2126	100
347	611	611	100
348	527	527	100
349	1383	1383	100
350	1124	1124	100

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Total Obligated DCQ (GJ)</b>	<b>Ratio (Percent)</b>
351	2518	2518	100
352	521	521	100
353	1127	1127	100
354	1300	1300	100
355	7500	7500	100
356	7065	43000	16
357	1264	26704	5
358	20645	20645	100
359	11559	11559	100
360	6850	6942	99
361	10541	43000	25
362	20182	69543	29
363	11693	16750	70
364	3200	5800	55
365	10443	18431	57
366	18200	18980	96
367	357	1500	24
368	2611	5882	44
369	50340	50340	100
370	4285	4285	100
371	132000	132000	100
372	2440	2440	100
373	32079	32079	100
374	5284	6961	76
375	989	1490	66
<b>Total</b>	<b>550009</b>	<b>747739</b>	<b>32815</b>

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, pp.21-3

We understand that Union is proposing to combine some existing temporarily surplus M12 capacity of 146 TJs/day with M12 Turnback capacity to support its proposed elimination of the Parkway delivery obligation for direct purchasers and that part of the Turnback forecast to occur over the period ending in 2018 will come from providing to in-franchise customers the option of turning back their M12 capacity in the same proportion as capacity is available to reduce the Parkway delivery obligation. The rate increase for in-franchise customers to achieve the initial 212 TJs/day of Parkway obligation reductions is expected to be between \$8.5M and \$9.0M. The evidence indicates that 146 TJs/day of this capacity, at a cost to ratepayers of \$6.1M, will not be available beyond October 31, 2015, but that Union nevertheless can manage and commits to manage the 146 TJs/day capacity shortfall for about two (2) years to 2017 "using an appropriate combination of resources." In connection with this evidence, please provide the following additional information:

- a) Particulars of each of the resources that will be combined to support the 146 TJs/day of reduced Parkway obligated deliveries which will be unsupported by M12 Turnback between October 31, 2015, and October 31, 2017, along with a detailed description of how those resources are to be combined and used to support 146 TJs/day of reduced Parkway obligated deliveries.
  - b) Estimates which Union has prepared to establish that it can manage this level of reduced Parkway obligated deliveries at a cost less than \$6.1M.
  - c) The lowest estimated cost at which Union can manage and enable reductions in Parkway obligated deliveries of 146 TJs/day without supporting M12 Turnback.
  - d) An estimate of the maximum amount of Parkway obligated delivery reductions which Union could manage with resources other than M12 Turnback.
  - e) An explanation of whether the combination of resources upon which Union will rely to manage Parkway obligated delivery reductions without supporting M12 Turnback currently exists, and if not, then why not?
  - f) Whether there will be any change in the amount proposed to be recovered from ratepayers in 2016 and 2017 when the "managed shortfall" is gradually replaced once again by M12 Turnback.
-

**Response:**

a) For the period of April 1, 2014 to October 31, 2015 Union has sufficient firm Dawn to Parkway transportation available to manage the 146 TJ/day of reduced Parkway delivery obligation. Commencing November 1, 2015, Union has options to continue to manage the shortfall:

1. Request early ex-franchise turnback of Dawn to Kirkwall contracts;
2. Manage the shortfall by purchasing a service from a third party; and
3. Allocate some portion of a future build that may not be completely sold out.

Union does not yet know what combination of the above options that it will use to provide 146 TJ/d of Dawn to Parkway service from November 1, 2015 and beyond.

b) Union does not know the cost of reducing the Parkway delivery obligation by 146 TJ/d from November 2015 and beyond. The \$6.1 million per year was calculated based on the Board-approved M12 Dawn to Parkway transportation rate to provide 146 TJ/d of service.

c) Please see the response to part b). On a long term basis, Union can only support the Parkway delivery obligation reductions based on the Dawn to Parkway M12 rate prevailing at the time.

d) Union is only proposing to manage the 146 TJ/d shortfall in Dawn to Parkway capacity for the period 2015 – 2018.

e) Please see the response to part a).

f) Yes. Please see Exhibit A, Tab 4, Schedule 11 for the proposed rate adjustments by rate class from January 1, 2015 to January 1, 2019.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, pp.21-3

Are there any in-franchise customers who take service under the auspices of the "bypass competitive" Billing Contract Demand ("BCD") rate introduced as a consequence of the Natural Gas Electricity Interface Review ("NGEIR") Decision? If so, then please provide the following information:

- a) How many customers are in this category?
- b) For each customer in this category, please indicate whether the transportation service from which the bypass competitive rate operates is a transportation service currently provided by TransCanada PipeLines Limited ("TCPL") or a transportation service provided by Union under the auspices of M12.
- c) If the transportation service from which the bypass competitive rate operates is one being provided by Union, then please confirm that the customer served under the auspices of this rate will not be able to turnback its M12 service from Union without the bypass competitive rate customer being obliged to forego its bypass competitive rate and to re-contract under the auspices of a full distribution service rate.

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**Response:**

- a) There is one customer that uses the Billing Contract Demand rate.
- b) The transportation service is provided by Union.
- c) No, the BCD rate is independent of the Parkway delivery obligation proposal. Assuming the BCD customer has an M12 contract to meet their Parkway delivery obligation, the customer will be able to turnback their M12 capacity as described in the Parkway delivery obligation proposal.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, pp.28-32

Does the Table below correctly illustrate the outcome of Union's proposed allocation of the total available Parkway obligated delivery reduction to direct purchasers with differing ratios of Parkway obligated deliveries to their DCQ? If not, then please revise the Table to show how the allocation method Union is proposing will affect such customers.

Customer	DCQ	Parkway Obligation	Allocation of a Parkway Obligation Reduction of 100 Units
A	100	100	50
B	100	75	37.5
C	100	50	25
D	100	25	12.5
	400	250	125

---

**Response:**

Under Union's proposal, contracts with a total Parkway DCQ less than 100 GJ/d will be able to shift 100% of their Parkway DCQ to Dawn as of the implementation date. Contracts with a total Parkway DCQ of 100 GJ/d or more will be subject to the proposed transition ratio of 36.1%.

The revised table is provided below.

Customer	DCQ	Parkway Obligation	Available Reduction
A	100	100	36
B	100	75	75
C	100	50	50
D	100	25	25
			186

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, pp.28-32

From the information to be provided in response to Question 4(g) above, please show how the 146 TJs/day of transition capacity shown in Figure 1 at Exhibit A, Tab 4, page 31 would be allocated to each of the 388 customers subject to the transition proposal. If Union's allocation proposal differs from the allocation method illustrated in the Table, then provide the results of applying each allocation method to the 388 customers subject to the transition proposal.

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**Response:**

Please see the response at Exhibit B7.4 part h). There are 375 direct purchase contracts subject to the 36.1% transition ratio, including those in-franchise customers holding an M12 contract for Dawn-Parkway transportation. Assuming all eligible customers elect the transition, including those with an M12 contract, a total of 197,992 GJ/d of transition capacity would be allocated. When added to the 13,735 GJ/d of capacity required to transition all "< 100 GJ/d contracts" results in a total of 212 TJ/d of transition as shown in Table 1 of Exhibit A, Tab 4, p. 4 and Figure 1 of Exhibit A, Tab 4, p. 31, in Step 2.

Please see Attachment 1 for the application of the transition ratio.

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Available Reduction @36.1%</b>
1	358	129
2	183	66
3	101	36
4	127	46
5	180	65
6	3,693	1,329
7	450	162
8	2,821	1,016
9	134	48
10	187	67
11	103	37
12	572	206
13	447	161
14	893	321
15	160	58
16	228	82
17	505	182
18	238	86
19	884	318
20	245	88
21	138	50
22	667	240
23	1,088	392
24	1,171	422
25	1,075	387
26	114	41
27	681	245
28	842	303
29	1,392	501
30	1,706	614
31	2,073	746
32	283	102
33	114	41
34	628	226
35	145	52
36	472	170
37	308	111
38	115	41
39	161	58
40	119	43
41	935	337
42	151	54
43	175	63



<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Available Reduction @36.1%</b>
44	213	77
45	100	36
46	143	51
47	100	36
48	113	41
49	412	148
50	554	199
51	114	41
52	262	94
53	104	37
54	217	78
55	137	49
56	111	40
57	1,304	469
58	120	43
59	270	97
60	220	79
61	135	49
62	177	64
63	844	304
64	379	136
65	152	55
66	898	323
67	106	38
68	724	261
69	239	86
70	145	52
71	321	116
72	322	116
73	147	53
74	147	53
75	179	64
76	217	78
77	150	54
78	137	49
79	1,523	548
80	136	49
81	111	40
82	218	78
83	1,004	361
84	199	72
85	117	42
86	140	50
87	142	51

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Available Reduction @36.1%</b>
88	255	92
89	128	46
90	168	60
91	122	44
92	157	57
93	222	80
94	142	51
95	107	39
96	131	47
97	325	117
98	114	41
99	139	50
100	404	145
101	124	45
102	129	46
103	130	47
104	131	47
105	151	54
106	156	56
107	125	45
108	147	53
109	100	36
110	156	56
111	155	56
112	244	88
113	543	195
114	218	78
115	130	47
116	106	38
117	102	37
118	275	99
119	120	43
120	157	57
121	117	42
122	202	73
123	1,278	460
124	160	58
125	240	86
126	261	94
127	118	42
128	303	109
129	886	319
130	141	51
131	101	36

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Available Reduction @36.1%</b>
132	326	117
133	132	48
134	131	47
135	549	198
136	298	107
137	363	131
138	137	49
139	190	68
140	141	51
141	185	67
142	141	51
143	325	117
144	267	96
145	210	76
146	415	149
147	128	46
148	291	105
149	178	64
150	561	202
151	434	156
152	388	140
153	291	105
154	406	146
155	151	54
156	101	36
157	200	72
158	352	127
159	180	65
160	353	127
161	187	67
162	389	140
163	380	137
164	316	114
165	400	144
166	154	55
167	131	47
168	230	83
169	112	40
170	202	73
171	414	149
172	164	59
173	251	90
174	277	100
175	829	298

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Available Reduction @36.1%</b>
176	237	85
177	2,976	1,071
178	335	121
179	738	266
180	140	50
181	277	100
182	840	302
183	570	205
184	350	126
185	822	296
186	131	47
187	351	126
188	225	81
189	627	226
190	155	56
191	401	144
192	310	112
193	189	68
194	539	194
195	339	122
196	569	205
197	281	101
198	200	72
199	230	83
200	479	172
201	377	136
202	140	50
203	120	43
204	295	106
205	293	105
206	117	42
207	239	86
208	1,085	391
209	125	45
210	133	48
211	387	139
212	126	45
213	229	82
214	705	254
215	635	229
216	622	224
217	126	45
218	348	125
219	500	180

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Available Reduction @36.1%</b>
220	164	59
221	174	63
222	215	77
223	280	101
224	279	100
225	432	156
226	153	55
227	155	56
228	170	61
229	532	192
230	106	38
231	824	297
232	308	111
233	161	58
234	618	222
235	342	123
236	257	93
237	124	45
238	200	72
239	140	50
240	191	69
241	961	346
242	110	40
243	145	52
244	329	118
245	2,402	865
246	1,683	606
247	3,485	1,255
248	833	300
249	204	73
250	1,584	570
251	541	195
252	207	75
253	150	54
254	436	157
255	104	37
256	312	112
257	410	148
258	279	100
259	102	37
260	2,700	972
261	266	96
262	150	54
263	340	122

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Available Reduction @36.1%</b>
264	157	57
265	625	225
266	269	97
267	110	40
268	383	138
269	9,782	3,522
270	180	65
271	470	169
272	162	58
273	540	194
274	101	36
275	162	58
276	213	77
277	240	86
278	280	101
279	195	70
280	384	138
281	1,711	616
282	193	69
283	100	36
284	228	82
285	380	137
286	120	43
287	461	166
288	180	65
289	168	60
290	182	66
291	121	44
292	145	52
293	170	61
294	150	54
295	157	57
296	233	84
297	193	69
298	385	139
299	135	49
300	104	37
301	100	36
302	225	81
303	119	43
304	350	126
305	180	65
306	300	108
307	376	135

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Available Reduction @36.1%</b>
308	632	228
309	168	60
310	108	39
311	309	111
312	140	50
313	4,309	1,551
314	3,030	1,091
315	5,649	2,034
316	729	262
317	2,063	743
318	3,225	1,161
319	2,502	901
320	1,168	420
321	700	252
322	1,241	447
323	1,000	360
324	500	180
325	1,695	610
326	515	185
327	426	153
328	2,087	751
329	3,573	1,286
330	620	223
331	1,126	405
332	1,519	547
333	775	279
334	1,085	391
335	518	186
336	575	207
337	1,410	508
338	1,300	468
339	752	271
340	1,140	410
341	1,134	408
342	875	315
343	1,370	493
344	1,042	375
345	1,900	684
346	2,126	765
347	611	220
348	527	190
349	1,383	498
350	1,124	405
351	2,518	906

<b>Contract</b>	<b>Parkway Obligation (GJ)</b>	<b>Available Reduction @36.1%</b>
352	521	188
353	1,127	406
354	1,300	468
355	7,500	2,700
356	7,065	2,543
357	1,264	455
358	20,645	7,432
359	11,559	4,161
360	6,850	2,466
361	10,541	3,795
362	20,182	7,266
363	11,693	4,209
364	3,200	1,152
365	10,443	3,759
366	18,200	6,552
367	357	129
368	2,611	940
369	50,340	18,122
370	4,285	1,543
371	132,000	47,520
372	2,440	878
373	32,079	11,548
374	5,284	1,902
375	989	356
	550,009	197,992
		13,735
		211,727

Capacity to transition 294 Contracts 100% to Dawn.

As per Exhibit A, Tab 4, p. 4, Table 1, line 7.



UNION GAS LIMITED

Answer to Interrogatory from  
Corporation of the City of Kitchener ("CCK")

Reference: Exhibit A, Tab 4, Page 2, lines 13 – 15 and footnote 1

- a) Please clarify and quantify the “historical allocation” of Union’s upstream transportation contracts used to determine delivery points on Union’s system for direct purchase and system gas customers?
  - b) Why does Union’s Parkway delivery obligation proposal exclude system sales deliveries to Parkway?
- 

**Response:**

- a) As described at Exhibit A, Tab 4, pp. 7-14, since the inception of direct purchase services in 1985, Union has facilitated requests for in-franchise sales service customers to switch to direct purchase services by allocating upstream transportation capacity previously used to serve them as sales service supplied customers. The cumulative effect of this allocation is captured in the response at Exhibit B7.4.
- b) Please see the response at Exhibit B1.9.

UNION GAS LIMITED

Answer to Interrogatory from  
Corporation of the City of Kitchener (“CCK”)

Reference: Exhibit A, Tab 4, Page 3, lines 17 – 22

- a) Please quantify the “gas supply cost to direct purchase customers” and the “delivery rate benefit of the obligation” to support this statement.

---

**Response:**

Please see the responses at Exhibit B4.12 and Exhibit B3.1.

UNION GAS LIMITED

Answer to Interrogatory from  
Corporation of the City of Kitchener ("CCK")

Reference: Exhibit A, Tab 4, Page 7, lines 4 – 8

- a) To achieve a more equitable treatment among direct purchase and system gas customers in Union South, why would Union not immediately shift some of the current direct purchase customer obligation to deliver at Parkway to its system gas customers, particularly as most system gas customers are served under Rates M1 / M2?

---

**Response:**

While shifting some of the direct purchase Parkway delivery obligation to sales service customers would create the same ratio of Dawn: Parkway obligated deliveries for both direct purchase and sales service customers, Union does not support such a shift, for the following reasons:

1. As described at Exhibit A, Tab 4, p. 7, direct purchase customers have benefitted from having TCPL capacity allocated to them in the past. Union considered rebalancing the upstream transportation allocations in 2000, at the time of introducing the Alliance and Vector capacity. Existing direct purchase customers objected at that time due to the higher costs and complexity as described further at Exhibit B2.9. As part of the RP-1999-0017 Settlement Agreement, direct purchase customers with TCPL capacity were grandfathered at Parkway at their request, leaving those customers with a higher proportion of the Parkway delivery obligation compared to sales service customers. As a result, sales service customers had to pay what were at the time the higher costs of accommodating this choice by direct purchase customers. Rebalancing is now a lower cost solution for direct purchase customers and would help lower the direct purchase portion of the Parkway delivery obligation that they fought to retain in 2000. To now seek to have the sales service portfolio relieve direct purchase customers of this obligation is neither fair nor appropriate. Instead, Union's proposal is to reduce, rather than shift the Parkway delivery obligation over time in a rational fashion. Further, any scenario that increases the sales service obligations at Parkway would cause incremental costs.
2. Any form of rebalancing the portfolio does not follow Union's criteria as outlined in Exhibit A, Tab 4, p. 20, of a complete transition to Dawn and therefore does not resolve the inequity between customers that currently exists. Union's proposal facilitates a shift of 36.1% to Dawn upon implementation and provides a plan for a complete transition. Using turnback to facilitate the direct purchase transition to Dawn over time is a rational approach. It redeploys existing Dawn to Kirkwall capacity that is expected as turnback and

reduces the likelihood of Union overbuilding Dawn to Parkway capacity. It also phases the transition in over time, which spreads the cost of rate increases out over time.

UNION GAS LIMITED

Answer to Interrogatory from  
Corporation of the City of Kitchener ("CCK")

Reference: Exhibit A, Tab 4, Page 10, lines 8 – 16

- a) Please quantify in GJ per day the gas delivered at Kirkwall for the system sales portfolio.
  - b) Please confirm that Kitchener, as a Union South in-franchise direct purchase customer, provides 100% of its obligated deliveries at Parkway?
- 

**Response:**

- a) Union purchases 21,101 GJ/day of gas at Niagara for sales service customers and transports that gas to Kirkwall using TPCL transportation capacity.
- b) Confirmed.

UNION GAS LIMITED

Answer to Interrogatory from  
Corporation of the City of Kitchener ("CCK")

Reference: Exhibit A, Tab 4, Page 20, lines 1 – 14  
Exhibit A, Tab 4, Page 44, line 13 to Page 46, line 3

- a) Please reconcile the first criteria of “a permanent solution at a known cost” [emphasis added] with Union’s proposed deferral account.
- b) Based on feedback from the POWG meetings, please explain why equitably rebalancing the delivery point obligations at Parkway for the system sales portfolio was not included in the criteria to guide the development of the implementation proposal?

---

**Response:**

- a) The costs to implement the proposal include cost recovery of the Dawn to Parkway system in rates. These costs have been quantified in the proposal (as \$8.5 to \$9.0 million per year starting January 1, 2015, as per Exhibit A, Tab 4, p.5, lines 14-15 and increasing by an additional \$6.7 million per year starting January 1, 2019 per Exhibit A, Tab 4, p. 6, lines 7-8). The proposed deferral account will be used to capture timing differences between the implementation of the proposal (April 1, 2014 for the first year) and the commencement of the rate recovery, being January 1, 2015 for the first year. The deferral account will also be used each year in the future to capture the timing differences between changes of additional capacity becoming available on November 1 of a subsequent year and the implementation of the rates changes which would occur two months later on January 1.
- b) Please see the response at Exhibit B8.3.

UNION GAS LIMITED

Answer to Interrogatory from  
Corporation of the City of Kitchener (“CCK”)

Reference: Exhibit A, Tab 4, Page 22, lines 11 – 16

- a) Please clarify and specify how Union will “...manage the shortfall using an appropriate combination of resources...” [emphasis added].

---

**Response:**

Please see the response at Exhibit B7.5.

UNION GAS LIMITED

Answer to Interrogatory from  
Corporation of the City of Kitchener ("CCK")

Reference: Exhibit A, Tab 4, Page 22, line 21 to Page 23, line 2

- a) What alternatives to a pro-rata reduction in the Parkway obligation for direct purchase customers, if any, did Union consider? Please explain fully.
- 

**Response:**

- a) Union considered alternatives to a pro-rata reduction including:
1. Allow direct purchase customers West of Dawn preferential access to turnback to reduce their Parkway delivery obligation ahead of those East of Dawn.
  2. Allow direct purchase customers with M12 capacity preferential access to transition to Dawn ahead of those who do not hold M12 capacity.

To guide Union in taking a fair approach, Union established the following criteria to guide the development of the transition implementation proposal:

1. Offers a permanent solution at a known cost;
2. Facilitates a complete transition of all direct purchase Parkway delivery obligations
3. Balances the desire to address the Parkway delivery obligation for direct purchase customers while ensuring a rational development of the Dawn-Parkway system;
4. Treats all direct purchase customers the same regardless of location, direct purchase service type, or rate class; and,
5. Stages the implementation over a number of years as capacity becomes available thereby managing rate impacts to all customers.

In an effort to be fair to all direct purchase customers, the pro-rata approach was selected. This was based on the criteria that were developed to guide the initiative.



UNION GAS LIMITED

Answer to Interrogatory from  
Corporation of the City of Kitchener ("CCK")

Reference: Exhibit A, Tab 4, Page 25, lines 2 – 3

a) When will the new capacity open season be held? Will it be binding or non-binding?

---

**Response:**

a) The new capacity open season was announced November 21, 2013. This open season was binding and closed on January 22, 2014. Please see the response at Exhibit B11.2.

UNION GAS LIMITED

Answer to Interrogatory from  
Corporation of the City of Kitchener ("CCK")

Reference: Exhibit A, Tab 4, Page 29, lines 5 – 15, including Table 2

- a) What alternatives to the proposed threshold mechanism of 100 GJ/d DCQ to fully transition a delivery obligation from Parkway to Dawn for such direct purchase contracts, if any, did Union consider? Please explain fully.

---

**Response:**

- a) Union did not consider any other methodologies. Union did consider different threshold levels for small contract quantities but found the recommendation of 100 GJ/d to be the most appropriate. As described at Exhibit A, Tab 4, p. 29, this threshold level allows approximately 43% of Union's direct purchase contracts, to shift all of their Parkway delivery obligation to Dawn, using less than 3% of the total required turnback capacity.

UNION GAS LIMITED

Answer to Interrogatory from  
Corporation of the City of Kitchener ("CCK")

Reference: Exhibit A, Tab 4, Page 31, Figure 1 and lines 4 – 7

- a) Please specify what “third party solutions” are? For example, would these include TCPL short haul FT from Dawn to Parkway? If so, what portion of the 380 TJ/d of obligated deliveries at Parkway, effective April 1, 2014, is being met by direct purchase customers using TCPL short haul as a “third party solution”?
- 

**Response:**

- a) Third party solutions include any option that is not Union’s M12 Dawn to Parkway transportation service held in the name of the direct purchase customer. These may include (but are not limited to):

- TransCanada transportation from Dawn to Union CDA
- TransCanada transportation from Empress to Union CDA
- Marketer provided transportation from Dawn to Parkway
- Marketer provided transportation from Empress to Parkway
- Marketer provided supply at Parkway

Union does not know how direct purchase customers meet the 380 TJ/d of the Parkway delivery obligation.

UNION GAS LIMITED

Answer to Interrogatory from  
Corporation of the City of Kitchener ("CCK")

Reference: Exhibit A, Tab 4, Page 45, lines 21 – 22 to Page 46, line 1

a) Please explain the proposed rationale to prorate the annual cost allocation impacts to reflect two months of cost for 2015 – 2018?

---

**Response:**

Union is proposing to prorate the calculation of the deferral account adjustments to reflect nine months of costs for 2014 and two months of costs for 2015 through 2018 to ensure the costs recovered/refunded from ratepayers reflect the cost allocation and rate impacts of Union's proposal at the same time the proposal takes effect.

For example, rates will be adjusted on January 1, 2015 to reflect the cost allocation impacts of Union's proposal to reduce the Parkway obligation by 212 TJ/d. However, Union is proposing to implement the changes described above on April 1, 2014 and recover the cost impacts in 2014 through a new deferral account.

In 2014, the annual cost allocation impacts to Union South in-franchise customers of Union's proposal to reduce the Parkway obligation by 212 TJ/d are approximately \$8.4 million, which includes \$2.4 million in costs associated with 66 TJ/d and \$6.1 million in costs associated with 146 TJ/d of temporarily available capacity. To recognize that Union's proposal will be implemented on April 1, 2014 rather than January 1, 2014, Union is proposing to prorate the annual 2014 costs of approximately \$8.4 million (\$2.4 million + \$6.1 million) by nine months to ensure the costs recovered/refunded through the deferral account reflect the implementation date of Union's proposal.

This approach will result in prorated cost allocation impacts of the Parkway delivery obligation reduction of approximately \$1.8 million associated with 66 TJ/d and \$4.5 million associated with the temporarily available capacity, for a total of \$6.5 million being recorded in the new deferral account for Union South in-franchise customers in 2014.

This approach will also be used from 2016 to 2018 to reflect changes in Union's Parkway delivery obligation proposal that will be implemented in November of each year, but not reflected in rates until the following January.

Please see the response at Exhibit B1.7, Attachment 2 for the annual and prorated rate impacts of Union's Parkway obligated delivery proposal from 2014 to 2018.

UNION GAS LIMITED

Answer to Interrogatory from  
Canadian Manufacturers & Exporters (“CME”)  
Corporation of the City of Kitchener (“CCK”)  
Federation of Rental-Housing Providers of Ontario (“FRPO”)  
Ontario Greenhouse Vegetable Growers (“OGVG”)

Reference: Exhibit A, Tab 1, page 19, Lines 17-18

Union states that, in accordance with the Board’s directive in EB-2011-0210, it reviewed the usage of the Kirkwall Station.

- a) Please provide the studies, reports, or other analyses developed in the course of Union’s review of Kirkwall Station usage.
- b) Please provide the contract quantities for Kirkwall-Dawn M12/C1 service, M12-X service, and Kirkwall-Parkway M12/C1 service that were used for the 2013 cost study.
- c) Please provide the design day demands of the in-franchise customers supplied from the TCPL Kirkwall transmission line that were used for the 2013 cost study.
- d) Please provide the actual contract quantities for Kirkwall-Dawn M12/C1 service, M12-X service, and Kirkwall-Parkway M12/C1 service on November 1, 2013.
- e) Please provide the estimated contract quantities for Kirkwall-Dawn M12/C1 service, M12-X service, and Kirkwall-Parkway M12/C1 service on November 1, 2014.

---

**Response:**

- a) Union did not prepare any studies in its review of the usage of the Kirkwall Station and the allocation of Kirkwall metering costs. Please also see Exhibit B1.3 part a).
- b) The 2013 Board-approved cost allocation study includes easterly design day demands of  $12.906 \times 10^6 \text{m}^3$  for M12 Dawn to Kirkwall transportation service and  $6.973 \times 10^6 \text{m}^3$  for M12 Kirkwall to Parkway transportation service.

The 2013 forecast also included M12-X Kirkwall to Parkway demands of  $1.661 \times 10^6 \text{m}^3$ , which were assumed in the 2013 Board-approved cost allocation study to be Dawn to Parkway demands on design day.

c) Please see Attachment 1, as filed in EB-2011-0210, J.G-1-7-4. The Union South in-franchise demands supplied from TCPL Kirkwall transmission line are the Hamilton 3 and Kirkwall-Dominion design day demands.

d)-e) Please see Table 1 below.

Table 1

Line No.	Particulars (GJ/d)	Contract Quantities	Contract Quantities
	(a)	(b)	(c)
1	Contract	01-Nov-13	01-Nov-14
2	Kirkwall-Dawn M12/C1	-	-
3	Kirkwall-Dawn M12X	391,011	396,011
	Kirkwall-Parkway		
4	M12/C1	300,000	300,000

UNION GAS LIMITED

Answer to Interrogatory from  
TransCanada PipeLines Limited ("TCPL")

Reference: Exhibit G3, Tab1  
Exhibit B1, Tab 5  
Union's 2004 Rate Application RP-2003-0063, Exhibit J32.4

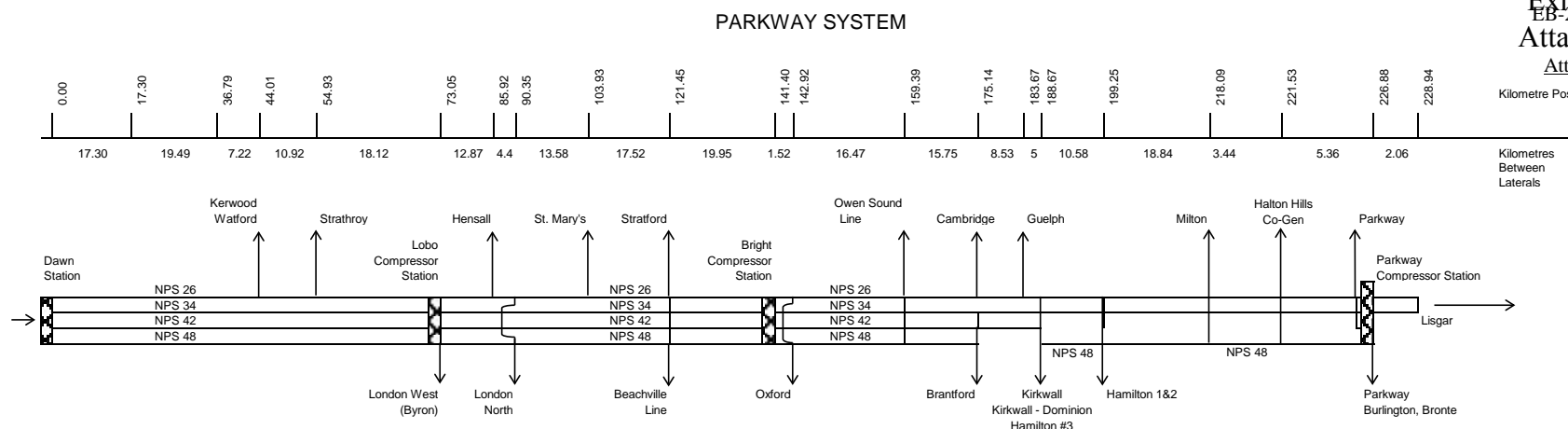
Preamble: TransCanada seeks information to better understand how Union allocates Dawn-Trafalgar transmission demand costs, to be provided in the same format as Attachment 1.

Please provide schematics of Union's Dawn-Trafalgar system on the 2012/2013 winter design day and the 2013/2014 winter design day. Following the format of the schematic in reference (iii), please include tables showing design day demands, system capacity, and compressor station operating conditions at peak hour.

---

**Response:**

The schematic of Union's Dawn-Parkway transmission system based on 2012/2013 and 2013/2014 winter design day are provided at Attachment 1 and Attachment 2.



**Design Day Demands**

	(GJ/d)
<b>Southern Ontario</b>	
Forest, Watford	7,098
Strathroy	7,865
London West	112,938
Hensall	29,185
London North	97,723
St. Mary's	6,499
Stratford	36,514
Beachville	52,214
Oxford Line	42,989
Owen Sound Line	236,331
Cambridge	70,044
Brantford	98,057
Kirkwall - Dominion	81,022
Guelph	83,106
Hamilton 3	59,460
Hamilton 1&2	253,816
Milton	70,838
Halton Hills	139,719
Parkway (Greenbelt)	34,903
Burlington, Bronte	137,375
<b>Total Southern Ontario</b>	<b>1,657,698</b>
<b>North and Eastern Ontario</b>	<b>262,587</b>
Kirkwall	773,381
Parkway TCPL	2,459,230
Parkway Cons/Lisgar	1,627,393
<b>Total M12</b>	<b>4,860,004</b>
<b>Total Design Day Demands</b>	<b>6,780,289</b>

**System Capacity**

	(GJ/d)
<b>Total System Capacity</b>	<b>6,811,088</b>
(Including Firm Service Receipts of 654,370 GJ/d)	
<b>Total Requirements</b>	<b>6,780,289</b>
<b>Total (Shortfall) Surplus</b>	<b>30,800</b>
Union Markets	
M12 Transportation	
Kirkwall	
Lisgar, Parkway	30,800

**Compressor Stations**

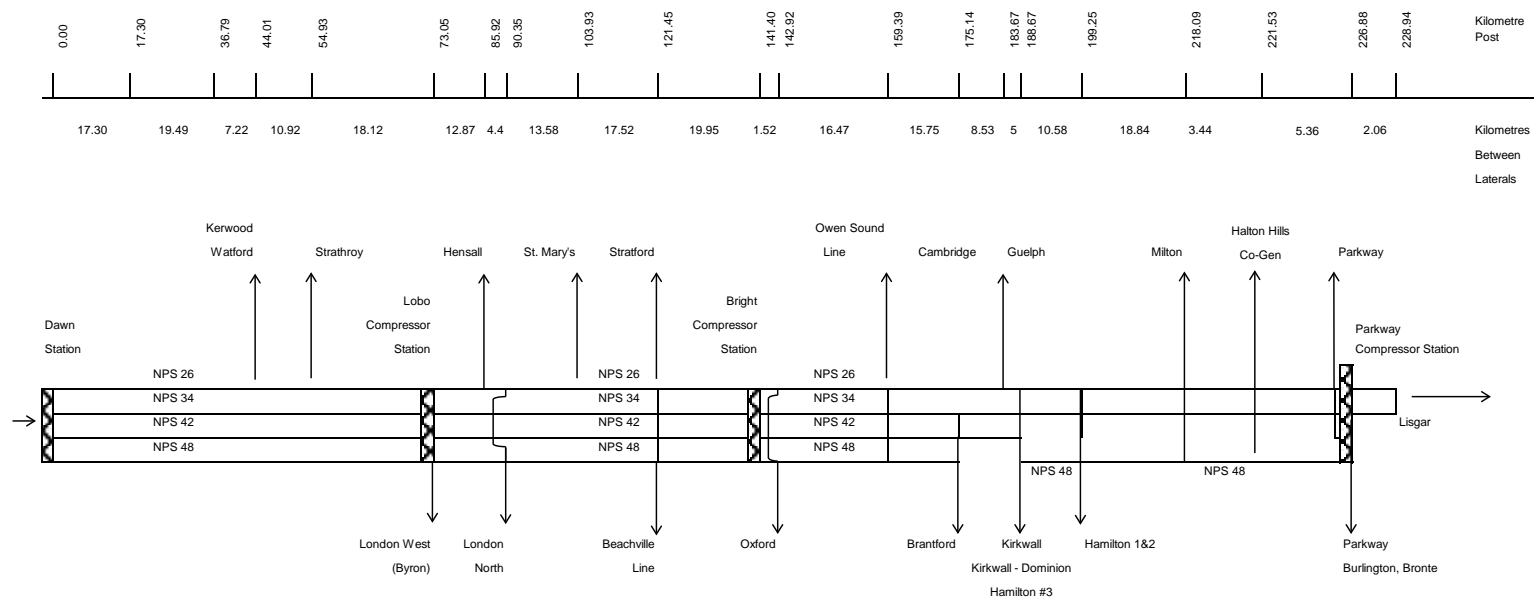
**Operating Conditions at Peak Hour**

STATION	LOBO	BRIGHT	PARKWAY
Power Available (MW)	36.8	91.9	52.9
Power Required (MW)	36.8	91.9	49.3
Pressure			
Suction (kPa)	4,536	3,764	3,520
Discharge (kPa)	5,294	5,845	6,453
Compression Ratio	1.17	1.55	1.83
Flow (GJ/d)	6,120,200	5,990,121	2,235,287
Daily Fuel (GJ/d)	11,513	21,195	11,752

**WINTER DESIGN DAY  
PARKWAY SYSTEM  
WINTER 2012/13**



# PARKWAY SYSTEM



## **Design Day Demands**

	(GJ/d)
<b>Southern Ontario</b>	
Forest, Watford	6,943
Strathroy	7,716
London West	110,799
Hensall	28,581
London North	95,956
St. Mary's	6,384
Stratford	35,714
Beachville	51,808
Oxford Line	42,634
Owen Sound Line	234,289
Cambridge	69,021
Brantford	97,294
Kirkwall - Dominion	80,392
Guelph	82,175
Hamilton 3	59,756
Hamilton 1&2	255,082
Milton	71,209
Halton Hills	139,762
Parkway (Greenbelt)	35,086
Burlington, Bronte	138,095
<b>Total Southern Ontario</b>	<b>1,648,695</b>
<b>North and Eastern Ontario</b>	<b>262,587</b>
Kirkwall	487,183
Lisgar, Parkway	4,194,375
<b>Total M12</b>	<b>4,681,558</b>
<b>Total Design Day Demands</b>	<b>6,592,840</b>

## **System Capacity**

	(GJ/d)
<b>Total System Capacity</b>	<b>6,802,653</b>
(Including Firm Service Receipts of 639,088 GJ/d)	
<b>Total Requirements</b>	<b>6,592,840</b>
<b>Total (Shortfall) Surplus</b>	<b>209,813</b>
Union Markets	
M12 Transportation	
Kirkwall	
Lisgar, Parkway	209,813

## **Compressor Stations**

### **Operating Conditions at Peak Hour**

STATION	LOBO	BRIGHT	PARKWAY
Power Available (MW)	36.8	91.9	52.9
Power Required (MW)	36.8	91.9	52.8
Pressure			
Suction (kPa)	4,503	3,847	3,655
Discharge (kPa)	5,283	6,028	6,453
Compression Ratio	1.17	1.57	1.77
Flow (GJ/d)	6,037,409	5,957,281	2,537,630
Daily Fuel (GJ/d)	11,517	20,307	12,544

WINTER DESIGN DAY  
PARKWAY SYSTEM  
WINTER 2013/14

UNION GAS LIMITED

Answer to Interrogatory from  
Canadian Manufacturers & Exporters (“CME”)  
Corporation of the City of Kitchener (“CCK”)  
Federation of Rental-Housing Providers of Ontario (“FRPO”)  
Ontario Greenhouse Vegetable Growers (“OGVG”)

Reference: Exhibit A, Tab 1, Page 20, Lines 2-3 and EB-2010-0296, Exhibit A, Page 9, Lines 20-22.

- a) Please describe the metering and regulating facilities at the Kirkwall Station before and after the referenced metering modifications.
- b) In EB-2010-0296 Union estimated the cost of the metering modifications to be \$4.7 million and estimated the annual revenue requirement associated with this capital investment to be \$0.266 million. Please provide the actual costs of the Kirkwall metering modifications, and update the associated revenue requirement for actual costs and the rate parameters used in the 2013 cost study.
- c) Please provide the 2013 revenue requirement for all Kirkwall Station facilities.

---

**Response:**

- a) Prior to the metering modifications the Union Kirkwall Custody Transfer station (17V-301) consisted of 13 meter runs (including turbine meter, filter, valve, check valve and pipe), four control valve runs (control valve, valve, and pipe) and a control valve bypass. The modifications made to the station were to install four valves and some ancillary valves and piping. The four valves that were added are commonly referred to as “corner” valves, which allow gas flow to be measured in the reverse direction, thus making this station “bi-directional”.
- b) The actual capital costs of the Kirkwall metering modifications are \$4.2 million and the revenue requirement associated with these costs is \$0.239 million.

Union allocates the Kirkwall metering costs in proportion to distance weighted design day demands on the Dawn-Parkway transmission system. Please refer to the response at Exhibit B9.7 part a) for the calculation of the 2013 Board-approved Dawn to Parkway distance weighted design day demands.

- c) The estimated 2013 Board-approved revenue requirement associated with Kirkwall Station facilities is approximately \$1.570 million. Please see Attachment 1.

UNION GAS LIMITED  
Estimated 2013 Board-approved Kirkwall Station Revenue Requirement

Line No.	Particulars (\$000's)	Kirkwall Station (a)
	<u>Gross Plant</u>	
1	Transmission Plant	17,205
2	General Plant	472
3	Total Gross Plant	<u>17,677</u>
	<u>Accumulated Depreciation</u>	
4	Transmission Plant	6,287
5	General Plant	217
6	Total Gross Plant	<u>6,504</u>
7	Working Capital	<u>117</u>
8	Rate Base (line 3 + line 6 + line 7)	<u>11,290</u>
	<u>Revenue Requirement Summary</u>	
9	Return and Taxes	924
10	Depreciation Expense	498
	<u>Operating Expenses</u>	
11	Transmission	67
12	General Operating & Engineering	14
13	Administrative & General	68
14	Total Operating Expenses	<u>149</u>
15	Total Revenue Requirement (line 9 + line 10 + line 14)	<u><u>1,570</u></u>

UNION GAS LIMITED

Answer to Interrogatory from  
Canadian Manufacturers & Exporters (“CME”)  
Corporation of the City of Kitchener (“CCK”)  
Federation of Rental-Housing Providers of Ontario (“FRPO”)  
Ontario Greenhouse Vegetable Growers (“OGVG”)

Reference: Exhibit A, Tab 1, Page 20, Lines 18-19 and EB-2011-0210, Exhibit G.

Union states that the cost allocation methodology used for Kirkwall Station costs is appropriate because “it treats these facilities in a manner consistent with other Dawn-Parkway assets”. We want to better understand how Union treats the costs associated with the transmission metering and regulating assets located at Dawn.

The Union Gas cost allocation study functionalizes metering and regulating assets located at Dawn as either storage or transmission. The rate base related costs of measuring and regulating assets that are used solely for transmission or storage are directly assigned using the STORM&R Direct Assignment Factor. The remaining assets are functionalized using the M&RRECL-PT Allocation Factor. The operating and maintenance costs of measuring and regulating assets located at Dawn are functionalized between storage and transmission using the M&RRECL-O&M Allocation Factor.

The factors used to functionalize Dawn measuring and regulating costs are defined as follows:

STORM&R	Directly assigns the plant costs of reclassified Underground Storage measuring and regulating equipment at Dawn Station that relates to the Dawn-Trafalgar Easterly transmission system. Directly assigns the plant costs of outboard Underground Storage measuring and regulating equipment.
M&RRECL-PT	Functionalizes measuring and regulating rate base related costs based on an analysis of use.
M&RRECL-O&M	Functionalizes measuring and regulating O&M costs based on an analysis of use.

- a) With respect to the STORM&R Direct Assignment Factor, please explain why most of the rate base related costs of storage assets that are used for transmission are assigned to the Dawn Station cost category, but some of the rate base related costs of storage assets that are used for transmission are assigned to the Dawn-Trafalgar Easterly cost category. What is the basis for this determination?
- b) With respect to the M&RRECL-PT Allocation Factor, please explain why all of the remaining rate base related costs of storage assets that are used for transmission (excluding Ojibway costs) are allocated to the Dawn-Trafalgar Easterly cost category and none of the

remaining costs are allocated to the Dawn Station cost category. What is the basis for this determination? Please provide a detailed explanation of the information and calculations that go into the “analysis of use”.

- c) With respect to the M&RRECL-O&M Allocation Factor, please explain why all of the operating and maintenance costs of storage assets that are used for transmission are allocated to the Dawn-Trafalgar Easterly cost category and none of these costs are allocated to the Dawn Station cost category. What is the basis for this determination? Please provide a detailed explanation of the information and calculations that go into the “analysis of use”.
- d) Please explain why the M&RRECL-PT Allocation Factor and M&RRECL-O&M Allocation Factor appear to be identical.
- e) Please confirm that Dawn measuring and regulating costs that are assigned or allocated to the Dawn Station cost category are not allocated to customer classes using the same methodology as Kirkwall Station metering and regulating costs, but are allocated based on peak demands for easterly flows into the Dawn Parkway transmission system at Dawn.
- f) Would it be reasonable to include all of the Dawn measuring and regulating costs that are functionalized as transmission in the Dawn Station cost category? If Union believes that this would not be reasonable, please explain.

---

**Response:**

- a) As described in EB-2011-0210, Exhibit G3, Tab 1, Schedule 1, Updated, pp. 3 - 4, certain Dawn facility assets are only used in the provision of transmission services even though they are classified as underground storage assets in the plant accounting records. Union has directly assigned underground storage assets at Dawn that are directly attributable to the provision of transmission services only to the transmission function in the cost allocation study.

The assets that have been directly assigned to the Dawn-Parkway transmission system include the assets that are directly attributable to the Dawn-Parkway transmission system. The assets that have been directly assigned to Dawn-Parkway transmission include the total measurement facilities, which measure the Dawn-Parkway transmission volumes, and the 26”/34”/42” meter runs.

The assets that have been directly assigned to the Dawn Station include the assets that are directly attributable to other transmission within the Dawn yard. The assets that have been directly assigned to Dawn Station include the transmission assets required to interconnect with other pipelines in the Dawn yard, such as TCPL, Vector, Tecumseh and Tecumseh Sombra Line Extension. Union also directly assigned the Plant E compressor costs to Dawn

Station transmission, as the Plant E compressor provides transmission service only.

- b) For measuring and regulating assets at the Dawn facility, Union functionalizes the remaining measuring and regulating plant costs based on an analysis of use. The analysis identifies forecasted transmission and storage activity at Dawn in order to functionalize measuring and regulating assets between the storage and transmission functions. Specifically, the calculation includes the forecasted deliveries and receipts into and from the Dawn-Parkway system, Dawn storage and the Ojibway/St. Clair system. The regulated storage analysis includes in-franchise storage activity and short-term storage activity associated with the excess utility storage space.

The calculation of the measuring and regulating allocation is provided in Table 1 below.

Table 1  
Derivation of M&RRECL-PT Allocation Factor

Line No.	Activity at Dawn	(10 <sup>3</sup> m <sup>3</sup> )	(%)
1	Dawn to/from Dawn-Parkway	22,046,849	74.5%
2	Dawn to/from Regulated Storage	7,081,378	23.9%
3	Dawn to/from Ojibway/St. Clair	462,260	1.6%
4	Total	29,590,486	100.0%

As shown above, the activity at Dawn is specific to the Dawn-Parkway transmission system and therefore Union has functionalized 74.5% of the measuring and regulating costs at Dawn to the Dawn-Parkway transmission system.

- c) Please see part b).
- d) The M&RRECL-PT and M&RRECL-O&M allocation factors are the same. Union allocates both measuring and regulating storage plant and O&M on the same basis, as described in part b). The M&R O&M is functionalized in proportion to M&R plant to recognize that the O&M expenses are incurred to operate and maintain the M&R assets. This approach best reflects cost causality.
- e) Confirmed.
- f) As is the case with any cost allocation analysis, there may be several ways to allocate Dawn measuring and regulating costs that are currently functionalized as transmission to the Dawn-Trafalgar Easterly function.

However, Union believes that its Board-approved cost allocation methodology for Dawn measuring and regulating costs, as described above, best reflects cost causality.

UNION GAS LIMITED

Answer to Interrogatory from  
Canadian Manufacturers & Exporters (“CME”)  
Corporation of the City of Kitchener (“CCK”)  
Federation of Rental-Housing Providers of Ontario (“FRPO”)  
Ontario Greenhouse Vegetable Growers (“OGVG”)

Reference: Exhibit A, Tab 1, Page 20, Lines 18-19 and EB-2011-0210, Exhibit G.

Union states that the cost allocation methodology used for Kirkwall Station costs is appropriate because “it treats these facilities in a manner consistent with other Dawn-Parkway assets”. We want to better understand how Union treats the costs associated with the transmission compression assets located at Dawn.

The Union Gas cost allocation study functionalizes compression assets located at Dawn as either storage or transmission. The rate base related costs of compression assets and structures & improvements that are used solely for transmission or storage are directly assigned using the STORCOMP Direct Assignment Factor and the STORS&I Direct Assignment Factor. The remaining compression assets and structures and improvements are functionalized using the COMPRECL-PT Allocation Factor. The operating and maintenance costs of compression assets located at Dawn are functionalized between storage and transmission using the COMPRECL-O&M Allocation Factor.

The factors used to functionalize Dawn compression costs are defined as follows:

STORCOMP	Directly assigns the plant costs of reclassified Underground Storage compressor equipment at Dawn Station that relates to the Dawn-Trafalgar Easterly transmission system. Directly assigns the plant costs of outboard Underground Storage compressor equipment.
STORS&I	Directly assigns the plant costs of reclassified Underground structures and improvements at Dawn Station that related to the Dawn-Trafalgar Easterly transmission system. Directly assigns the plant costs of outboard Underground Storage structures and improvements.
COMPRECL-PT	Functionalizes compression rate base related costs based on horsepower requirements.
COMPRECL-O&M	Functionalizes compression O&M costs based on fuel requirements.

- a) With respect to the STORCOMP and STORS&I Direct Assignment Factors, please explain why most of the rate base related costs of storage assets that are used for transmission are assigned to the Dawn Station cost category, but some of the rate base related costs of storage assets that are used for transmission are assigned to the Dawn-Trafalgar Easterly cost category. What is the basis for this determination?



- b) With respect to the COMPRECL-PT Allocation Factor, please explain why all of the remaining rate base related costs of storage assets that are used for transmission (excluding Ojibway costs) are allocated to the Dawn Station cost category and none of the remaining costs are allocated to the Dawn-Trafalgar Easterly cost category. What is the basis for this determination?
  - c) With respect to the COMPRECL-O&M Allocation Factor, please explain why all of the operating and maintenance costs of storage assets that are used for transmission are allocated to the Dawn Station cost category and none of these costs are allocated to the Dawn Station cost category. What is the basis for this determination?
  - d) Is the COMPRECL-O&M Allocation Factor based on design day fuel requirements, annual fuel requirements, or something different? Please explain.
  - e) Assuming no change in in-franchise or ex-franchise customer demands, does an increase in transmission compression horsepower at Dawn reduce the compression horsepower required at Lobo and/or Bright? Please explain.
  - f) Would it be reasonable to include all of the Dawn compression costs that are functionalized as transmission in the Dawn-Trafalgar Easterly cost category, which would be consistent with Union's treatment of the other compressor assets on the Dawn-Parkway transmission system? If Union believes that this would not be reasonable, please explain.
- 

**Response:**

- a) Please see to the response at Exhibit B9.3 part a).
- b) Union's Board approved cost allocation methodology functionalizes the transmission-related Dawn compressor costs (plant and O&M) as Dawn Station and allocates these costs to rate classes in proportion to design day demands. The rationale for this cost allocation methodology is to allocate costs based on how rate classes utilize Dawn compression assets on design day.
- c) Please see part b).
- d) The compressor O&M allocation factor (COMPRECL-O&M) functionalizes compression-related O&M costs between storage and transmission based on the 2013 forecast annual compressor fuel requirements.
- e) No. The design of the Dawn to Parkway system assumes Dawn is capable of providing a MOP of 6160 kPa as a starting pressure into the Dawn to Parkway lines. This pressure cannot be exceeded and does not decrease the requirement for compression at Lobo or Bright.

- f) As is the case with any cost allocation analysis, there may be several ways to allocate Dawn compression costs that are currently functionalized as transmission to the Dawn-Station function.

However, Union believes that its Board-approved cost allocation methodology for Dawn compression costs, as described above, best reflects cost causality.

UNION GAS LIMITED

Answer to Interrogatory from  
Canadian Manufacturers & Exporters (“CME”)  
Corporation of the City of Kitchener (“CCK”)  
Federation of Rental-Housing Providers of Ontario (“FRPO”)  
Ontario Greenhouse Vegetable Growers (“OGVG”)

Reference: Exhibit A, Tab 1, Page 20, Lines 18-19

Union states that the existing cost allocation methodology used for Kirkwall Station costs is appropriate because “it treats these facilities in a manner consistent with other Dawn-Parkway assets”. We want to better understand how Union treats the costs associated with the metering and regulating assets located at Parkway.

- a) Please provide the gross plant in service and revenue requirement for the following assets at Parkway: (i) the metering and regulating and associated facilities at the interconnection with TCPL, and (ii) the metering and regulating and associated facilities at the interconnection with Enbridge at Parkway, and (iii) the metering and regulating and associated facilities at the interconnection with Enbridge at Lisgar.
- b) Please provide the design day demands for deliveries into TCPL at Parkway, broken out by ex-franchise (M12/C1), Union South, and Union North and East that were used for the 2013 cost study.
- c) Please provide the design day demands for deliveries into Enbridge that were used for the 2013 cost study.

---

**Response:**

- a) Union’s plant accounting records do not separate the Parkway Station measuring and regulating assets at the interconnection with TCPL from the interconnection with Enbridge.

Please see Attachment 1, column a) for the total measuring and regulating gross plant and estimated revenue requirement for the combined TCPL and Enbridge interconnections at Parkway.

Please see Attachment 1, column b) for the measuring and regulating gross plant and estimated revenue requirement for the interconnection with Enbridge at Lisgar.

The revenue requirement calculations are based on the 2013 Board-approved cost allocation study. The revenue requirements include the costs for measuring and regulating assets and

related measuring and regulating O&M costs only. The revenue requirement excludes the additional Parkway and Lisgar station costs related to land, structures and compressors.

- b) The 2013 Board-approved design day demands for deliveries into TCPL at Parkway are provided in Table 1 below.

Table 1  
2013 Board-Approved Design Day Demands  
Delivered into TCPL at Parkway

Line No.	Design Day Demands	(10 <sup>6</sup> m <sup>3</sup> /d) (a)
	Ex-franchise:	
1	Dawn to Parkway	43.110
2	Kirkwall to Parkway	6.973
3	Total Ex-franchise	<u>50.083</u>
4	Union South In-franchise	-
5	Union North In-franchise	<u>6.956</u>
6	Total Design Day Demands into TCPL at Parkway	<u><u>57.039</u></u>

- c) The 2013 Board-approved design day demands for ex-franchise deliveries into Enbridge at the suction side of Parkway (i.e. uncompressed) and Lisgar are 61.026 10<sup>6</sup>m<sup>3</sup>/d.

Estimated 2013 Board-Approved Measuring and Regulating  
Revenue Requirement at Parkway and Lisgar

Line No.	Particulars (\$000's)	TCPL and Enbridge Interconnection M&R at Parkway (a)	Enbridge Interconnection M&R at Lisgar (b)
	<u>Gross Plant</u>		
1	Transmission Plant	11,602	2,788
2	General Plant	379	66
3	Total Gross Plant	<u>11,981</u>	<u>2,854</u>
	<u>Accumulated Depreciation</u>		
4	Transmission Plant	2,616	1,309
5	General Plant	174	30
6	Total Gross Plant	<u>2,790</u>	<u>1,340</u>
7	Working Capital	<u>95</u>	<u>16</u>
8	Rate Base (line 3 + line 6 + line 7)	<u>9,286</u>	<u>1,530</u>
	<u>Revenue Requirement Summary</u>		
9	Return and Taxes	760	125
10	Depreciation Expense	352	81
	<u>Operating Expenses</u>		
11	Transmission	42	11
12	General Operating & Engineering	9	3
13	Administrative & General	43	12
14	Total Operating Expenses	<u>94</u>	<u>26</u>
15	Total Revenue Requirement (line 9 + line 10 + line 14)	<u><u>1,205</u></u>	<u><u>232</u></u>

UNION GAS LIMITED

Answer to Interrogatory from  
Canadian Manufacturers & Exporters (“CME”)  
Corporation of the City of Kitchener (“CCK”)  
Federation of Rental-Housing Providers of Ontario (“FRPO”)  
Ontario Greenhouse Vegetable Growers (“OGVG”)

Reference: Exhibit A, Tab 1, Page 20, Lines 18-19

Union states that the existing cost allocation methodology used for Kirkwall Station costs is appropriate because “it treats these facilities in a manner consistent with other Dawn-Parkway assets”. We want to better understand how Union treats the costs associated with the compression assets located at Parkway.

- a) Please provide (i) the minimum pressure at which Union Gas is contractually obligated to deliver gas to TCPL at Parkway, and (ii) the maximum operating pressure of the Dawn Parkway transmission system.
- b) Assuming no change in in-franchise or ex-franchise customer demands, does an increase in compression horsepower at Parkway reduce the compression horsepower required at Lobo and/or Bright, or is the Parkway compression only required to meet the minimum pressure for gas delivered to TCPL? Please explain.

---

**Response:**

- a) Union is required to deliver gas to TCPL at Parkway at a minimum pressure of 6450 kPag. The maximum operating pressure of the Dawn to Parkway transmission system is 6160 kPag.
- b) An increase in Parkway horsepower does not reduce the compression horsepower required at Lobo and / or Bright. Parkway compression is required to deliver gas to TCPL at the required 6450 kPag minimum pressure.

UNION GAS LIMITED

Answer to Interrogatory from  
Canadian Manufacturers & Exporters (“CME”)  
Corporation of the City of Kitchener (“CCK”)  
Federation of Rental-Housing Providers of Ontario (“FRPO”)  
Ontario Greenhouse Vegetable Growers (“OGVG”)

Reference: Exhibit A, Tab 1, Page 20, Lines 11-15 and EB-2011-0210, Exhibit J.G-1-7-5, Attachment 1.

Union states that Kirkwall metering costs are allocated to rate classes based on a “commodity-kilometres” (distance-weighted demands) allocation, and that this methodology recognizes that the Dawn-Parkway transmission system is designed to meet easterly design day requirements.

- a) Please provide a table showing how the Dawn Trafalgar allocation factors were calculated for the 2013 cost study.
- b) Please explain any differences between the table provided in (a) and Exhibit J.G-1-7-5, Attachment 1, from the EB-2011-0210 proceeding.
- c) Please explain why the total commodity-kilometres are increased by westerly flows for Union South demands that are assumed to be supplied by Parkway (Exhibit J.G-1-7-5, Attachment 1, Line 26).

---

**Response:**

- a) The 2013 Board-approved Dawn-Parkway distance weighted design day demands are provided in Table 1 below.

Table 1  
Calculation of the 2013 Board-Approved  
Dawn-Parkway Distance Weighted Design Day Demands

Line No.	Particulars	Dawn-Parkway Design Day Demands (10 <sup>6</sup> m <sup>3</sup> )	Average Distance (km)	Distance Weighted Demands (10 <sup>6</sup> m <sup>3</sup> x km)
		(a)	(b)	(c) = (a x b)
1	Union North In-franchise	6.956	229	1,592
2	Union South In-franchise	43.674	82	3,588
3	Rate M12	124.015	214	26,557
4	Total	174.645		31,737

Please see Attachment 1 for a detailed calculation of the Dawn-Parkway distance weighted demands.

- b) The difference between Table 1 from part a) and the allocation units provided at EB-2011-0210, Exhibit J.G-1-7-5, Attachment 1, is that Table 1 includes Union North distance weighted design day demands.
- c) The westerly flows included in the calculation of the Dawn-Parkway distance weighted demands represent the Union South design day demands that are served from Parkway via the Parkway obligated deliveries.

As described in EB-2013-0365, Exhibit A, Tab 4, p. 36, for the design day demands served from Parkway, Union measures the distance from Parkway to the transmission lateral that is used to serve the in-franchise demands west of Parkway. As a result, the Union South in-franchise customers' Parkway obligated deliveries reduce the distance Union South in-franchise design day demands are required to be transported on the Dawn-Parkway system.

For example, when served from Parkway, the distance the design day demands of 1.684 10<sup>6</sup>m<sup>3</sup> at the Milton transmission lateral are required to be transported are approximately 11 km (Attachment 1, line 20), which results in distance weighted design day demands of 18 10<sup>6</sup>m<sup>3</sup> km (1.684 10<sup>6</sup>m<sup>3</sup>/d x 11 km). If the demands of 1.684 10<sup>6</sup>m<sup>3</sup> at the Milton transmission lateral were served from Dawn, the demands would be required to be transported 218 km, which would have resulted in distance weighted design day demands of 367 10<sup>6</sup>m<sup>3</sup> km/d (1.684 10<sup>6</sup>m<sup>3</sup>/d x 218 km).



2013 Board-Approved Dawn-Parkway Allocation Units  
Winter 2013/14

Line No.	Particulars	Demand (10 <sup>6</sup> m <sup>3</sup> /d) (a)	Kilometre Post (km) (b)	Commodity Kilometre ((10 <sup>6</sup> m <sup>3</sup> /d)*km) (c)
<u>Union Demands Supplied by Dawn</u>				
1	Forest, Watford	0.184	44.01	8.094
2	Strathroy	0.204	54.93	11.228
3	Byron	2.935	73.05	214.408
4	Hensall	0.515	85.74	44.161
5	London N	2.542	90.35	229.659
6	Hensall	0.242	85.74	20.754
7	St Mary's	0.169	103.93	17.575
8	Stratford	0.946	121.45	114.898
9	Beachville	1.372	121.45	166.677
10	Oxford	1.129	142.92	161.410
11	Owen Sound Line	6.206	159.39	989.229
12	Cambridge	1.828	175.14	320.219
13	Brantford	2.577	175.14	451.394
14	Guelph	2.177	183.67	399.817
15	Kirkwall- Dominion	2.130	188.67	401.787
16	Gate 3	1.024	188.67	193.188
17	Gates 1 & 2	6.757	199.25	1346.358
18	Milton	0.202	218.09	44.126
19		<u>33.141</u>		<u>5,134.980</u>
20	Northern & Eastern Areas Adjustment	<u>(6.956)</u>	228.94	<u>(1,592.495)</u>
21	Total Union Demands Supplied by Dawn	<u>26.185</u>		<u>3,542.486</u>
<u>Union Demands Supplied by Parkway</u>				
22	Milton	1.684	10.85	18.271
23	Halton Hills (dist'n)	0.222	7.33	1.630
24	HH Power Plant	3.480	7.33	25.508
25	Burlington	1.433	0.00	0.000
26	Bronte	2.225	0.00	0.000
27	Greenbelt	0.929	0.00	0.000
28		<u>9.974</u>		<u>45.409</u>
29	Northern & Eastern Areas Adjustment	<u>6.956</u>	0.00	<u>-</u>
30	Total Union Demands Supplied by Parkway	<u>16.930</u>		<u>45.409</u>
<u>Union Demands Supplied by Kirkwall</u>				
31	Gate 3	<u>0.559</u>	0.00	<u>0.000</u>
32		<u>0.559</u>		<u>0.000</u>
33	Total Union	<u>43.674</u>		<u>3,587.895</u>
<u>Storage &amp; Transportation Contracts</u>				
34	Dawn to Parkway	104.136	228.94	23,840.847
35	Dawn to Kirkwall	12.906	188.67	2,434.883
36	Kirkwall to Parkway	6.973	40.27	280.822
37	Total S & T	<u>124.015</u>		<u>26,556.552</u>
38	Northern & Eastern Areas	<u>6.956</u>	228.940	<u>1592.495</u>
39	Total Union and S&T	<u>174.645</u>		<u>31,736.942</u>

UNION GAS LIMITED

Answer to Interrogatory from  
Canadian Manufacturers & Exporters (“CME”)  
Corporation of the City of Kitchener (“CCK”)  
Federation of Rental-Housing Providers of Ontario (“FRPO”)  
Ontario Greenhouse Vegetable Growers (“OGVG”)

Reference: Exhibit A, Tab 1, Page 20, Lines 11-17

Union states that Kirkwall metering costs are allocated to rate classes based on a “commodity-kilometres” (distance-weighted demands) allocation, and that this methodology recognizes that rate classes use the Dawn-Parkway system in varying degrees based on the distance design day demands are required to be transported along the Dawn-Parkway transmission system.

- a) Please explain how the design of the Kirkwall Station facilities is affected by the distance gas is transported along the Dawn-Parkway transmission system either prior to entering the Kirkwall Station or after leaving the Kirkwall Station.
- b) Please explain how Kirkwall Station metering and regulating operating and maintenance costs are affected by the distance gas is transported along the Dawn-Parkway transmission system either prior to entering the Kirkwall Station or after leaving the Kirkwall Station.
- c) Would it be reasonable to allocate Kirkwall Station costs to rate classes based on design day demands through the metering and regulating facilities? If Union believes that this would not be reasonable, please explain.

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**Response:**

- a) The design of the Kirkwall Station facilities is not affected by the distance gas is transported along the Dawn-Parkway transmission system. The Kirkwall Station is required to support easterly design day demands that are transported on the Dawn-Parkway system. Accordingly, Union allocates Kirkwall Station costs based on distance weighted design day demands, consistent with the allocation of Dawn-Parkway costs.
- b) The operating and maintenance costs of the Kirkwall Station are not affected by the distance gas is transported along the Dawn-Parkway transmission system. The Kirkwall Station is required to meet easterly design day demands that are transported on the Dawn-Parkway system and the costs associated with the Kirkwall Station are allocated to rate classes based on distance weighted design day demands.

Union’s cost allocation methodology recognizes that Union incurs the measuring and regulating O&M costs to operate and maintain the Kirkwall Station. As the Kirkwall Station

and the related O&M costs are required to meet Dawn-Parkway design day demands and are considered demand-related costs, Union classifies these costs as Dawn-Parkway transmission demand costs. Union allocates the Kirkwall Station and related O&M costs to rate classes in proportion to distance-weighted design day demands to account for a rate classes' use of the Dawn-Parkway system, which includes the design day demands that are served using the Kirkwall Station.

- c) There may be a number of reasonable allocation methods to allocate Kirkwall Station costs including using design day demands through the metering and regulating facilities.

Union believes that its Board-approved cost allocation methodology based on distance weighted design day demands, as described in evidence (Exhibit A, Tab 1, pp. 19 - 20), is reasonable and best reflects cost causality.

UNION GAS LIMITED

Answer to Interrogatory from  
Canadian Manufacturers & Exporters (“CME”)  
Corporation of the City of Kitchener (“CCK”)  
Federation of Rental-Housing Providers of Ontario (“FRPO”)  
Ontario Greenhouse Vegetable Growers (“OGVG”)

Reference: Exhibit A, Tab 1, Page 20, Lines 19-20

Union states that the existing cost allocation methodology used for Kirkwall Station costs is appropriate because it “recognizes that these facilities are required to meet easterly peak day demands on the Dawn-Parkway transmission system.”

- a) Please explain how the Kirkwall Station facilities are “required” to meet peak day demands.
- b) Are the Kirkwall Station metering modifications that were completed in 2012 required to meet the peak day demands of any customers other than the ex-franchise customers with transportation services with firm receipt at Kirkwall? If so, please explain.
- c) Does Union Gas design the Dawn-Parkway transmission system facilities so that it will be able to meet its delivery obligations to in-franchise customers and other ex-franchise customers on a design day in the event that the ex-franchise customers with Kirkwall-Parkway and Kirkwall-Dawn transportation services do not deliver any gas at Kirkwall? If this is not the case, please explain.

---

**Response:**

- a) The Kirkwall Station is required to support easterly design day demands that are transported on the Dawn-Parkway system. Union customers have contracted for Dawn to Kirkwall, Kirkwall to Parkway – TCPL and Kirkwall to Parkway – Enbridge/Lisgar transportation. For Kirkwall to Parkway transportation services, customers are required to supply gas at Kirkwall. The Kirkwall Station modifications were completed to allow gas to enter Union’s system for transportation to the required delivery points.
- b) Union has contracted for 21,101 GJ/d of firm transportation from Niagara to Kirkwall to supply its in-franchise customers. The Kirkwall Station metering modifications were required for Union to accept this gas.
- c) Yes. In the event that an ex-franchise customer with Kirkwall to Parkway or Kirkwall to Dawn transportation services does not deliver any gas at Kirkwall on a design day, the Dawn to Parkway transmission system is designed such that it will be able to meet its delivery

obligations to in-franchise and other ex-franchise customers. Union will not deliver gas on a design day to any ex-franchise customer who does not deliver their required supply to Union.

UNION GAS LIMITED

Answer to Interrogatory from  
Canadian Manufacturers & Exporters (“CME”)  
Corporation of the City of Kitchener (“CCK”)  
Federation of Rental-Housing Providers of Ontario (“FRPO”)  
Ontario Greenhouse Vegetable Growers (“OGVG”)

Reference: Exhibit A, Tab 4, Page 38, Lines 1-10 and EB-2011-0210, Exhibit J.D-18-9-6.

Union states that Dawn transmission compression costs are allocated to rate classes in proportion to design day demands, and that Parkway obligated deliveries (including firm supply for sales service) reduce the allocation of Dawn transmission demand costs to Union South in-franchise customers.

- a) Please provide a table showing how the Dawn Compressor allocation factors were calculated for the 2013 cost study.
- b) Please explain any differences between the table provided in (a) and Exhibit J.D-18-9-6 from the EB-2011-0210 proceeding.
- c) Do firm deliveries at Kirkwall also reduce the allocation factors for Union South in-franchise customers? If so, please explain where this adjustment appears in the calculations.

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**Response:**

- a) Union allocates Dawn transmission compression costs in proportion to the design day demands that require Dawn compression. Table 1 below summarizes the 2013 Board-approved design day demands that require Dawn compression.

Table 1

Calculation of the 2013 Board-Approved Dawn Compression Design Day Demands Requiring Dawn Compression

Line No.	Particulars (10 <sup>3</sup> m <sup>3</sup> /d)	Rate M12 (a)	Union South In-franchise (b)	Union North In-franchise (c)	Total (d) = (a+b+c)
1	Design Day Demands	124,015	43,674	6,956	174,645
	Design Day Demands served from:				
2	Parkway	-	16,929	-	16,929
3	Kirkwall	6,973	559	-	7,532
4	Dawn	117,041	26,186	6,956	150,183
5	Load Not Requiring Dawn Compression (OSE/Edys Mills)	(857)	(192)	(51)	(1,100)
6	Total Design Day Demands Requiring Dawn Compression (line 5 + line 6)	116,184	25,994	6,905	149,083

- b) There are two differences between Table 1 and the Dawn Compression Detail Allocation Report provided at EB-2011-0210, Exhibit J.D-18-9-6. The differences are 1) the detail report does not include the Kirkwall demands and Kirkwall deliveries, which are equal and offsetting, and 2) the detail report provides the allocation by rate class.

Union has provided the updated Dawn Compression Detail Allocation Report to reflect the EB-2011-0210 Board decision at Attachment 1.

- c) Yes. As shown in Table 1 above, Kirkwall deliveries decrease the design day demands that require Dawn compression in the same manner as Parkway deliveries.

UNION GAS LIMITED  
2013 Board-Approved Dawn Compression Allocation Factor

Line No.	Particulars	Total	Gen. Service Small Volume M1	Gen. Service Large Volume M2	Firm Contract M4	Interruptible Contract-Firm M5	Interruptible Contract-Interruptible M5	Special Large Volume Contract - Firm M7	Special Large Volume Contract - Interruptible M7	Large Wholesale Service M9	Small Wholesale Service M10	Storage & Transportation Service - Firm T1	Storage & Transportation Service - Interruptible T1	Storage & Transportation Service - Firm T2	Storage & Transportation Service - Interruptible T2	Wholesale Storage & Transportation Service T3
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
	<u>Dawn Compression Allocator</u>															
1	Design Day Demands from Dawn (10 <sup>3</sup> m <sup>3</sup> /day)	167,112	-----	-----	-----	-----	-----	43,115	-----	-----	-----	-----	-----	-----	-----	-----
2	Parkway Firm Deliveries (10 <sup>3</sup> m <sup>3</sup> /day)	(16,929)	-----	-----	-----	-----	-----	(16,929)	-----	-----	-----	-----	-----	-----	-----	-----
3	Dawn Compression (10 <sup>3</sup> m <sup>3</sup> /day)	150,183	-----	-----	-----	-----	-----	26,186	-----	-----	-----	-----	-----	-----	-----	-----
4	OSE load not requiring Dawn Compression	(1,100)	-----	-----	-----	-----	-----	(192)	-----	-----	-----	-----	-----	-----	-----	-----
5	Dawn Compression excl. OSE (10 <sup>3</sup> m <sup>3</sup> /day)	149,083	-----	-----	-----	-----	-----	25,994	-----	-----	-----	-----	-----	-----	-----	-----
6	Infranchise Peak Day Demand (10 <sup>3</sup> m <sup>3</sup> /day)	43,624	22,132	7,435	2,162	20	0	997	0	356	11	1,068	0	6,931	0	2,511
7	North allocated on XSPK&AVG															
8	Infranchise Dawn Compression Allocation (10 <sup>3</sup> m <sup>3</sup> /day)	32,899	13,188	4,431	1,288	12	0	594	0	212	7	637	0	4,130	0	1,496
9	DAWNCOMP (10 <sup>3</sup> m <sup>3</sup> /day)	149,083	13,188	4,431	1,288	12	0	594	0	212	7	637	0	4,130	0	1,496



UNION GAS LIMITED  
2013 Board-Approved Dawn Compression Allocation Factor

Line No.	Particulars	Dawn-Trafalgar Transport Service M12 (p)	Small Volume General Firm Service R01 (q)	Large Volume General Firm Service R10 (r)	Medium Volume Firm Service R20 (s)	Large Volume High Load Factor Firm Service R100 (t)	Large Volume Interruptible Service R25 (u)
	<u>Dawn Compression Allocator</u>						
1	Design Day Demands from Dawn (10 <sup>3</sup> m <sup>3</sup> /day)	117,041	-----		6,956	-----	
2	Parkway Firm Deliveries (10 <sup>3</sup> m <sup>3</sup> /day)	0	-----		0	-----	
3	Dawn Compression (10 <sup>3</sup> m <sup>3</sup> /day)	117,041	-----		6,956	-----	
4	OSE load not requiring Dawn Compression	(857)	-----		(51)	-----	
5	Dawn Compression excl. OSE (10 <sup>3</sup> m <sup>3</sup> /day)	116,184	-----		6,905	-----	
6	Infranchise Peak Day Demand (10 <sup>3</sup> m <sup>3</sup> /day)	0					
7	North allocated on XSPK&AVG		6,498	1,701	455	32	0
8	Infranchise Dawn Compression Allocation (10 <sup>3</sup> m <sup>3</sup> /day)	0	5,166	1,352	361	25	0
9	DAWNCOMP (10 <sup>3</sup> m <sup>3</sup> /day)	116,184	5,166	1,352	361	25	0

UNION GAS LIMITED

Answer to Interrogatory from  
Canadian Manufacturers & Exporters (“CME”)  
Corporation of the City of Kitchener (“CCK”)  
Federation of Rental-Housing Providers of Ontario (“FRPO”)  
Ontario Greenhouse Vegetable Growers (“OGVG”)

Reference: Exhibit A, Tab 4, Page 24, Lines 1-12.

Please provide the estimated equivalency factor for repurposing Dawn-Parkway transmission system capacity that is used for firm transportation service from Dawn to Parkway (Consumers) to provide firm transportation service from Dawn to Parkway (TCPL). For example, for every 100 TJ/d of Dawn to Parkway (Consumers) capacity that is turned back, how much additional Dawn to Parkway (TCPL) service can Union provide with the same assets?

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**Response:**

Although Union does not forecast any turnback of Dawn to Parkway (Consumers) demand, additional Dawn to Parkway (TCPL) capacity generated by repurposing Dawn-Parkway (Consumers) demand is limited by the capability of the existing Parkway compressors and assumes that TransCanada has sufficient downstream capacity. Today, 100 TJ/d of Dawn to Parkway (Consumers) demand repurposed to Dawn to Parkway (TCPL) would provide 84 TJ/d of capacity. With the Parkway Projects in service (EB-2013-0074), 100 TJ/d of Dawn to Parkway (Consumers) demand repurposed to Dawn-Parkway (TCPL) would provide 100 TJ/d of capacity until such point as the Parkway compressors are fully utilized.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 2, page 2, B&V Report

Preamble: The referenced page states:

In the Board’s EB-2011-0210 Decision, the Board stated the following:

*“Also, the Board directs Union to hire an independent consultant to update the report that was filed in the EB-2011-0038 proceeding and file that report as part of its 2014 rates proceeding. The Board believes that it should have a robust evidentiary record in Union’s 2014 rates proceeding on all issues related to the allocation of storage costs between utility and non-utility storage. The Board notes that, as part of Union’s 2014 rates filing, it will revisit the allocation of all storage related costs between Union’s utility and non-utility storage operations. At that time, the Board may also order further updates to the allocation factors (including the general plant allocation factor).” (p.80)*

Union hired B&V to update the ‘Independent Review of the Accounting and Cost Allocation for Unregulated and Regulated Storage Operations’ report that was filed in EB-2011-0038. B&V’s Report (the “Report”) is attached at Tab 2, Appendix A and their findings are summarized below.

- a) Did Union consider retaining any consultant other than B&V to update the original B&V report filed in EB-2011-0038? If not, please explain why not.
- b) Please provide the amount that Union paid B&V for (i) the B&V report filed in EB-2011-0038, and (ii) the amount Union paid B&V for the report filed in this proceeding.

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**Response:**

- a) Union did not consider retaining any consultant other than B&V. B&V completed the original report filed in EB-2011-0038 and understands Union’s cost allocation methodologies for regulated and unregulated storage operations.
- b)
  - i) Union paid B&V \$86,679.38 (net of HST) for the report filed in EB-2011-0038.
  - ii) Union paid B&V \$77,794.94 (net of HST) for the report filed in this proceeding.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, Parkway Obligation Proposal

Preamble: VECC wishes to explore whether other gas distribution utilities in Canada or in North America allow large volume customers to determine, on their own and unfettered by any financial or non-financial consequences, to choose where they deliver gas on the distribution system to which the customers’ facilities are attached.

- a) Please provide a list of Canadian or North American gas distribution utilities which do not oblige any direct purchase customers to deliver gas at a contractually specified delivery point. Please note any financial or non-financial conditions attached to this privilege where applicable.
- b) Please provide a list of Canadian or North American gas distribution utilities which allow all direct purchase customers to deliver gas at any delivery point of their choosing without regard to distribution system balance. Please note any financial or non-financial conditions attached to this privilege where applicable.

---

**Response:**

Union does not have this information.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, pages 7, 16, and 17, Re-allocation Alternative

Preamble: The first referenced page states:

*Currently, Union’s sales service customers deliver 98 TJ/d of supply at Parkway. Union’s Parkway delivery obligation proposal does not include the transition of those quantities from Parkway. Should Union move all or a portion of the sales service Parkway delivery obligation to Dawn, the cost impacts will be treated the same as the costs to transition the direct purchase Parkway delivery obligation to Dawn.*

The second referenced page states, in respect of the pro-rated re-allocation alternative:

*ii) Re-allocate Dawn and Parkway delivery obligations between System and direct purchase customers. Under this option Union would re-allocate the Dawn and Parkway delivery obligations across all customers, sales service and direct purchase, on a pro-rated basis.*

The third referenced page states:

*If the re-allocation option was implemented, all customers, whether sales service or direct purchase, and whether east or west of Dawn would have the same proportionate delivery obligations at Dawn and Parkway.*

*While this option provides equity among all customers, it does not meet the objective of eliminating the Parkway obligation for direct purchase customers.*

- a) Is it fair to say that Union regards the elimination of the Parkway obligation for all direct purchase customers as being more important than equity among all customers?

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**Response:**

No. Please see the responses at Exhibit B1.8 and Exhibit B8.3.

UNION GAS LIMITED

Answer to Interrogatory from  
TransCanada Pipelines Limited ("TCPL")

Reference: i) Application, Exhibit A, Tab 4, Section 6.2.2 (page 23 of 46)

a) Please provide a table showing the Dawn-Parkway and Dawn-Kirkwall contract volumes in detail similar to the data posted by Union on its online Informational Postings of Transport Shippers. Please include the following information:

- Data by contract;
- Include contractually committed volumes for the contract years starting Nov 01/13, Nov 01/14, Nov 01/15 and Nov 01/16 reflecting all renewal and non-renewal contract notifications to date;
- Sort the contracts by contract holder and by receipt and delivery points;
- Include total contractual volumes by receipt/delivery point combination for each shipper for each of the years listed above;
- Include the total of all shipper contractual volumes by receipt/delivery point combination for each year;
- Provide all the data requested above in spreadsheet format.

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**Response:**

Please see Attachments 1 and 2.

Filed: 2014-01-30  
EB-2013-0365  
Exhibit B11.1  
Attachment 1

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(g)	(g)	(g)	(g)	
1		Customer Name	Contract Identifier	Receipt/Delivery Point	1-Nov-13	1-Nov-14	1-Nov-15	1-Nov-16	1-Nov-17	1-Nov-18	1-Nov-19	1-Nov-20
2		1425445 Ontario Limited o/a Utilities Kingston	M12077	Dawn to Parkway	11,322	6,322	6,322	6,322	6,322	6,322	6,322	6,322
3		1425445 Ontario Limited o/a Utilities Kingston	M12127	Dawn to Parkway	2,113	2,113	2,113	2,113	2,113	2,113	2,113	2,113
4		1425445 Ontario Limited o/a Utilities Kingston	M12X015	Dawn to Parkway	-	5,000	5,000	5,000	5,000	5,000	5,000	5,000
5				Dawn to Parkway Total	13,435	13,435	13,435	13,435	13,435	13,435	13,435	13,435
6		1425445 Ontario Limited o/a Utilities Kingston Total			13,435	13,435	13,435	13,435	13,435	13,435	13,435	13,435
7		Ag Energy Co-operative Ltd.	M12151	Dawn to Parkway	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
8		Ag Energy Co-operative Ltd.	M12167	Dawn to Parkway	1,900	1,900	1,900	1,900	1,900	1,900	1,900	1,900
9				Dawn to Parkway Total	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
10		Ag Energy Co-operative Ltd. Total			3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
11		Bay State Gas Company dba Columbia Gas of Massachusetts	M12204	Dawn to Parkway	27,803	27,803	27,803	27,803	27,803	27,803	27,803	27,803
12				Dawn to Parkway Total	27,803	27,803	27,803	27,803	27,803	27,803	27,803	27,803
13		Bay State Gas Company d/b/a Columbia Gas of Massachusetts Total			27,803	27,803	27,803	27,803	27,803	27,803	27,803	27,803
14		Boston Gas Company d/b/a National Grid	M12197	Dawn to Parkway	9,282	9,282	9,282	9,282	9,282	9,282	9,282	9,282
15		Boston Gas Company d/b/a National Grid	M12199	Dawn to Parkway	2,158	2,158	2,158	2,158	2,158	2,158	2,158	2,158
16				Dawn to Parkway Total	11,440	11,440	11,440	11,440	11,440	11,440	11,440	11,440
17		Boston Gas Company d/b/a National Grid Total			11,440	11,440	11,440	11,440	11,440	11,440	11,440	11,440
18		BP Canada Energy Group ULC	M12087	Dawn to Parkway	20,000	20,000	-	-	-	-	-	-
19				Dawn to Parkway Total	20,000	20,000	-	-	-	-	-	-
20		BP Canada Energy Group ULC Total			20,000	20,000	-	-	-	-	-	-
21		Central Hudson Gas & Electric Corporation (a subsidiary of CH Energy Group, Inc.)	M12182	Dawn to Parkway	5,467	5,467	5,467	5,467	5,467	5,467	5,467	5,467
22		Central Hudson Gas & Electric Corporation (a subsidiary of CH Energy Group, Inc.)	M12195	Dawn to Parkway	10,792	10,792	10,792	10,792	10,792	10,792	10,792	10,792
23				Dawn to Parkway Total	16,259	16,259	16,259	16,259	16,259	16,259	16,259	16,259
24		Central Hudson Gas & Electric Corporation (a subsidiary of CH Energy Group, Inc.) Total			16,259	16,259	16,259	16,259	16,259	16,259	16,259	16,259
25		Colonial Gas Company d/b/a National Grid	M12198	Dawn to Parkway	6,475	6,475	6,475	6,475	6,475	6,475	6,475	6,475
26				Dawn to Parkway Total	6,475	6,475	6,475	6,475	6,475	6,475	6,475	6,475
27		Colonial Gas Company d/b/a National Grid Total			6,475	6,475	6,475	6,475	6,475	6,475	6,475	6,475
28		Connecticut Natural Gas Corporation	M12166	Dawn to Parkway	6,410	6,410	6,410	6,410	6,410	6,410	6,410	6,410
29		Connecticut Natural Gas Corporation	M12201	Dawn to Parkway	18,077	18,077	18,077	18,077	18,077	18,077	18,077	18,077
30		Connecticut Natural Gas Corporation	M12206	Dawn to Parkway	9,170	9,170	9,170	9,170	9,170	9,170	9,170	9,170
31		Connecticut Natural Gas Corporation	M12214	Dawn to Parkway	6,489	6,489	6,489	6,489	6,489	6,489	6,489	6,489
32				Dawn to Parkway Total	40,146	40,146	40,146	40,146	40,146	40,146	40,146	40,146
33		Connecticut Natural Gas Corporation Total			40,146	40,146	40,146	40,146	40,146	40,146	40,146	40,146
34		Consolidated Edison Company of New York, Inc. and Orange and Rockland Utilities, Inc.	M12162	Dawn to Kirkwall	31,746	31,746	31,746	-	-	-	-	-
35				Dawn to Kirkwall Total	31,746	31,746	31,746	-	-	-	-	-
36		Consolidated Edison Company of New York, Inc. and Orange and Rockland Utilities, Inc.	M12171	Dawn to Parkway	21,825	21,825	21,825	21,825	21,825	21,825	21,825	21,825
37				Dawn to Parkway Total	21,825	21,825	21,825	21,825	21,825	21,825	21,825	21,825
38		Consolidated Edison Company of New York, Inc. and Orange and Rockland Utilities, Inc. Total			53,571	53,571	53,571	21,825	21,825	21,825	21,825	21,825
39		Dynegy Gas Imports, LLC	M12170	Dawn to Kirkwall	38,306	38,306	-	-	-	-	-	-
40				Dawn to Kirkwall Total	38,306	38,306	-	-	-	-	-	-
41		Dynegy Gas Imports, LLC Total			38,306	38,306	-	-	-	-	-	-
42		Enbridge Gas Distribution Inc.	M12079	Dawn to Kirkwall	32,123	32,123	32,123	-	-	-	-	-
43		Enbridge Gas Distribution Inc.	M12175	Dawn to Kirkwall	35,806	35,806	35,806	-	-	-	-	-
44				Dawn to Kirkwall Total	67,929	67,929	67,929	-	-	-	-	-
45		Enbridge Gas Distribution Inc.	M12079	Dawn to Parkway	1,764,678	1,764,678	1,764,678	1,764,678	1,764,678	1,764,678	1,764,678	1,764,678
46		Enbridge Gas Distribution Inc.	M12080	Dawn to Parkway	106,000	106,000	106,000	106,000	106,000	106,000	106,000	106,000
47		Enbridge Gas Distribution Inc.	M12108	Dawn to Parkway	57,100	57,100	57,100	57,100	57,100	57,100	57,100	57,100
48		Enbridge Gas Distribution Inc.	M12125	Dawn to Parkway	10,692	10,692	10,692	10,692	10,692	10,692	10,692	10,692
49		Enbridge Gas Distribution Inc.	M12188	Dawn to Parkway	18,703	18,703	18,703	18,703	18,703	18,703	18,703	18,703
50		Enbridge Gas Distribution Inc.	M12X006	Dawn to Parkway	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
51				Dawn to Parkway Total	2,157,173	2,157,173	2,157,173	2,157,173	2,157,173	2,157,173	2,157,173	2,157,173
52		Enbridge Gas Distribution Inc. Total			2,225,102	2,225,102	2,225,102	2,157,173	2,157,173	2,157,173	2,157,173	2,157,173
53		EnergyNorth Natural Gas, Inc.	M12200	Dawn to Parkway	4,317	4,317	4,317	4,317	4,317	4,317	4,317	4,317
54				Dawn to Parkway Total	4,317	4,317	4,317	4,317	4,317	4,317	4,317	4,317
55		EnergyNorth Natural Gas, Inc. Total			4,317	4,317	4,317	4,317	4,317	4,317	4,317	4,317
56		Gaz Metro Limited Partnership	M12007D	Dawn to Parkway	21,021	21,021	21,021	21,021	21,021	21,021	21,021	21,021
57		Gaz Metro Limited Partnership	M12092	Dawn to Parkway	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
58		Gaz Metro Limited Partnership	M12109	Dawn to Parkway	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000

[illegible]



	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(g)	(g)	(g)	(g)
	Customer Name	Contract Identifier	Receipt/Delivery Point	1-Nov-13	1-Nov-14	1-Nov-15	1-Nov-16	1-Nov-17	1-Nov-18	1-Nov-19	1-Nov-20
120	<b>TransAlta Cogeneration, L.P. Total</b>			11,809	11,809	11,809	11,809	11,809	11,809	11,809	11,809
121	TransCanada PipeLines Limited	M12012	Dawn to Kirkwall	62,602	62,602	-	-	-	-	-	-
122	TransCanada PipeLines Limited	M12122	Dawn to Kirkwall	13,336	-	-	-	-	-	-	-
123	TransCanada PipeLines Limited	M12123	Dawn to Kirkwall	158,003	134,077	71,838	-	-	-	-	-
124			<b>Dawn to Kirkwall Total</b>	233,941	196,679	71,838	-	-	-	-	-
125	TransCanada PipeLines Limited	M12086	Dawn to Parkway	119,787	119,787	119,787	119,787	119,787	119,787	119,787	119,787
126	TransCanada PipeLines Limited	M12X004	Dawn to Parkway	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
127	TransCanada PipeLines Limited	M12X005	Dawn to Parkway	78,316	78,316	78,316	78,316	78,316	78,316	78,316	78,316
128	TransCanada PipeLines Limited	M12X013	Dawn to Parkway	62,695	62,695	62,695	62,695	62,695	62,695	62,695	62,695
129			<b>Dawn to Parkway Total</b>	310,798	310,798	310,798	310,798	310,798	310,798	310,798	310,798
130	<b>TransCanada PipeLines Limited Total</b>			544,739	507,477	382,636	310,798	310,798	310,798	310,798	310,798
131	TransCanada Power, a Division of TransCanada Energy Ltd.	M12131	Dawn to Parkway	132,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000
132			<b>Dawn to Parkway Total</b>	132,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000
133	<b>TransCanada Power, a Division of TransCanada Energy Ltd. Total</b>			132,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000
134	U.S. Steel Canada Inc.	M12085	Dawn to Parkway	17,351	17,351	17,351	17,351	17,351	17,351	17,351	17,351
135			<b>Dawn to Parkway Total</b>	17,351	17,351	17,351	17,351	17,351	17,351	17,351	17,351
136	<b>U.S. Steel Canada Inc. Total</b>			17,351	17,351	17,351	17,351	17,351	17,351	17,351	17,351
137	Vermont Gas Systems, Inc.	M12119	Dawn to Parkway	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
138	Vermont Gas Systems, Inc.	M12190	Dawn to Parkway	500	500	500	500	500	500	500	500
139			<b>Dawn to Parkway Total</b>	20,500	20,500	20,500	20,500	20,500	20,500	20,500	20,500
140	<b>Vermont Gas Systems, Inc. Total</b>			20,500	20,500	20,500	20,500	20,500	20,500	20,500	20,500
141	Yankee Gas Services Company	M12203	Dawn to Parkway	43,116	43,116	43,116	43,116	43,116	43,116	43,116	43,116
142	Yankee Gas Services Company	M12210	Dawn to Parkway	20,560	20,560	20,560	20,560	20,560	20,560	20,560	20,560
143	Yankee Gas Services Company	M12212	Dawn to Parkway	5,380	5,380	5,380	5,380	5,380	5,380	5,380	5,380
144			<b>Dawn to Parkway Total</b>	69,056	69,056	69,056	69,056	69,056	69,056	69,056	69,056
145	<b>Yankee Gas Services Company Total</b>			69,056	69,056	69,056	69,056	69,056	69,056	69,056	69,056
146	York Energy Centre LP	C10102	Dawn to Parkway	11,654	11,654	11,654	11,654	11,654	11,654	11,654	11,654
147	York Energy Centre LP	M12184	Dawn to Parkway	76,000	76,000	76,000	76,000	76,000	76,000	76,000	76,000
148			<b>Dawn to Parkway Total</b>	87,654	87,654	87,654	87,654	87,654	87,654	87,654	87,654
149	<b>York Energy Centre LP Total</b>			87,654	87,654	87,654	87,654	87,654	87,654	87,654	87,654
150	<b>Grand Total</b>			4,415,695	4,378,433	4,166,591	3,995,078	3,995,078	3,856,478	3,856,478	3,856,478

151 M12X contract capacities have been reflected in the Dawn to Parkway numbers, these contracts could also flow Dawn to Kirkwall

152 Union Gas forecasts that all Dawn - Kirkwall contracts expire after their current term and all Dawn - Parkway contract renew at current capacities

#### Future Contracts

	Customer Name	Contract Identifier	Receipt/Delivery Point	1-Nov-13	1-Nov-14	1-Nov-15	1-Nov-16	1-Nov-17	1-Nov-18	1-Nov-19	1-Nov-20
153	Enbridge	M12223	Dawn to Parkway	-	-	250,000	250,000	250,000	250,000	250,000	250,000
155	Enbridge	M12225	Dawn to Parkway	-	-	150,000	150,000	150,000	150,000	150,000	150,000
156			<b>Dawn to Parkway Total</b>	-	-	400,000	400,000	400,000	400,000	400,000	400,000
157	<b>Enbridge Total</b>					400,000	400,000	400,000	400,000	400,000	400,000
158	Gaz Metro	M12222	Dawn to Parkway	-	-	219,241	219,241	219,241	219,241	219,241	219,241
159	Gaz Metro	M12226	Dawn to Parkway	-	-	38,543	38,543	38,543	38,543	38,543	38,543
160			<b>Dawn to Parkway Total</b>	-	-	257,784	257,784	257,784	257,784	257,784	257,784
161	<b>Gaz Metro Total</b>					257,784	257,784	257,784	257,784	257,784	257,784
162	Vermont Gas Systems, Inc.	M12224	Dawn to Parkway		4,600	4,600	4,600	4,600	4,600	4,600	4,600
163	Vermont Gas Systems, Inc.	M12227	Dawn to Parkway		3,500	3,500	3,500	3,500	3,500	3,500	3,500
164			<b>Dawn to Parkway Total</b>	-	8,100	8,100	8,100	8,100	8,100	8,100	8,100
165	<b>Vermont Gas Systems, Inc. Total</b>			-	8,100	8,100	8,100	8,100	8,100	8,100	8,100
166	<b>Grand Total</b>			-	8,100	665,884	665,884	665,884	665,884	665,884	665,884

Dawn-Parkway and Dawn-Kirkwall Contract Capacity by Receipt/Delivery Point (GJ/d)  
November 1, 2013, November 1, 2014, November 1, 2015 and November 1, 2016

Filed: 2014-01-30  
EB-2013-0365  
Exhibit B11.1  
Attachment 2

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Customer Name	Contract Identifier	Receipt/Delivery Point	1-Nov-13	1-Nov-14	1-Nov-15	1-Nov-16
2	TransCanada PipeLines Limited	M12012	Dawn to Kirkwall	62,602	62,602	-	-
3	Enbridge Gas Distribution Inc.	M12079	Dawn to Kirkwall	32,123	-	-	-
4	Enbridge Gas Distribution Inc.	M12079A	Dawn to Kirkwall	-	32,123	-	-
5	KeySpan Gas East Corporation d/b/a National Grid	M12116	Dawn to Kirkwall	138,600	138,600	138,600	138,600
6	TransCanada PipeLines Limited	M12122	Dawn to Kirkwall	13,336	-	-	-
7	TransCanada PipeLines Limited	M12123	Dawn to Kirkwall	158,003	158,003	158,003	-
8	Thorold CoGen L.P. by its General Partner Northland Power Thorold Cogen GP Inc.	M12129	Dawn to Kirkwall	49,500	49,500	49,500	49,500
9	Consolidated Edison Company of New York, Inc. and Orange and Rockland Utilities, Inc.	M12162	Dawn to Kirkwall	31,746	31,746	31,746	-
10	Dynegy Gas Imports, LLC	M12170	Dawn to Kirkwall	38,306	38,306	-	-
11	Enbridge Gas Distribution Inc.	M12175	Dawn to Kirkwall	35,806	35,806	35,806	-
12	National Fuel Gas Distribution Corporation	M12196	Dawn to Kirkwall	10,791	10,791	10,791	10,791
13	National Fuel Gas Distribution Corporation	M12211	Dawn to Kirkwall	15,904	15,904	15,904	15,904
14			<b>Dawn to Kirkwall Total</b>	<b>586,717</b>	<b>573,381</b>	<b>440,350</b>	<b>214,795</b>
15	York Energy Centre LP	C10102	Dawn to Parkway	11,654	11,654	-	-
16	Gaz Metro Limited Partnership	M12007D	Dawn to Parkway	21,021	21,021	21,021	-
17	1425445 Ontario Limited o/a Utilities Kingston	M12077	Dawn to Parkway	11,322	6,322	6,322	-
18	Enbridge Gas Distribution Inc.	M12079	Dawn to Parkway	1,764,678	-	-	-
19	Enbridge Gas Distribution Inc.	M12079B	Dawn to Parkway	-	1,764,678	1,764,678	1,764,678
20	Enbridge Gas Distribution Inc.	M12080	Dawn to Parkway	106,000	106,000	106,000	106,000
21	TransAlta Cogeneration, L.P.	M12081	Dawn to Parkway	11,809	11,809	11,809	-
22	U.S. Steel Canada Inc.	M12085	Dawn to Parkway	17,351	17,351	17,351	17,351
23	TransCanada PipeLines Limited	M12086	Dawn to Parkway	119,787	119,787	119,787	-
24	BP Canada Energy Group ULC	M12087	Dawn to Parkway	20,000	20,000	20,000	20,000
25	The Corporation of the City of Kitchener	M12090	Dawn to Parkway	4,000	4,000	4,000	-
26	Gaz Metro Limited Partnership	M12092	Dawn to Parkway	35,000	35,000	35,000	-
27	Enbridge Gas Distribution Inc.	M12108	Dawn to Parkway	57,100	57,100	57,100	57,100
28	Gaz Metro Limited Partnership	M12109	Dawn to Parkway	65,000	65,000	65,000	65,000
29	Goreway Station Partnership by its managing partner Goreway Power Station Holdings ULC	M12110	Dawn to Parkway	140,000	140,000	140,000	140,000
30	Vermont Gas Systems, Inc.	M12119	Dawn to Parkway	20,000	20,000	20,000	20,000
31	Greater Toronto Airports Authority	M12120	Dawn to Parkway	7,500	7,500	7,500	7,500
32	Enbridge Gas Distribution Inc.	M12125	Dawn to Parkway	10,692	10,692	10,692	-
33	St. Lawrence Gas Company, Inc.	M12126	Dawn to Parkway	10,785	10,785	10,785	-
34	1425445 Ontario Limited o/a Utilities Kingston	M12127	Dawn to Parkway	2,113	2,113	2,113	-
35	Portlands Energy Centre L.P. ,by its General Partner, Portlands Energy Centre Inc.	M12130	Dawn to Parkway	100,000	100,000	100,000	100,000
36	TransCanada Power, a Division of TransCanada Energy Ltd.	M12131	Dawn to Parkway	132,000	132,000	132,000	132,000
37	Gaz Metro Limited Partnership	M12132	Dawn to Parkway	52,343	52,343	52,343	-
38	Ag Energy Co-operative Ltd.	M12151	Dawn to Parkway	1,600	1,600	1,600	1,600
39	GreenField Ethanol Inc.	M12156	Dawn to Parkway	3,000	3,000	3,000	3,000
40	KeySpan Gas East Corporation d/b/a National Grid	M12163	Dawn to Parkway	43,837	43,837	43,837	-
41	The Narragansett Electric Company d/b/a National Grid	M12164	Dawn to Parkway	1,081	1,081	1,081	-
42	The Brooklyn Union Gas Company d/b/a National Grid NY	M12165	Dawn to Parkway	44,019	44,019	44,019	-
43	Connecticut Natural Gas Corporation	M12166	Dawn to Parkway	6,410	6,410	6,410	-
44	Ag Energy Co-operative Ltd.	M12167	Dawn to Parkway	1,900	1,900	1,900	1,900
45	Consolidated Edison Company of New York, Inc. and Orange and Rockland Utilities, Inc.	M12171	Dawn to Parkway	21,825	21,825	21,825	-
46	Gaz Metro Limited Partnership	M12172	Dawn to Parkway	22,908	22,908	22,908	-

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	<b>Customer Name</b>	<b>Contract Identifier</b>	<b>Receipt/Delivery Point</b>	<b>1-Nov-13</b>	<b>1-Nov-14</b>	<b>1-Nov-15</b>	<b>1-Nov-16</b>
47	Gaz Metro Limited Partnership	M12176	Dawn to Parkway	88,728	88,728	88,728	-
48	Central Hudson Gas & Electric Corporation (a subsidiary of CH Energy Group, Inc.)	M12182	Dawn to Parkway	5,467	5,467	5,467	-
49	York Energy Centre LP	M12184	Dawn to Parkway	76,000	76,000	76,000	76,000
50	Niagara Mohawk Power Corporation d/b/a National Grid	M12186	Dawn to Parkway	55,123	55,123	55,123	-
51	Enbridge Gas Distribution Inc.	M12188	Dawn to Parkway	18,703	18,703	18,703	-
52	Vermont Gas Systems, Inc.	M12190	Dawn to Parkway	500	500	500	500
53	The Brooklyn Union Gas Company d/b/a National Grid NY	M12193	Dawn to Parkway	12,953	12,953	12,953	12,953
54	KeySpan Gas East Corporation d/b/a National Grid	M12194	Dawn to Parkway	17,162	17,162	17,162	17,162
55	Central Hudson Gas & Electric Corporation (a subsidiary of CH Energy Group, Inc.)	M12195	Dawn to Parkway	10,792	10,792	10,792	10,792
56	Boston Gas Company d/b/a National Grid	M12197	Dawn to Parkway	9,282	9,282	9,282	9,282
57	Colonial Gas Company d/b/a National Grid	M12198	Dawn to Parkway	6,475	6,475	6,475	6,475
58	Boston Gas Company d/b/a National Grid	M12199	Dawn to Parkway	2,158	2,158	2,158	2,158
59	EnergyNorth Natural Gas, Inc.	M12200	Dawn to Parkway	4,317	4,317	4,317	4,317
60	Connecticut Natural Gas Corporation	M12201	Dawn to Parkway	18,077	18,077	18,077	18,077
61	The Southern Connecticut Gas Company	M12202	Dawn to Parkway	34,950	34,950	34,950	34,950
62	Yankee Gas Services Company	M12203	Dawn to Parkway	43,116	43,116	43,116	43,116
63	Bay State Gas Company dba Columbia Gas of Massachusetts	M12204	Dawn to Parkway	27,803	27,803	27,803	27,803
64	Northern Utilities, Inc.	M12205	Dawn to Parkway	6,333	6,333	6,333	6,333
65	Connecticut Natural Gas Corporation	M12206	Dawn to Parkway	9,170	9,170	9,170	9,170
66	The Southern Connecticut Gas Company	M12207	Dawn to Parkway	13,970	13,970	13,970	13,970
67	The Brooklyn Union Gas Company d/b/a National Grid NY	M12208	Dawn to Parkway	30,217	30,217	30,217	30,217
68	KeySpan Gas East Corporation d/b/a National Grid	M12209	Dawn to Parkway	22,772	22,772	22,772	22,772
69	Yankee Gas Services Company	M12210	Dawn to Parkway	20,560	20,560	20,560	20,560
70	Yankee Gas Services Company	M12212	Dawn to Parkway	5,380	5,380	5,380	5,380
71	The Southern Connecticut Gas Company	M12213	Dawn to Parkway	9,735	9,735	9,735	9,735
72	Connecticut Natural Gas Corporation	M12214	Dawn to Parkway	6,489	6,489	6,489	6,489
73	Suncor Energy Products Partnership Produits Suncor Energie, S.E.N.C.	M12217	Dawn to Parkway	15,000	15,000	-	-
74	TransCanada PipeLines Limited	M12X004	Dawn to Parkway	50,000	50,000	50,000	50,000
75	TransCanada PipeLines Limited	M12X005	Dawn to Parkway	78,316	78,316	78,316	78,316
76	Enbridge Gas Distribution Inc.	M12X006	Dawn to Parkway	200,000	200,000	200,000	200,000
77	TransCanada PipeLines Limited	M12X013	Dawn to Parkway	62,695	62,695	62,695	62,695
78	1425445 Ontario Limited o/a Utilities Kingston	M12X015	Dawn to Parkway	-	5,000	5,000	5,000
79			<b>Dawn to Parkway Total</b>	3,828,978	3,828,978	3,802,324	3,220,351
80			<b>Grand Total</b>	4,415,695	4,402,359	4,242,674	3,435,146

UNION GAS LIMITED

Answer to Interrogatory from  
TransCanada Pipelines Limited ("TCPL")

Reference: i) Application, Exhibit A, Tab 4, Section 6.2.2 (page 25 of 46)

Preamble: Union discusses a new capacity open season for Dawn-Parkway and Kirkwall-Parkway capacity for service commencing Nov.01, 2016. It is TCPLs' understanding that this open season closes on Jan. 22, 2014. Union Gas states that it expects to award capacity on or before February 4, 2014.

- a) When available, please provide a summary of the bids received and the capacity awarded. The summary should include the amount of new capacity requested for each path by start date and expiry date.

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**Response:**

- a) Union's Dawn-Parkway and Kirkwall-Parkway new capacity open season was announced November 21, 2013. This open season is binding and closed on January 22, 2014. Capacity will be awarded in February 2014 and results will not be announced publicly, per the Board's Storage and Transportation Access Rules, until binding precedent agreements have been signed, financial assurances have been received and all conditions precedents have been waived for all contracts. If facilities are required, contract specifics and costs of these facilities will be presented in the associated facilities application. A reverse open season is in the process of being coordinated and the results will be announced with the open season results.

UNION GAS LIMITED

Answer to Interrogatory from  
TransCanada Pipelines Limited ("TCPL")

Reference: i) Application, Exhibit A, Tab 4, Section 6.2.1 (page 25 of 46)

Preamble: Union discusses its in-franchise customers who hold M12 Dawn-Parkway capacity. Union also states that there are currently seven customers with a total delivery obligation of 184 TJ/d holding a total of 187 TJ/d of M12 Dawn-Parkway capacity and that Union expects these customers to continue to hold their M12 capacity and voluntarily turn it back to Union as the Parkway Obligation transition to Dawn occurs, as depicted in Table 1.

- a) Please identify those seven customers and their associated Dawn-Parkway M12 capacity
- b) Is it Union's proposal that, on April 01, 2014, those seven customers will be allowed to reduce their Parkway Obligation by 38% and be allowed to reduce their M12 capacity by the same volume. If this is not Union's proposal, please explain in further detail.
- c) Please identify the reduction in volume of M12 and Parkway Obligation in GJ/d that each of the seven customers identified in (a) above will be allowed to shed on April 01, 2014.
- d) Please identify what M12 Dawn to Parkway capacity Union will make available as existing capacity once the in-franchise customers are relieved of their obligation to deliver at Parkway.
- e) For what in-service date will Union make this capacity available?
- f) Under what terms and conditions will Union be making this capacity available?

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**Response:**

- a) Please see the response at Exhibit B1.5.
- b) Union's proposal is to reduce the total Parkway delivery obligation by 38% on the implementation date. As of the implementation date, those in-franchise customers holding M12 capacity to meet their Parkway delivery obligation will have an option to reduce their M12 capacity by an amount equal to 36.1% of their Parkway Obligated DCQ. The first 13,735 GJ/d will be used to completely transition 294 contracts 100% to Dawn.

- c) While Union's posting of M12 contracts is public, customer specific obligation quantities are confidential and have not been provided. Please refer to the response at B1.5 for the M12 contract information.
- d) None. As each in-franchise M12 holder turns back their capacity and their obligation moves to Dawn, Union will use the turned back capacity to move that customer's gas from Dawn to Parkway.
- e) Please see the response to part d).
- f) Please see the response to part d).

UNION GAS LIMITED

Answer to Interrogatory from  
TransCanada Pipelines Limited ("TCPL")

Reference: i) Union's Response to TCPL Interrogatory Exhibit J27.11(a), EB-2005-0520  
ii) Application, Schedule 1, 2015 Cost Allocation by Rate Class Including the  
Decrease of 66 TJ/d in Parkway Obligation Delivery and M12 Demands.  
iii) Application, Schedule 5, 2019 Cost Allocation by Rate Class including the  
Decrease of 379 TJ/d in Parkway Delivery Obligation and M12 Demands

Preamble: TransCanada seeks information to better understand the allocation units  
underpinning the reduction in costs allocated to ex-franchise rate classes of \$2.4  
million in 2015 (reference ii) and \$15.4 million in 2019 (reference iii).

- a) Please provide the commodity-kilometers used to determine the reduction in costs allocated to ex-franchise customers in reference ii) in the same format as reference i).
- b) Please provide the commodity-kilometers used to determine the reduction in costs allocated to ex-franchise customers in reference iii) in the same format as reference i).

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**Response:**

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

Dawn-Parkway Allocation Units  
Decrease of 66 TJ/d in Parkway Obligation Delivery and M12 Demands (1)  
Winter 2015/16

Line No.	Particulars	Demand (10 <sup>6</sup> m <sup>3</sup> /d) (a)	Kilometre Post (km) (b)	Commodity Kilometre ((10 <sup>6</sup> m <sup>3</sup> /d)*km) (c)
<u>Union Demands Supplied by Dawn</u>				
1	Forest, Watford	0.184	44.01	8.094
2	Strathroy	0.204	54.93	11.228
3	Byron	2.935	73.05	214.408
4	Hensall	0.515	85.74	44.161
5	London N	2.542	90.35	229.659
6	Hensall	0.242	85.74	20.754
7	St Mary's	0.169	103.93	17.575
8	Stratford	0.946	121.45	114.898
9	Beachville	1.372	121.45	166.677
10	Oxford	1.129	142.92	161.410
11	Owen Sound Line	6.206	159.39	989.229
12	Cambridge	1.828	175.14	320.219
13	Brantford	2.577	175.14	451.394
14	Guelph	2.177	183.67	399.817
15	Kirkwall- Dominion	2.130	188.67	401.787
16	Gate 3	1.024	188.67	193.188
17	Gates 1 & 2	6.757	199.25	1346.358
18	Milton	0.202	218.09	44.126
19	Halton Hills (dist'n)	0.000	221.61	0.000
20	HH Power Plant	0.000	221.61	0.000
21		<u>33.141</u>		<u>5,134.980</u>
22	Northern & Eastern Areas Adjustment	<u>(5.208)</u>	228.94	<u>(1,192.229)</u>
23	Total Union Demands Supplied by Dawn	<u>27.934</u>		<u>3,942.752</u>
<u>Union Demands Supplied by Parkway</u>				
24	Milton	1.684	10.85	18.271
25	Halton Hills (dist'n)	0.222	7.33	1.630
26	HH Power Plant	3.480	7.33	25.508
27	Burlington	1.433	0.00	0.000
28	Bronte	2.225	0.00	0.000
29	Greenbelt	0.929	0.00	0.000
30		<u>9.974</u>		<u>45.409</u>
31	Northern & Eastern Areas Adjustment	<u>5.208</u>	0.00	<u>0.000</u>
32	Total Union Demands Supplied by Parkway	<u>15.182</u>		<u>45.409</u>
<u>Union Demands Supplied by Kirkwall</u>				
33	Gate 3	<u>0.559</u>	0.00	<u>0.000</u>
34		<u>0.559</u>		<u>0.000</u>
35	Total Union	<u>43.674</u>		<u>3,988.161</u>
<u>Storage &amp; Transportation Contracts</u>				
36	Dawn to Parkway	112.003	228.94	25,642.044
37	Dawn to Kirkwall	12.906	188.67	2,434.883
38	Kirkwall to Parkway	6.973	40.27	280.822
39	Total S & T	<u>131.882</u>		<u>28,357.749</u>
40	Northern & Eastern Areas	<u>8.810</u>	228.940	<u>2017.019</u>
41	Total Union and S&T	<u>184.367</u>		<u>34,362.929</u>

Note:

- (1) 2013 Board-approved including the Brantford to Kirkwall Pipeline and Parkway D Compressor Project Rate M12 demands of 363,000 GJ/d and Union North in-franchise demands of 70,000 GJ/d.



Dawn-Parkway Allocation Units  
Decrease of 379 TJ/d in Parkway Obligation Delivery and M12 Demands (1)  
Winter 2019/20

Line No.	Particulars	Demand (10 <sup>6</sup> m <sup>3</sup> /d) (a)	Kilometre Post (km) (b)	Commodity Kilometre ((10 <sup>6</sup> m <sup>3</sup> /d)*km) (c)
<u>Union Demands Supplied by Dawn</u>				
1	Forest, Watford	0.184	44.01	8.094
2	Strathroy	0.204	54.93	11.228
3	Byron	2.935	73.05	214.408
4	Hensall	0.515	85.74	44.161
5	London N	2.542	90.35	229.659
6	Hensall	0.242	85.74	20.754
7	St Mary's	0.169	103.93	17.575
8	Stratford	0.946	121.45	114.898
9	Beachville	1.372	121.45	166.677
10	Oxford	1.129	142.92	161.410
11	Owen Sound Line	6.206	159.39	989.229
12	Cambridge	1.828	175.14	320.219
13	Brantford	2.577	175.14	451.394
14	Guelph	2.177	183.67	399.817
15	Kirkwall- Dominion	2.130	188.67	401.787
16	Gate 3	1.024	188.67	193.188
17	Gates 1 & 2	6.757	199.25	1346.358
18	Milton	1.886	218.09	411.389
19	Halton Hills (dist'n)	0.222	221.61	49.267
20	HH Power Plant	1.177	221.61	260.940
21		<u>36.225</u>		<u>5,812.451</u>
22	Northern & Eastern Areas Adjustment	<u>0.000</u>	228.94	<u>0.000</u>
23	Total Union Demands Supplied by Dawn	<u>36.225</u>		<u>5,812.451</u>
<u>Union Demands Supplied by Parkway</u>				
24	Milton	0.000	10.85	0.000
25	Halton Hills (dist'n)	0.000	7.33	0.000
26	HH Power Plant	2.303	7.33	16.878
27	Burlington	1.433	0.00	0.000
28	Bronte	2.225	0.00	0.000
29	Greenbelt	0.929	0.00	0.000
30		<u>6.890</u>		<u>16.878</u>
31	Northern & Eastern Areas Adjustment	<u>0.000</u>	0.00	<u>0.000</u>
32	Total Union Demands Supplied by Parkway	<u>6.890</u>		<u>16.878</u>
<u>Union Demands Supplied by Kirkwall</u>				
33	Gate 3	<u>0.559</u>	0.00	<u>0.000</u>
34		<u>0.559</u>		<u>0.000</u>
35	Total Union	<u>43.674</u>		<u>5,829.329</u>
<u>Storage &amp; Transportation Contracts</u>				
36	Dawn to Parkway	110.520	228.94	25,302.425
37	Dawn to Kirkwall	6.098	188.67	1,150.427
38	Kirkwall to Parkway	6.973	40.27	280.822
39	Total S & T	<u>123.591</u>		<u>26,733.674</u>
40	Northern & Eastern Areas	<u>8.810</u>	228.940	<u>2017.019</u>
41	Total Union and S&T	<u>176.075</u>		<u>34,580.022</u>

Note:

- (1) 2013 Board-approved including the Brantford to Kirkwall Pipeline and Parkway D Compressor Project Rate M12 demands of 363,000 GJ/d and Union North in-franchise demands of 70,000 GJ/d.

UNION GAS LIMITED

Answer to Interrogatory from  
TransCanada Pipelines Limited ("TCPL")

Reference: i) Application, Exhibit A, Tab 4, Page 4 of 46, Table 1  
ii) Application, Schedule 8, M12/M12-X/C1 Transportation Demand Charges  
Including Parkway Delivery Obligation & M12 Demand Changes  
iii) Application, Exhibit A, Tab 4, Page 4 of 46, line 10-11  
iv) Application, Exhibit A, Tab 4, page 25 of 46, line 2

Preamble: TransCanada seeks to better understand Union's Dawn-Kirkwall turn-back forecast.

- a) Please provide a description of any changes and impacts Union expects to its Parkway Obligation Proposal if the forecasted ex-franchise turn-back volumes in reference i) do not materialize, including the impact on the reduction in cost to ex-franchise customers of \$15.4 million (reference iii).
- b) Please reproduce the table in reference i) to reflect the changes and impacts Union expects to its Parkway Obligation Proposal if forecasted ex-franchise turn-back does not materialize as described in a).
- c) Please reproduce the table in reference ii) to reflect the changes and impacts Union expects to its Parkway Obligation Proposal if forecasted ex-franchise turn-back does not materialize as described in a). (i.e.: add an extra column titled, "Year 2018 Parkway Projects including 2019 Parkway Delivery Obligation assuming no ex-franchise turnback").
- d) Please reproduce the table in reference ii) to include the cost of building incremental facilities which are needed assuming Union's recently announced open season (reference iv) is fully subscribed. (i.e.: recalculate columns b) and c) to include the cost of incremental facilities if Union's open season is fully subscribed).

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**Response:**

- a) If Union does not receive the 146 TJ/d of turnback in 2016-17, Union will maintain the initial reduction in Parkway delivery obligation and manage the shortfall. Please see the response at Exhibit B7.5. Any delay in the forecasted Dawn-Kirkwall capacity turnback in excess of 146 TJ/day will result in a corresponding delay in the Parkway delivery obligation transition to Dawn and the associated cost allocation and rate design impacts. If M12 customers do not turn back the Dawn to Kirkwall capacity, there would be no reduction to M12 costs.

b)

**Parkway Obligation Changes 2014-2019+**  
(TJ/day)

Line No.	Particulars	Apr-14	Nov-15	Nov-16	Nov-17	Nov-18	Nov-19+
1	Direct Purchase Parkway Obligation before	564	352	352	352	352	352
2	Temporary/Shortfall Capacity	-146	0	0	0	0	0
3	Ex-Franchise M12 Dawn-Kirkwall turnback *	0	0	0	0	0	0
4	In-Franchise M12 Dawn-Parkway turnback	-66	0	0	0	0	-118
5	Surplus Required	0	0	0	0	0	-234
6	Direct Purchase Parkway Obligation before	352	352	352	352	352	0
7	Annual Reduction	212	0	0	0	0	352
8	Cumulative Direct Purchase Obligation reduction * Dawn-Parkway equivalent capacity	38%	38%	38%	38%	38%	100%

c) Please see Attachment 1, column f).

d) Union cannot provide the information requested. Please see the response at Exhibit B11.2.

UNION GAS LIMITED  
M12/M12-X/C1 Transportation Demand Charges including Parkway Delivery Obligation & M12 Demands Changes

Line No.	Services	EB-2011-0210 Rate Order (\$/GJ/day) (1) (a)	Year 2018 Parkway Projects (\$/GJ/day) (2) (b)	Year 2018 Parkway Projects including 2019 Parkway Delivery Obligation (\$/GJ/day) (3) (c)	Year 2019 Comparison of Parkway Projects including Parkway Delivery Obligation and M12		Year 2018 Parkway Projects including 2019 Parkway Delivery Obligation Assuming no Ex-franchise turnback (\$/GJ/day) (4) (f)
					Difference (d) = (c - b)	% Change (e) = (d / b)	
1	M12/C1 Dawn to Kirkwall	0.066	0.077	0.076	-0.001	-1.2%	0.076
2	M12/C1 Dawn to Parkway	0.078	0.091	0.090	-0.001	-1.2%	0.091
3	M12/C1 Kirkwall to Parkway	0.012	0.015	0.014	0.000	-1.2%	0.015
4	C1 Parkway to Kirkwall	0.019	0.023	0.022	0.000	-1.2%	0.023
5	C1 Kirkwall to Dawn	0.034	0.040	0.040	0.000	-1.2%	0.040
6	C1 Parkway to Dawn	0.019	0.023	0.022	0.000	-1.2%	0.023
7	M12-X	0.097	0.114	0.113	-0.001	-1.2%	0.114

Notes:

(1) EB-2011-0210, Appendix A, Pages 14-16, column (c), effective January 1, 2013.

(2) Parkway Projects include Parkway West Project & Brantford to Kirkwall and Parkway D Compressor Project.

(3) 2018 Parkway Delivery Obligation and M12 Demand Decrease = 379 TJ.

(4) 2018 Parkway Delivery Obligation = 212 TJ and M12 Demand Decrease = 66 TJ.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 1, page 6

DSM Costs Included in 2014 Rates

At Exhibit A, Tab 1 page 6 Union sets out the following with respect to the inclusion of DSM amounts in 2014 rates:

4.2 DSM Budget Changes

Consistent with the Board-approved Agreement filed in Union's 2012-2014 DSM Proceeding (EB-2011-0327), Union proposes to include a DSM budget of \$32.049 million in 2014 rates. This represents an increase of \$0.408 million based on an inflation factor of 1.29% multiplied by the DSM budget of \$31.641 million included in 2013 rates. Union has allocated the 2014 DSM program costs to rates based on the planned expenditures by rate class in 2014 with the exception of the program costs attributable to Low-income DSM programming. Low-income DSM program costs are recovered from all rate classes in proportion to the amount of rate base each rate class is allocated in Union's Board-approved cost study. The allocation to rate classes can be found at Working Papers, Schedule 11.

At Working Papers, Schedule 11, Union sets out the calculation of the of the DSM Budget to be included in 2014 rates for each rate class, beginning from an 2013 Approved DSM Budget which is then escalated using the Inflation Factor as set out in the Board-approved Agreement in EB-2011-0327.

DSM Impacts

- a) Please confirm that the DSM Budgets that are included in 2014 rates are exclusive of any SSM, LRAM, DSMVA, or any other amounts other than the Board approved (by rate class) 2014 DSM Budget. If that is not the case, please describe how such amounts have impacted on the 2014 DSM Budget amounts to be included in rates on a rate class by rate class basis.
- b) Please confirm that amounts other than the 2014 DSM Budget, including but not limited to amounts relating to SSM, LRAM and the DSMVA, whether related to 2014 or to years prior to 2014, have been or will be determined in proceedings other than this rate proceeding, and to the extent such amounts have been or will be found to be owing to or owed by ratepayers they have been or will be calculated and refunded/recovered outside of base rates. If that is not the case, please describe how such amounts have impacted on the calculation of the 2014

DSM Budget to be included in 2014 rates on a rate class by rate class basis.

- c) Please expand Working Papers, Schedule 11 to show the Calculation of the 2013 DSM Budget as it was included in 2013 rates, the 2012 DSM Budget as it was included in 2012 rates, the 2011 DSM Budget as it was included in 2011 rates, the 2010 DSM Budget as it was included in 2010 rates, the 2009 DSM Budget as it was included in 2009 rates, the 2008 DSM Budget as it was included in 2008 rates and the 2007 DSM Budget as it was included in 2007 rates, all on a rate class by rate class basis. For each year in the expanded Schedule please indicate a reference for the OEB approval for the DSM Budget and the allocation of that Budget to each rate class.

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**Response:**

- a) Confirmed.
- b) Confirmed.
- c) Please see Attachment 1.

UNION GAS LIMITED  
DSM Amounts in Rates by Rate Class

Line No.	Particulars (\$000's)	2007 (a)	2008 (b)	2009 (c)	2010 (d)	2011 (e)	2012 (f)	2013 (g)	2014 (h)
	<u>Union North</u>								
1	Rate 01	1,626	1,788	1,967	2,164	2,380	4,188	3,732	3,780
2	Rate 10	1,402	1,542	1,696	1,866	2,053	1,279	1,186	1,202
3	Rate 20	1,009	1,110	1,221	1,343	1,477	968	974	987
4	Rate 100	1,622	1,785	1,963	2,159	2,375	1,456	1,798	1,821
5	Total Union North	5,659	6,225	6,847	7,532	8,285	7,891	7,690	7,789
	<u>Union South</u>								
6	Rate M1	5,417	5,958	6,554	7,209	7,930	13,058	10,451	10,585
7	Rate M2	2,244	2,469	2,716	2,987	3,286	3,587	3,896	3,946
8	Rate M4	1,840	2,024	2,226	2,448	2,693	1,356	1,607	1,628
9	Rate M5A	-	-	-	-	-	1,430	2,683	2,717
10	Rate M7	699	769	846	930	1,023	650	906	917
11	Rate T1	1,142	1,256	1,381	1,519	1,671	2,984	1,801	1,824
12	Rate T2	-	-	-	-	-	-	2,609	2,642
13	Total Union South	11,342	12,476	13,723	15,095	16,604	23,064	23,951	24,260
14	Total Union (line 5 + line 13)	17,001	18,701	20,570	22,627	24,890	30,954	31,641	32,049
15	OEB Docket	EB-2005-0520	EB-2007-0606	EB-2008-0220	EB-2009-0275	EB-2010-0148	EB-2011-0025	EB-2011-0210	EB-2013-0365

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 1, page 6

**Change in Allocation of Costs to M4, M5 (Firm) and M5 (Interruptible) Rate Classes**

Attached to this interrogatory are three documents (found in Schedule 1 to these IR's):

Attachment A: A comparison prepared by OGVG of the allocation of Rate Base amounts and Revenue Requirement amounts to the M5 (Firm), M5 (Interruptible) and M4 Classes as between the evidence in EB-2005-0520 Exhibit G3, Tab 2, Schedule 2 and the evidence in EB-2011-0210 Exhibit G3, Tab 2, Schedule 2.

Attachment B: A table comparing the revenue requirement allocated to the M5 rate classes (both Firm and Interruptible) as between EB-2005-0520 and EB-2011-0210, with comments explaining the drivers of material changes in allocated amounts, provided to OGVG by Union Gas in response to concerns about the changes in allocated amounts over the course of the 2007 to 2013 rate years.

Attachment C: A series of questions and responses between OGVG and Union Gas following up on the issue of the changes in allocated amounts in the M4 and M5 (both interruptible and Firm) rate classes between the 2007 and 2013 rate years.

These documents were exchanged between OGVG and Union Gas in an effort to help OGVG understand the changes in allocation of rate base and revenue requirement amounts within the M5 (Firm), M5 (Interruptible) and M4 classes between the 2007 and 2013 rate years.

Increased Allocation to M5 Rate Class

- a) Please confirm that Attachment B is an accurate comparison of the M5 (both Firm and Interruptible) rate classes as between the 2007 and 2013 rate classes. If there are any changes required in order to make the Attachment accurate please provide an updated copy.
- b) Please provide a table in the form similar to Attachment B for the M4 rate class.
- c) Please confirm that the responses provided by Union Gas at Attachment C are accurate. If there are any changes required in order to make the Attachment accurate please provide an updated copy.
- d) At attachment 1 the Responses in Attachment C, line 4, although the table shows a 0% change in the amount of "Other Rate Base" amounts allocated to the M5 rate classes when taken together, there is a material shift in the costs as between the Firm and Interruptible classes. Please describe the driver of this shift in allocation (or the causes of the increase in one rate class and the decrease in the other if the changes are not related to a shift between the two



classes).

- e) OGVG understands from the responses in Attachment C that the only change in allocation methodology that affected the allocation of costs to the M4 and M5 (both Firm and Interruptible) rate classes was the change in the service replacement cost allocator, and that the remaining changes relate either to:
- i) changes in distribution design day demands,
  - ii) changes in the forecast number of customers within the classes,
  - iii) changes to the forecast delivery volumes, or
  - iv) increases in the amounts being allocated (including a material increase related to the DSM Program costs being allocated to the M5 rate class).

Using the changes in i) through iv) and any other factors that we may have not described, please show the calculations that reconcile the significant increase in rate base allocated and revenue requirement attributed to the M5 rate class and the resulting rates.

---

**Response:**

- a) Confirmed.
- b) Please see Attachment 1.
- c) Confirmed.
- d) The increase in other rate base (i.e. excluding distribution rate base) allocated to interruptible Rate M5 is primarily driven by the increase in the number of interruptible Rate M5 customers, delivery volumes and design day demands. The decrease in other rate base allocated to firm Rate M5 is primarily driven by the decrease in the number of firm Rate M5 customers, delivery volumes and design day demands. Union described the changes in Rate M5 customer composition in its responses to OGVG in October 2013 (per OGVG's Attachment C).

Please see Attachment 2 for a detailed comparison of the 2007 and 2013 Board-approved rate base for interruptible and firm Rate M5.

The change in allocation to interruptible and firm Rate M5 in storage net plant, transmission net plant, gas in storage working capital and balancing gas is primarily driven by the increase in the interruptible Rate M5 design day demands and the decrease in the firm Rate M5 design day demands.

General plant and the other components of working capital are allocated in proportion to other net plant and O&M. Therefore, the increase in interruptible Rate M5 and the decrease to firm

Rate M5 is driven by the allocation of other costs in the cost allocation study, which has been previously described in Union's response to OGVG in October 2013 (per OGVG's Attachment C).

- e) Union provided OGVG with a comprehensive analysis in October 2013 of the cost allocation drivers in 2013 resulting in an increase to the costs allocated to interruptible and firm Rate M5, as compared to the 2007 Board-approved cost allocation study. Included in the response are comparisons of the factors that contributed to the increase in allocated costs between 2007 and 2013.

Please see Attachment 3 for a summary of the cost changes in Rate M5 provided in October 2013. The attachment compares the 2013 Board-approved revenue requirement to the 2007 Board-approved revenue requirement. Union has identified the following cost increases to Rate M5.

i) Union South Distribution Plant, Depreciation Expense and Operating Expenses

The Rate M5 allocation of Union South distribution plant, depreciation expense, and operating expenses has increased by more than 50 percent since the 2007 cost allocation study (Attachment 3, line 3, line 9 and line 15).

The increase in these distribution costs is primarily driven by the increase in the allocation of distribution-demand related costs to Rate M5. The total Rate M5 Union South distribution net plant increased by \$13.396 million, of which \$12.876 million is demand-related (Attachment 3, column i), line 1 and line 3). The total Rate M5 Union South distribution depreciation expense and operating expenses increased by \$0.727 million and \$0.285 million respectively, of which \$0.702 million and \$0.235 million is demand-related (Attachment 3, column i), line 7, line 9, line 12 and line 15).

The Union South distribution demand-related costs are allocated to Union South in-franchise rate classes in proportion to the distribution design day demands. The 2007 and 2013 interruptible Rate M5 design day demands have increased from 2,607  $10^3\text{m}^3$  to 3,755  $10^3\text{m}^3$  per day. As a result of this increase, the Rate M5 portion of distribution design day demands increased from 5% to 8%. The change in the distribution design day demands from the 2007 to the 2013 Board approved cost allocation study is provided in Table 1.

Table 1  
Distribution Design Day Demands  
2007 Board-Approved vs. 2013 Board-Approved Cost Allocation Study

Line No.	Rate Class	2007		2013		Variance	
		(10 <sup>3</sup> m <sup>3</sup> ) (a)	% (b)	(10 <sup>3</sup> m <sup>3</sup> ) (c)	% (d)	(10 <sup>3</sup> m <sup>3</sup> ) (e)=(c-a)	% (f)=(d-b)
1	Rate M1	26,952	51%	28,724	58%	1,772	7%
2	Rate M2	10,363	20%	9,650	20%	(713)	0%
3	Rate M4	3,068	6%	2,727	6%	(341)	0%
4	Rate M5 - F	203	0%	51	0%	(152)	0%
5	Rate M5 - I	2,607	5%	3,755	8%	1,148	3%
6	Rate M7 - F	1,566	3%	585	1%	(981)	(2%)
7	Rate M7 - I	160	0%	-	0%	(160)	0%
8	Rate T1/T2 - F	6,229	12%	2,883	6%	(3,346)	(6%)
9	Rate T1/T2 - I	1,586	3%	944	2%	(642)	(1%)
10	Total	52,734	100%	49,319	100%	(3,415)	0%

The increase in interruptible Rate M5 design day demands is a result of the increase in the interruptible Rate M5 forecast number of customers and delivery volumes, as shown in Table 2.

Table 2  
2013 Board-approved Number of Customers and Delivery Volumes

Line No.	Rate Class	2007 (a)	2013 (b)	Variance (c)=(b-a)
<u>Number of Customers</u>				
1	Rate M5 - F	50	31	(19)
2	Rate M5 - I	83	112	29
3	Total	133	143	10
<u>Delivery Volumes</u>				
4	Rate M5 - F	67,353	17,385	(49,968)
5	Rate M5 - I	337,281	516,392	179,111
6	Total	404,634	533,778	129,144

ii) DSM Program Costs (Sales and Promotion Operating Expenses)

The sales and promotion operating expenses shown at Attachment 3, line 16, include DSM Program costs. The total Rate M5 sales and promotion increase is \$2.915 million, of which \$2.683 million is DSM-related. The allocation of DSM Program costs to Rate M5 reflects the EB-2011-0327 Settlement Agreement filed on January 31, 2012.

iii) General Operating and Administrative Expenses

General operating and engineering costs and administrative and general (A&G) costs are allocated in proportion to other costs in the cost allocation study.

The distribution-related general operating and engineering costs are allocated to Rate M5 based on distribution plant. Since the total distribution plant allocation to Rate M5 increased (as described in part a), the allocation of these general operating and engineering costs also increased. The total general operating and engineering expenses allocated to Rate M5 increased by \$0.159 million (Attachment 3, line 17).

A&G costs are allocated in proportion to other O&M in the cost allocation study. The allocated Rate M5 total O&M has increased since 2007, primarily due to the inclusion of DSM costs in the 2013 Board-approved cost allocation study (as described in part b). The total Board-approved A&G costs have also increased from \$117 million to \$159 million since 2007, which increases the total costs allocated to all rate classes including Rate M5. As a result of these increases, the allocation of A&G costs to Rate M5 has increased by \$1.961 million in 2013 compared to the 2007 Board-approved cost allocation study (Attachment 3, line 18).

2013 Board-approved Rate M5 rates

Please see the table below for a summary of the changes in Rate M5 from the EB-2011-0210 Settlement Agreement to the EB-2011-0210 Decision and Rate Order.

Per the EB-2011-0210 Settlement Agreement filing, forecasted revenue was \$8.874 million (Line 1, column a) and the revenue requirement was \$16.280 million (Line 1, column b).

Union's rate proposals resulted in proposed revenue of \$12.149 million (Line 1, column d) or an approximate rate increase of 37% (Line 1, column g). Union's proposed revenue to cost ratio was 74.6% (Line 1, column h).

Per the Board's EB-2011-0210 Decision, forecasted revenue was \$8.916 million (Line 2, column a) and the revenue requirement was \$15.886 million (Line 2, column b).

Union's 2013 Board-approved rates resulted in revenue of \$13.096 million (Line 2, column d) or an approximate rate increase of 47% (Line 2, column g). The final Rate M5 revenue to cost ratio was 82.4% (Line 2, column h). The increase in the Rate M5 revenue to cost ratio resulted from the Board's Decision, in which the Board ordered Union to ensure 2013 revenue to cost ratios did not move further away from unity than the revenue to cost ratios approved in EB-2005-0520 (Union's 2007 rates).

If the revenue to cost ratio remained at Union's proposed level of 74.6%, the final Rate M5 rate increase would have been 33% as opposed to 47%.

Table 3  
2013 Rates - Rate M5 Continuity

Line No.	Particulars (\$000's)	Before Recovery			After Recovery				Revenue to Cost Ratio
		Current Approved Revenue	Revenue Requirement	Revenue (Deficiency)/ Sufficiency	Proposed Revenue	Revenue (Deficiency)/ Sufficiency	Revenue Increase	Revenue Change	
		(a)	(b)	(c)=(a-b)	(d)	(e)=(d-b)	(f)=(d-a)	(g)=(f/a)	(h)=(d/b)
1	Settlement Agreement	8,874	16,280	(7,406)	12,149	(4,131)	3,275	36.9%	74.6%
2	Decision Rate Order	8,916	15,886	(6,970)	13,096	(2,790)	4,180	46.9%	82.4%

UNION GAS LIMITED  
Rate M4 Revenue Requirement Comparison  
2013 vs. 2007 Board-Approved Cost Allocation Study

Line No.	Particulars (\$000's)	2007 (a)	2013 (b)	Difference (c) = (b - a)	% Change (d) = (c / a)
1	Rate of Return on Rate Base	7.93%	7.32%	(0.61%)	(8%)
2	Rate Base	53,190	54,282	1,093	2%
3	Return on Rate Base	4,220	3,973	(246)	(6%)
	<u>Operating Expenses</u>				
4	Total Cost of Gas	9,387	3,289	(6,098)	(65%)
5	Underground Storage	742	337	(405)	(55%)
6	Transmission	546	314	(231)	(42%)
7	Distribution (Southern Ontario)	597	616	19	3%
8	General Operating and Engineering	802	650	(151)	(19%)
9	Sales Promotion and Merchandise	2,677	2,495	(182)	(7%)
10	Distribution Customer Accounting	345	130	(215)	(62%)
11	Administrative and General	2,590	2,801	212	8%
12	Total Operating Expenses	17,686	10,633	(7,052)	(40%)
13	Depreciation Expense	2,708	2,669	(39)	(1%)
14	Accumulated Deferred Tax Drawdown	(299)	(268)	32	(11%)
	<u>Taxes</u>				
15	Capital Tax	136	0	(136)	(100%)
16	Property Tax	1,016	1,159	143	14%
17	Income Tax	591	461	(130)	(22%)
18	Total Taxes	1,743	1,620	(123)	(7%)
19	Total Rate M4 Revenue Requirement	26,057	18,628	(7,429)	(29%)

UNION GAS LIMITED  
Rate M5 Rate Base Allocation  
2007 vs. 2013 Board-Approved Cost Allocation Study

Line No.	Particulars (\$000's)	2007			2013			Variance (2013 less 2007)			
		M5 - F	M5 - I	Total	M5 - F	M5 - I	Total	M5 - F	M5 - I	Total	%
		(a)	(b)	(c)=(a+b)	(d)	(e)	(f)=(d+e)	(g)=(d-a)	(h)=(e-b)	(i)=(f-c)	(j)=(i/c)
1	Union South Distribution Net Plant	1,910	21,047	22,957	473	35,880	36,353	(1,437)	14,833	13,396	58%
	<u>Other Rate Base</u>										
	Net Plant Excluding Distribution										
2	Underground Storage Net Plant	199	1,209	1,408	33	1,658	1,691	(166)	448	283	20%
3	Transmission Net Plant	869	0	869	232	0	232	(637)	0	(637)	(73%)
4	Intangible Net Plant	3	37	40	0	31	31	(3)	(6)	(9)	(22%)
5	General Plant	462	1,757	2,219	124	1,862	1,986	(338)	104	(233)	(11%)
6	Total Net Plant Excluding Distribution	1,533	3,003	4,537	390	3,550	3,940	(1,144)	547	(597)	(13%)
7	Working Capital										
8	O&M Working Capital	39	235	274	42	407	449	3	172	175	64%
9	Gas in Storage	264	3,133	3,396	7	4,071	4,078	(257)	938	682	20%
10	Balancing Gas	236	3,117	3,354	1	2,623	2,624	(235)	(494)	(730)	(22%)
11	Inventory of Stores and Spare Equipment	39	353	392	9	526	535	(30)	173	143	36%
12	Customer Deposits	(73)	(855)	(928)	(18)	(1,388)	(1,406)	54	(533)	(479)	52%
13	Other Working Capital	13	41	54	4	152	156	(9)	111	102	191%
14	Total Working Capital	518	6,023	6,542	45	6,390	6,435	(474)	367	(107)	(2%)
15	Accumulated Deferred Taxes	(208)	(1,213)	(1,421)	(18)	(676)	(694)	190	536	727	(51%)
16	Other Rate Base Excluding Union South Distribution Plant (line 6 + line 14 + line 15)	1,844	7,814	9,658	416	9,264	9,681	(1,428)	1,451	23	0%
17	Total Rate Base (line 1 + line 16)	3,754	28,861	32,615	890	45,144	46,034	(2,864)	16,283	13,419	41%

UNION GAS LIMITED  
Rate M5 Revenue Requirement Comparison  
2013 vs. 2007 Board-Approved Cost Allocation Study

Line No.	Particulars (\$000's)	2007			2013			Variance (2013 less 2007)			
		M5 - F	M5 - I	Total	M5 - F	M5 - I	Total	M5 - F	M5 - I	Total	%
		(a)	(b)	(c)=(a+b)	(d)	(e)	(f)=(d+e)	(g)=(d-a)	(h)=(e-b)	(i)=(f-c)	(j)=(i/c)
<u>Union South Distribution Net Plant</u>											
1	Demand-Related	1,352	17,362	18,714	421	31,170	31,590	(931)	13,807	12,876	69%
2	Customer-Related	558	3,684	4,243	53	4,710	4,763	(505)	1,025	520	12%
3	Total Union South Distribution Net Plant	1,910	21,047	22,957	473	35,880	36,353	(1,437)	14,833	13,396	58%
4	Other Rate Base <sup>(1)</sup>	1,844	7,814	9,658	416	9,264	9,681	(1,428)	1,451	23	0%
5	Total Rate Base	3,754	28,861	32,615	890	45,144	46,034	(2,864)	16,283	13,419	41%
6	Total Return and Taxes	399	3,100	3,500	89	4,514	4,603	(311)	1,414	1,104	32%
<u>Union South Distribution Depreciation Expense</u>											
7	Demand-Related	59	756	815	20	1,497	1,517	(39)	740	702	86%
8	Customer-Related	31	202	233	3	255	258	(28)	53	26	11%
9	Total Union South Distribution Depreciation Expense	90	958	1,048	23	1,752	1,775	(67)	794	727	69%
10	Other Depreciation Expense	153	401	554	41	518	559	(111)	117	5	1%
11	Total Depreciation Expense	242	1,360	1,602	64	2,270	2,335	(178)	911	733	46%
12	Cost of Gas	148	704	852	50	2,777	2,827	(98)	2,073	1,975	232%
<u>Union South Distribution O&amp;M</u>											
13	Demand-Related	38	487	525	10	750	760	(28)	263	235	45%
14	Customer-Related	3	26	29	1	78	79	(2)	52	50	174%
15	Total Union South Distribution O&M	41	513	554	11	828	839	(30)	315	285	51%
<u>Other O&amp;M</u>											
16	Sales and Promotion	80	744	824	316	3,424	3,739	235	2,679	2,915	354%
17	General Operating & Engineering	74	346	420	45	533	578	(29)	188	159	38%
18	Administrative and General	167	1,003	1,170	341	2,790	3,131	174	1,787	1,961	168%
19	Other O&M	170	661	831	31	404	435	(138)	(257)	(396)	(48%)
20	Total O&M	532	3,267	3,799	744	7,979	8,723	212	4,712	4,924	130%
21	Total Revenue Requirement	1,322	8,431	9,752	947	17,540	18,487	(374)	9,109	8,735	90%

Notes:

(1) Other rate base includes net plant excluding Union South distribution plant (line 1), working capital, and accumulated deferred taxes.



UNION GAS LIMITED

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

Reference: SCHEDULE 2 TO THESE INTERROGATORIES

Please provide Union's policy for establishing financial security for contract customers.

- a) Please confirm this policy is not approved by the Board.
  - b) Please describe how an existing or potential customer may access this policy.
- 

**Response:**

This interrogatory response, and the responses that follow regarding the Leamington Expansion Project, are not relevant to the issues raised in Union's 2014 rates proceeding. The Leamington Expansion Project was approved by the Board in EB-2012-0431.

a) –b ) Confirmed. Union's financial security policy is not approved by the Board. Union's policy is that all transactions involving extension of credit must be with counterparties approved by authorized Credit employees.

The process surrounding financial security (assurances) is outlined in section 5.04 of the General Terms and Conditions of the contracts. The General Terms and Conditions are posted on Union's website and available to customers. Customers are also directed to contact their Account Manager if they have questions.

Union's General Terms and Conditions are not approved by the Board and are subject to change from time to time.

UNION GAS LIMITED

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

Reference: SCHEDULE 2 TO THESE INTERROGATORIES

Please provide all internal Union correspondence to the management and agents responsible for contract negotiation that address the contracting practice including but not limited to:

- a) need for aid-to-construction
  - b) establishing minimum annual volume
  - c) need to secure firm contracting
  - d) availability of additional capacity from the line in the next five years
- 

**Response:**

Union has no internal correspondence that addresses the contracting practice for items listed above.

UNION GAS LIMITED

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

Reference: SCHEDULE 2 - UNION LETTER OF AUGUST 8, 2013

Preamble: Union's letter states on page 2: "The capital cost of the new line has been unitized in a manner that will enable a proportionate share of the cost to be attributed to growers based on the capacity for the number of acres the customer is requesting. For ease of communications, we equated the volume capacity to an equivalent usage per acre because acres are a common point of reference from the perspective of the growers. The unitized cost is \$9000 / \$ 18000 per acre for interruptible or firm service respectively, and is applied to all growers... In March Union updated the forecasted attachments and the forecasted distribution costs. The net result was a forecasted PI of 1.18.

Please file the complete economics package that provides the forecasted attachments broken down by residential, commercial and industrial classes by year of attachment or contract upgrade and the costs associated with the project.

- a) Hypothetically, if all the forecasted attachments and upgrades paid the upfront per acre unitized cost prior to obtaining service during the forecast period, please provide the sum of money that would be collected by forecast year?
- b) In this same hypothetical example, if the payments were made and the volumes forecasted were consumed, please provide the resulting profitability index of the project.
- c) Beyond the forecasted attachments and upgrades in the economics, please provide Union's forecast by year for the rest of the market served by this pipeline.
- d) Please provide the profitability index for this pipeline if these additional loads were added to the approved economic analysis (i.e., without the hypothetical upfront payments described in a)).

---

**Response:**

Please see Attachment 1. This information was filed in Union's reply argument in EB-2012-0431. All economics are for contract commercial customers.

- a) Hypothetically, based on Attachment 1, p. 1, the amount Union would have collected would be \$7.1 million in 2013, \$0.5 million in 2014, and \$0.7 million in 2015.

- b) The hypothetical scenario assumes all customers would have paid a charge per acre in advance and chosen a revenue term of zero. This did not occur.

However, the PI for the requested scenario would be 6.5. This is based on the original assumption of a revenue term of 10 years, and the collection of the charge in advance.

If customers made such payments, the PI of 1.0 would be achieved with a term of approximately 3 years.

- c) The Leamington pipeline is fully subscribed; there is no excess capacity to serve additional markets.
- d) Please see the response to part c).

## ATTACHMENT # 1

## CONTRACTED AND FORECASTED CUSTOMER GROWTH

			Interruptible Distribution Service (# of acres)	Firm Distribution Service (# of acres)	Conversion from Interruptible to Firm (# of acres)	Start Date Requested
	<b>Contract</b>	1			7	November 2013
		2			10	November 2013
		3			4	November 2013
		4	12			December 2013
		5	20	20	25	November 2013
		6		4		November 2013
		7		1.5		November 2013
		8	30			November 2013
		9		10		November 2013
		10			6	November 2013
		11			10	November 2013
		12			7	November 2013
		13			2.5	November 2013
		14		5.2	8.2	November 2013
		15			3	November 2013
		16			8	November 2013
		17			14	November 2013
		18			8	November 2013
		19			23	November 2013
		20			6.7	November 2013
		21			5	November 2013
		22			7	November 2013
		23			10	November 2013
		24			6	November 2013
		25			15	November 2013
		26			6.5	November 2013
		27			12	November 2013
		28			4	November 2013
		29			26	November 2013
		30			16	November 2013
		31			3.4	November 2013
		32			30	November 2013
		33			14	November 2013
		34			24	November 2013
		35		4		November 2014
		36	20			November 2014
		37	9	8		December 2014
		38		32		November 2015
		39	12			December 2015
	<b>TOTAL</b>		103	84.7	321.3	

Filed: 2014-01-30

EB-2013-0365

Exhibit B12.5

Attachment 1

Page 1 of 2

**ATTACHMENT # 2****Project Information Summary  
Overall Leamington Project.**

**Rate Area:** UnionSouth  
**Description:** 509 Firm acres attachment.  
**Division:** Windsor  
**Project Number:** No project number supplied  
**Comments:** 509 firm acres available.

**DCF Economic Results  
Base Case**

<b>Profitability Index</b>	<b>1.18</b>
<b>Net Present Value</b>	<b>1,771,530</b>
<b>Total Project ROE</b>	<b>19.79%</b>
<b>5 yr PBR Cash Flow ROE *</b>	<b>19.79%</b>
<b>First yr. of Corp. Revenue Sufficiency</b>	<b>1</b>

**Sensitivities on DCF Base Case**

Capital		Volume	
Less 5 %	Add 5 %	Less 5 %	Add 5 %
1.24	1.13	1.18	1.18
2,215,535	1,327,524	1,771,530	1,771,530
23.09%	16.75%	19.79%	19.79%
23.09%	16.75%	19.79%	19.79%
-	-	-	-

**Cumulative Discounted Cash Flows:**

Inflows	\$	11,610,173
Outflows	\$	9,838,644

**Revenue (Deficiencies)/Sufficiencies:**

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Final Year</b>
Company Total	\$ 280,862	\$ 755,404	\$ 937,871	\$ 1,027,200	\$ 1,029,078	\$ (688,249)
Residential Class	n/a	n/a	n/a	n/a	n/a	n/a
Per Residential Customer	n/a	n/a	n/a	n/a	n/a	n/a
Earnings Before Interest and Taxes *	\$ 273,897	\$ 1,260,832	\$ 1,446,512	\$ 1,535,262	\$ 1,535,102	
Financial Statement Earnings *	\$ 256,744	\$ 858,587	\$ 990,359	\$ 1,047,708	\$ 1,040,149	
Financial Statement ROE *	45.57%	25.27%	29.38%	31.96%	32.73%	

**Aid Information**

Total amount of contribution required for desired PI of --> **0.80** \$ -  
 Remaining amount of contribution after lump sum for desired PI \$ -

**Input Summary**

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>Total Project</b>
Number of Attachments	1	1	1	-	-	3
Gross Capital Expenditures	\$ 9,434,319	\$ 370,029	\$ 39,284	\$ -	\$ -	\$ 9,843,632
Contribution In Aid of Construction	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Capital	\$ 9,434,319	\$ 370,029	\$ 39,284	\$ -	\$ -	\$ 9,843,632

Project Life 13  
 Discount Rate 5.10%  
 In Service Month: Nov  
 Rate Inflator 0.00%  
 Inflation Factor 0.00%

Prepared by: mrountre

Approved by:

Reviewed by:

DREAM Version: 2013 DREAM--v01

UNION GAS LIMITED

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

Reference: SCHEDULE 2 - UNION LETTER OF AUGUST 8, 2013

Please provide Union's policy for establishing minimum annual volumes for contract customers prior to 2013.

- a) For contracts signed in conjunction with the Leamington Line project in 2013, please provide any analysis Union undertook to ensure that the minimum annual volumes contracted for were below a forecasted annual consumption for reasonably warm winter for the customer. Please describe how recent improvements in energy efficiency for new or expanded facilities were incorporated into the analysis.
- b) If that analysis was not undertaken, would it be Union's position that the customer is responsible to consume the minimum annual volume or compensate Union for the under-consumption? If so, how is the amount of compensation calculated?
- c) If the answer to b) is yes, would Union return additional margins generated from that same customer if the next year was considerably colder than normal resulting in actual consumption above forecast?

---

**Response:**

Union does not have a minimum annual volume policy. Union relies on the EBO-188 Decision as it relates to capital projects.

- a) Union did not complete any analysis to ensure that the contracted minimum annual volumes were below a forecasted annual consumption for a warmer than normal winter for the customer.
- b) Yes, the customer is responsible to consume the minimum annual volume or compensate Union for their under-consumption. As Union indicated in its letter dated July 18, 2013:

*The MAV is the minimum amount of volume that must be consumed during the term of the contract. Should the contracted minimum annual volume requirement not be met, the applicable charges would be applied, as outlined in the signed gas distribution contract. The charge will be the quantity of the MAV shortfall multiplied by the applicable charge as specified in the rate schedule. The charge would be billed in the*

*first month following the end of the contract year (Section 5 of the Gas Distribution Contract).*

- c) No. The MAV is the minimum amount of volume that must be consumed during the term of the contract. The additional margins that may be generated from the customer in the next year due to colder than normal weather, contributes to the recovery of Union's costs in that year.



UNION GAS LIMITED

Answer to Interrogatory from  
Ontario Greenhouse Vegetable Growers (“OGVG”)

Reference: SCHEDULE 2 - UNION LETTER OF DECEMBER 5, 2013

Please confirm that, for projects that have a PI greater than 1, EBO 188 does not prescribe the practice of upfront capital contributions or minimum annual volumes as a condition of access to the additional capacity.

---

**Response:**

EBO 188 does not prescribe minimum annual volumes nor the requirement to collect an upfront capital contribution. Union’s practices for determining economic feasibility, and conditions under which a capital contribution is required, are defined in Union’s Distribution New Business Guidelines, which are filed in each rate case. Union most recently filed these guidelines in EB-2011-0210.

UNION GAS LIMITED

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

Reference: SCHEDULE 2 - UNION LETTER OF DECEMBER 5, 2013

Please provide the incremental total hourly demand, for each firm and interruptible increases, for each year of the first five years of the project.

- a) How were those hourly demands generated (i.e., by historical hourly demand by acre, historical annual demand by acre converted to hourly).
- b) Please confirm or correct the following statements that:
  - i) that the pipeline would be designed to meet the firm load on a 44 Degree Day
  - ii) that the pipeline would be designed to meet the firm and interruptible load on a 35 Degree Day

---

**Response:**

- a) As indicated in Union's letter dated December 2, 2013, the Leamington Expansion Pipeline project has firm capacity to provide 48,633 m<sup>3</sup>/hour and an additional 10,300 m<sup>3</sup>/hr of interruptible capacity. The forecast for the Leamington Expansion project is not based on hourly demands by rate class. The economics for the project are derived from the revenue for each of the three types of acres being served by the project (e.g. new firm, new interruptible and conversion from interruptible to firm) and the applicable rate class identified for each type. Based on the applicable rate class for each type, a forecast of revenues for the project was developed. Accordingly, the total hourly demand for each year has no impact on the project economics and has not been provided.
- b)
  - i) Not Confirmed. The Union South design day degree day is 43.1 DD.
  - ii) Not Confirmed. The current Panhandle system is designed to meet the firm and interruptible load on a 29 DD. This number can vary from year to year based on changes in supply and demand.

UNION GAS LIMITED

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

Reference: SCHEDULE 2 - UNION LETTER OF DECEMBER 5, 2013

Please provide specifics on the pipeline:

- a) Length and diameter of pipeline
- b) Minimum inlet and maximum outlet pressure of the pipeline
- c) Please clarify the statement "the pipeline project has the firm capacity to provide 48,633m<sup>3</sup>/hr and an additional 10,300 m<sup>3</sup>/hr of interruptible capacity.
- d) Please provide the annual hourly load growth forecasted by year for the next five years for the Leamington system served by this pipeline.
- e) Based upon the hourly loads for the forecasted attachments and additional hourly loads identified in d), please specify the remaining capacity available for additional potential customers in year 6 and beyond.
- f) If that answer is zero, what is Union's intended reinforcement plan at that juncture?

---

**Response:**

- a) The pipeline is 8.5 kilometers of NPS 12 natural gas pipeline.
- b) The Leamington Expansion pipeline is an integral part of the Panhandle transmission system and is not designed with specific minimum inlet and maximum outlet pressures. The Panhandle system is designed to meet all customers' and downstream distribution system demands and minimum inlet pressure requirements with a maximum operating pressure of 6040 kPag provided at Dawn.
- c) The total capacity of the Leamington Expansion Pipeline Project is able to provide on an hourly basis 48,633 m<sup>3</sup> of firm natural service and an additional 10,300 m<sup>3</sup> of interruptible natural gas service.
- d) Please see the response at Exhibit B12.8.
- e) Please see the response at Exhibit B12.8.

- f) Union forecasts reinforcement requirements using a three year forward looking forecast. The currently planned facilities are sufficient to meet the three year forecast. Union will identify any additional reinforcement on an annual basis as growth is forecast. Additional reinforcement will be constructed on the basis of need and economic justification.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 1, page 9 and Working Papers Schedule 10  
Rate Impact of Parkway West Completion (per EB-2013-0074)

Please provide the forecasted rate impact in 2015 and 2016 using the Board-approved methodology for cost allocation.

---

**Response:**

Please see Attachment 1. This schedule was previously filed in EB-2012-0433 as Schedule 12-6.

UNION GAS LIMITED  
Parkway West Project Revenue Requirement by Rate Class

Line No.	Particulars (\$000's)	2014 (a)	Variance (b) = (c - a)	2015 (c)	Variance (d) = (e - c)	2016 (e)	Variance (f) = (g - e)	2017 (g)	Variance (h) = (i - g)	2018 (i)
1	Rate M1	(482)	(1,105)	(1,587)	(141)	(1,728)	341	(1,386)	290	(1,097)
2	Rate M2	(57)	(34)	(91)	126	36	49	85	41	125
3	Rate M4	(13)	(5)	(18)	35	17	12	29	10	39
4	Rate M5	(17)	(54)	(70)	(24)	(94)	11	(83)	10	(73)
5	Rate M7	(4)	6	2	21	23	4	27	3	30
6	Rate M9	(0)	6	6	9	15	1	15	0	16
7	Rate M10	(0)	0	0	0	0	0	0	0	0
8	Rate T1	(9)	(17)	(27)	9	(18)	8	(10)	7	(3)
9	Rate T2	(32)	(13)	(45)	106	61	33	95	27	122
10	Rate T3	(1)	44	43	64	107	4	111	3	114
11	Subtotal - Union South	<u>(614)</u>	<u>(1,172)</u>	<u>(1,786)</u>	<u>205</u>	<u>(1,581)</u>	<u>463</u>	<u>(1,118)</u>	<u>390</u>	<u>(728)</u>
12	Excess Utility Space	(9)	(21)	(30)	(8)	(38)	5	(33)	5	(28)
13	Rate C1	(0)	(12)	(13)	(9)	(22)	1	(20)	1	(20)
14	Rate M12	643	8,308	8,950	9,706	18,657	37	18,694	(26)	18,668
15	Rate M13	(0)	(0)	(1)	0	(1)	0	(0)	0	(0)
16	Rate M16	0	(1)	(1)	(0)	(1)	0	(1)	0	(1)
17	Subtotal - Ex-franchise	<u>633</u>	<u>8,273</u>	<u>8,906</u>	<u>9,689</u>	<u>18,595</u>	<u>44</u>	<u>18,639</u>	<u>(20)</u>	<u>18,619</u>
18	Rate 01	(219)	(333)	(552)	131	(421)	158	(263)	134	(129)
19	Rate 10	(28)	5	(24)	83	59	24	83	20	103
20	Rate 20	(22)	(45)	(68)	5	(63)	18	(45)	15	(30)
21	Rate 100	(19)	(56)	(75)	(20)	(95)	14	(81)	12	(69)
22	Rate 25	(7)	(22)	(29)	(9)	(38)	5	(33)	4	(28)
23	Subtotal - Union North	<u>(295)</u>	<u>(452)</u>	<u>(747)</u>	<u>189</u>	<u>(557)</u>	<u>218</u>	<u>(339)</u>	<u>185</u>	<u>(154)</u>
24	In-franchise	(909)	(1,624)	(2,533)	395	(2,138)	682	(1,457)	575	(882)
25	Ex-franchise	633	8,273	8,906	9,689	18,595	44	18,639	(20)	18,619
26	Total	<u><u>(276)</u></u>	<u><u>6,649</u></u>	<u><u>6,373</u></u>	<u><u>10,084</u></u>	<u><u>16,457</u></u>	<u><u>726</u></u>	<u><u>17,182</u></u>	<u><u>555</u></u>	<u><u>17,737</u></u>

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 1, page 9 and Working Papers Schedule 10  
Rate Impact of Parkway West Completion (per EB-2013-0074)

Please provide the forecasted rate impact in 2015 and 2016 using the Board-approved methodology but allocating 100% of the Parkway West costs to ex-franchise services.

---

**Response:**

The Board-approved methodology would not allocate 100% of the Parkway West Project costs to ex-franchise services.

If Union were to allocate 100% of the Parkway West costs to ex-franchise services, the costs allocated to the M12 rate class would increase from \$9.0 million to \$10.7 million in 2015 and from \$18.7 million to \$22.3 million in 2016.

Please see Attachment 1 for a comparison of the cost allocation methodologies described in the responses to Exhibit B13.1 and Exhibit B13.2.

UNION GAS LIMITED  
Parkway West Project Allocating all Costs to M12  
Revenue Requirement by Rate Class

Line No.	Particulars (\$000's)	EB-2012-0433 2015 Parkway West Project (1)	2015 Parkway West Project Costs Allocated 100% to Rate M12 (2)	Difference (c) = (b - a)	EB-2012-0433 2016 Parkway West Project (1)	2016 Parkway West Project Costs Allocated 100% to Rate M12 (2)	Difference (f) = (e - d)
		(a)	(b)	(c) = (b - a)	(d)	(e)	(f) = (e - d)
1	Rate M1	(1,587)	(2,208)	(621)	(1,728)	(3,016)	(1,289)
2	Rate M2	(91)	(299)	(209)	36	(397)	(433)
3	Rate M4	(18)	(78)	(61)	17	(109)	(126)
4	Rate M5	(70)	(71)	(1)	(94)	(95)	(1)
5	Rate M7	2	(26)	(28)	23	(35)	(58)
6	Rate M9	6	(4)	(10)	15	(6)	(21)
7	Rate M10	0	(0)	(0)	0	(0)	(1)
8	Rate T1	(27)	(57)	(30)	(18)	(80)	(62)
9	Rate T2	(45)	(239)	(194)	61	(342)	(403)
10	Rate T3	43	(27)	(70)	107	(39)	(146)
11	Subtotal - Union South	<u>(1,786)</u>	<u>(3,010)</u>	<u>(1,224)</u>	<u>(1,581)</u>	<u>(4,121)</u>	<u>(2,540)</u>
12	Excess Utility Space	(30)	(30)	0	(38)	(38)	0
13	Rate C1	(13)	(13)	0	(22)	(22)	0
14	Rate M12	8,950	10,718	1,767	18,657	22,324	3,667
15	Rate M13	(1)	(1)	0	(1)	(1)	0
16	Rate M16	(1)	(1)	0	(1)	(1)	0
17	Subtotal - Ex-franchise	<u>8,906</u>	<u>10,673</u>	<u>1,767</u>	<u>18,595</u>	<u>22,262</u>	<u>3,667</u>
18	Rate 01	(552)	(958)	(406)	(421)	(1,264)	(843)
19	Rate 10	(24)	(130)	(106)	59	(162)	(221)
20	Rate 20	(68)	(96)	(28)	(63)	(122)	(59)
21	Rate 100	(75)	(77)	(2)	(95)	(99)	(4)
22	Rate 25	(29)	(29)	0	(38)	(38)	0
23	Subtotal - Union North	<u>(747)</u>	<u>(1,290)</u>	<u>(543)</u>	<u>(557)</u>	<u>(1,685)</u>	<u>(1,127)</u>
24	In-franchise	(2,533)	(4,300)	(1,767)	(2,138)	(5,805)	(3,667)
25	Ex-franchise	8,906	10,673	1,767	18,595	22,262	3,667
26	Total	<u>6,373</u>	<u>6,373</u>	<u>0</u>	<u>16,457</u>	<u>16,457</u>	<u>0</u>

Note:

(1) As per EB-2012-0433, Schedule 12-6.

(2) Union direct assigned 100% of the Parkway West Project costs to Rate M12, including the indirect costs associated with the project that were allocated to the Dawn-Parkway transmission functional classification.



UNION GAS LIMITED

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

Reference: Exhibit A, Tab 2, page 15

Please confirm that UFG:

- a) for storage is allocated based upon storage space
- b) for transmission is allocated by throughput
- c) If that is not correct, please correct specifically.

---

**Response:**

Storage space is not a parameter used in the allocation of UFG to Union's unregulated operations.

UFG is incurred on total system volumes (activity) which includes both storage (unregulated and regulated) and transmission related activities. Activity related to the unregulated portion of storage operations, as a percentage of total system volumes, is used to allocate UFG to unregulated storage operations. All other UFG (transmission and regulated storage) is considered to be regulated.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 2, Appendix A

Please identify any changes in non-utility plant continuity schedules filed with this application and those filed in EB-2011-0210.

- a) For each change, please provide the rationale for the change and the resulting financial impact on allocations at year-end 2012.
  - b) Please provide any changes in general overheads allocation between EB-2011-0210 and this application.
- 

**Response:**

- a) Union did not file non-utility plant continuity schedules in EB-2011-0210.
- b) There are no changes to Union's general overhead allocation methodology between EB-2011-0210 and EB-2013-0365.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 1

Please confirm that it is Union's understanding that the request of customers to move their Parkway obligation back to Dawn is to reduce the landed cost of gas into Union's franchise.

---

**Response:**

Confirmed. It is Union's understanding that customers want to move their Parkway obligation to Dawn to reduce their landed cost of gas into Union's franchise. Please refer to the response at Exhibit B1.8.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 1

Please provide the total amount of capacity bid in the January open season broken down by initial contract year and paths (please note that if these figures are not compiled by the time of IR response, please provide the figures at the earliest time they are available):

- a) Dawn-Kirkwall
- b) Dawn-Parkway
- c) Kirkwall-Parkway

---

**Response:**

- a) – c) Please see the response at Exhibit B11.2.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 1

With the existing facilities and the Brantford-Kirkwall segment (EB-2013-0074) installed, please provide the amount of surplus/deficiency in capacity for each of the above paths in question 6.

---

**Response:**

Union is unable to provide this information. Please see the response at Exhibit B11.2.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 2

What percentage of system sales annual deliveries were made at Parkway:

- a) Just before direct purchase started (circa 1985)
- b) Just before the advent of vertical slice (circa 2000)
- c) 2013
- d) For each of the respective years, what percentage of the system sales Parkway deliveries was obligated?

---

**Response:**

a)-d) All deliveries planned for the sales service customers that are delivered at Parkway/Union CDA are considered obligated.

In 1985, prior to direct purchase, all of Union's supplies were for sales service customers requirements. TCPL deliveries made up the greatest percentage of total supplies. It is not clear from the information available, what portion of TCPL deliveries were at Dawn vs Parkway. Union has provided below, information that was taken from Board filed material in 1985 and 1999. That information identifies TCPL and Other Supplies, but does not differentiate the delivery point between Dawn and Parkway. As noted below, certain TCPL contracts during the period 1985 to 1999 had Parkway/Union CDA delivery points (CD/FT), and certain TCPL contracts had Dawn as a delivery point (ACQ/FST). Other Supplies would have been Local production and US supplies which would be considered as a Dawn delivery.

Union's gas supply portfolio for sales service customers in 1985, 2000, and 2013 is provided below.

	<b><u>1985</u></b>	<b><u>1999</u></b>	<b><u>2013</u></b>
	(1)(3)	(2) (3)	(4)
TCPL Supplies	97%	55%	31%
Other Supplies	3%	45%	69%

Notes:

- (1) Per EBRO 405-2, Exh J2, Tab 2, Sch 2, p. 1 of 1 revised.
- (2) Per EBRO 499 Exh D3, Tab 2, Sch 1, p. 1 of 4 (updated) column a (excluding buy/sell).
- (3) TCPL ACQ and FST contracts also had Dawn as a delivery point in addition to the Parkway/Union CDA delivery point of the CD/FT contracts. The actual split between Dawn and Parkway/Union CDA deliveries is unavailable.
- (4) Percentage of Parkway vs Dawn Deliveries - Parkway Obligations Working Group Presentation (October 10, 2012) p. 22 , line 12

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 3, lines 2-4

How does Union operationalize this obligation? For example, if Union wants to move the scheduled system gas deliveries upstream to meet demands or use the capacity for optimization, is there any procedural authorization process?

---

**Response:**

Union has long haul capacity from Empress to the Union CDA that has historically been used to meet demands associated with cold weather in upstream delivery areas (MDA, NDA, WDA, NCDA), and this contract has also been optimized on non-peak days when temporary surplus capacity is available.

As per Union's gas supply plan, the Empress to Union CDA transportation contract is diverted upstream to meet gas supply requirements during cold weather as an economical way of meeting cold weather conditions in the North while still providing supply to Union South on the remaining days. When this contract is used to meet cold weather conditions in Union North, on the same day, the gas supply plan requires Union North customers would move an equivalent quantity of gas from Dawn to Parkway using M12 capacity that is set aside for this purpose. This ensures that there is no change to the deliveries at Parkway. No authorization is required for this process since it is included in the gas supply plan.

On the days that Union delivers the Empress to Union CDA transportation to an upstream location for optimization purposes, Union also transports gas from Dawn to Parkway. The same M12 capacity that is used during cold weather conditions is excess capacity during this scenario and is used to meet the Parkway delivery obligation for system customers.



UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 6

Please confirm that Union's standard notice for Dawn-Parkway renewal is 2 yrs.

- a) How does Union know with certainty that these turnbacks will be available?
  - b) If not 100% certain, what is the implication to Union's proposal if only half of the forecasted amount is turned back?
- 

**Response:**

Confirmed.

- a) Union does not have certainty that the turnback will occur as forecasted. Please see the response at Exhibit B4.10.
- b) Please see the response at Exhibit B6.2.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 10, lines 2-6

What was Union's policy to determine if the customer was required to deliver at Dawn or Parkway?

---

**Response:**

The split between Dawn and Parkway is a function of which allocated/assigned upstream transportation contracts were turned back by the customer and where that contract delivered gas on to the Union system. For example, an allocation of TCPL FT capacity delivered gas to Union's system at Parkway and an allocation of Alliance/Vector capacity delivered gas to Union's system at Dawn.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 20

Please provide Union's reasons for treating having a criterion that treats all direct purchase customers equally but not equally with system gas customers?

---

**Response:**

Please see the responses at Exhibit B1.8, Exhibit B8.3 and Exhibit B1.9.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 21, lines 10-12

Please confirm that if Union obligated the same percentage of deliveries to Parkway as direct purchase customers, the distribution rate impact to all customers would be mitigated.

- a) For each year of Union's proposal, please increase system supply obligations to the same percentage of deliveries as direct purchase customers and calculate the resulting cost allocations and rate impacts found in Section 8.0.

---

**Response:**

- a) Please see the response at Exhibit B2.12 parts c) and e).

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 22, lines 14-16

Please provide a summary of how Union will accomplish this during the transition period including the resulting cost consequences to customers and impacts to system supply delivery obligations.

---

**Response:**

Please see the response at Exhibit B7.5.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 23

From the coordination efforts that the utilities have been undertaking with TCPL, please provide the capacity available at Kirkwall from Niagara (i.e., what capacity did Union Gas design its receipt capability for)?

---

**Response:**

Union's Kirkwall Custody Transfer station was originally designed to deliver up to approximately 1.6 PJ to TCPL. The modifications made to the station in 2012 allow full bi-directional measurement capability. Overall import capability on Union's system at Kirkwall is contingent on the contracted flow path (Kirkwall to Dawn or Kirkwall to Parkway) and other design day delivery requirements to all of Union's markets along and from the Dawn-Parkway system, and is based on the physical capabilities of the transmission system. Union does not know the capacity available from Niagara on TCPL's system. However, TCPL filed their plans for Niagara as to create import metering of approximately 439 TJ/d as part of their 2012 Mainline Expansion Project.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 4, page 25

Please provide the results of the reverse open season held in conjunction with the Dawn-Parkway open season (as with the earlier request, at the earliest available time).

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**Response:**

Please see the response at Exhibit B11.2.

UNION GAS LIMITED

Answer to Interrogatory from  
Industrial Gas Users Association ("IGUA")

Reference: Exhibit A, Tab 4, page 3, lines 1-2

The evidence explains that Union relies on obligated deliveries at Parkway from direct purchase customers and sales service customers in the design of the Dawn-Parkway transmission system.

- a) Please provide a map of Union's Dawn-Parkway system with each of the laterals off of that system indicated, and with the Union-South and Union-North service areas indicated.
- b) Please explain, with specific reference to the map provided in response to part a. if possible, how the delivery of gas at Parkway supports the physical operation of: i) Union's gas distribution system for Union South customers; ii) Union's gas distribution system for Union North customers; and iii) Union's gas transportation system.
- c) Please populate the following table for each of the 5 years ending in 2013:

<i>Year</i>	<i>Gas Delivered at Parkway (Gj) (a)</i>	<i>Gas Leaving Union's System at Parkway (Gj) (b)</i>	<i>b as a percentage of a</i>
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**Response:**

- a) Please see Attachment 1 "Union Gas System" and Attachment 2 "Dawn – Parkway System Schematic".
- b)
  - i) Please see Attachment 3 "Winter Design Day 2013/2014 Dawn– Parkway system (South In-Franchise Demand)". The obligated delivery gas arriving at Parkway reduces the volume of gas transported from Dawn on the Dawn to Parkway system for Union South in-franchise customers. The obligated deliveries at Parkway reduce the facilities required for Union South in-franchise customers.
  - ii) Please see Attachment 4 "Winter Design Day 2013/2014 Dawn –Parkway system (North Demand)". There is no obligated delivery of gas at Parkway for Union North customers. A portion of the winter design day requirements for the North customers is transported from Dawn to Parkway (TCPL) on the Dawn to Parkway system for re-delivery to Union North customers.

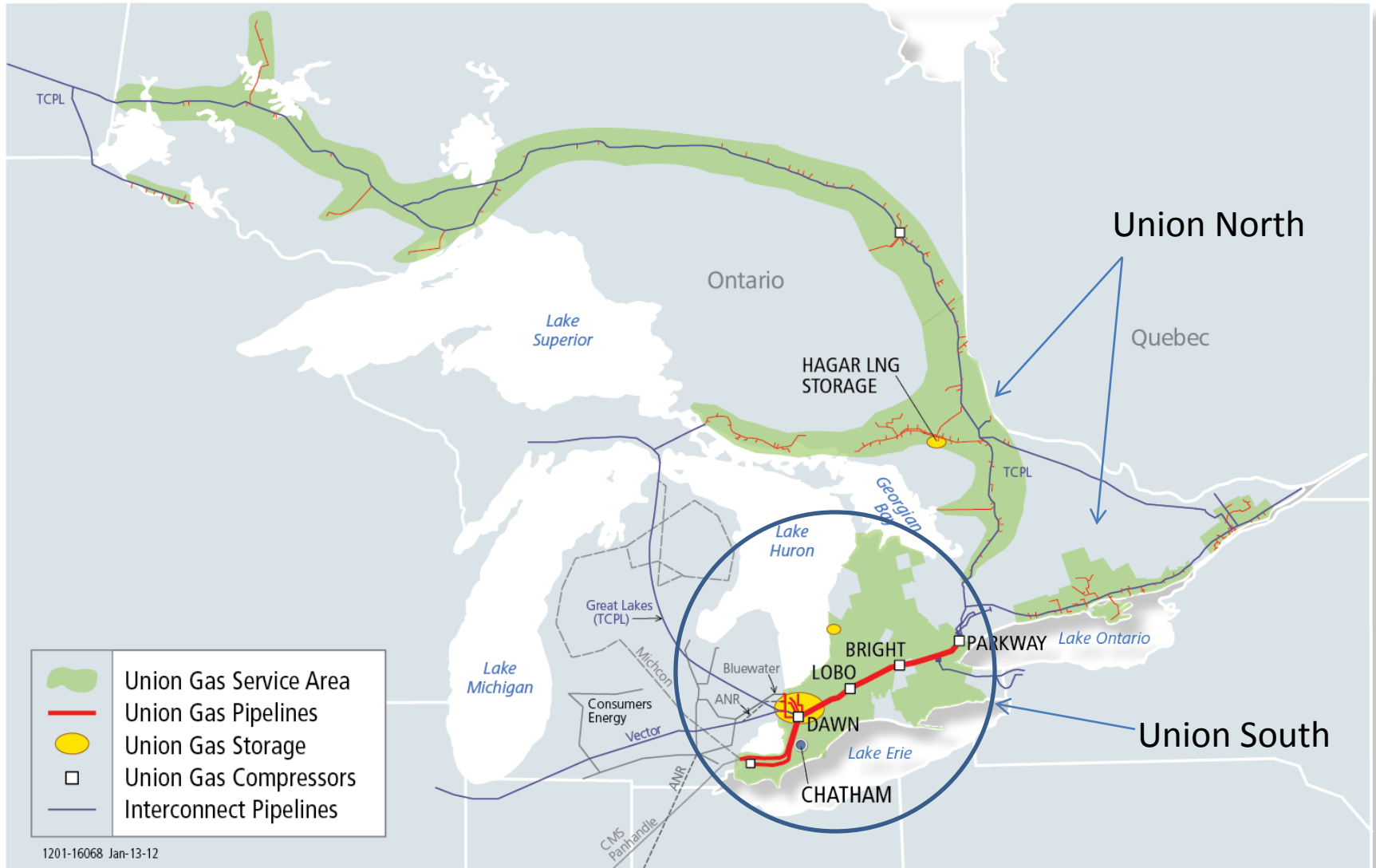


iii) Please see Attachment 5 “Winter Design Day 2013/2014 Dawn –Parkway system (Ex-franchise Demand)”. There is no obligated delivery of gas at Parkway for ex-franchise customers. These customers supply gas at Dawn and / or Kirkwall for transport on the Dawn to Parkway system with delivery at Kirkwall, Parkway (TCPL) or Parkway (Cons/Lisgar).

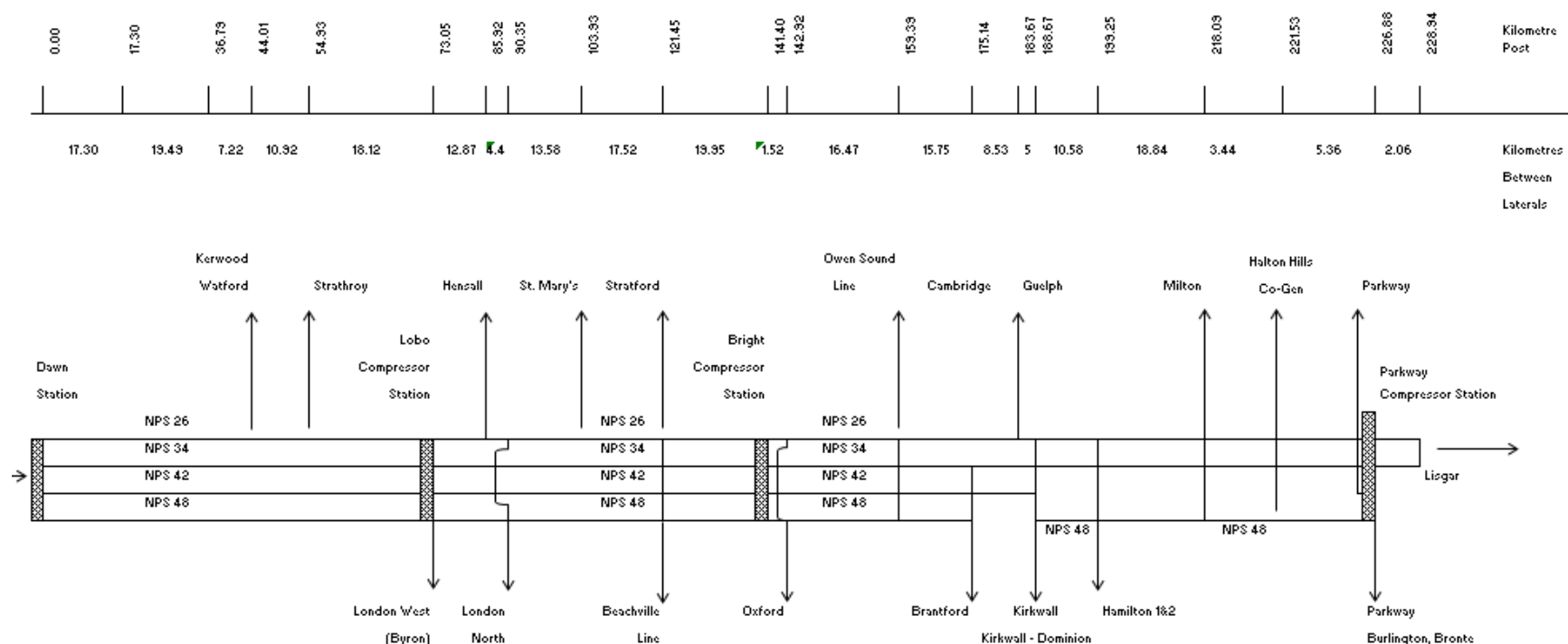
c)

<b>Year</b>	<b>Gas Delivered at Parkway (GJ) (a)</b>	<b>Gas Leaving Union’s System at Parkway (GJ) (b)</b>	<b>(c)= (b) as a percentage of (a)</b>
W10/11	697,917	4,044,865	580%
W11/12	657,583	4,203,164	640%
W12/13	654,370	4,476,585	685%
W13/14	639,088	4,595,057	720%

# Union Gas System



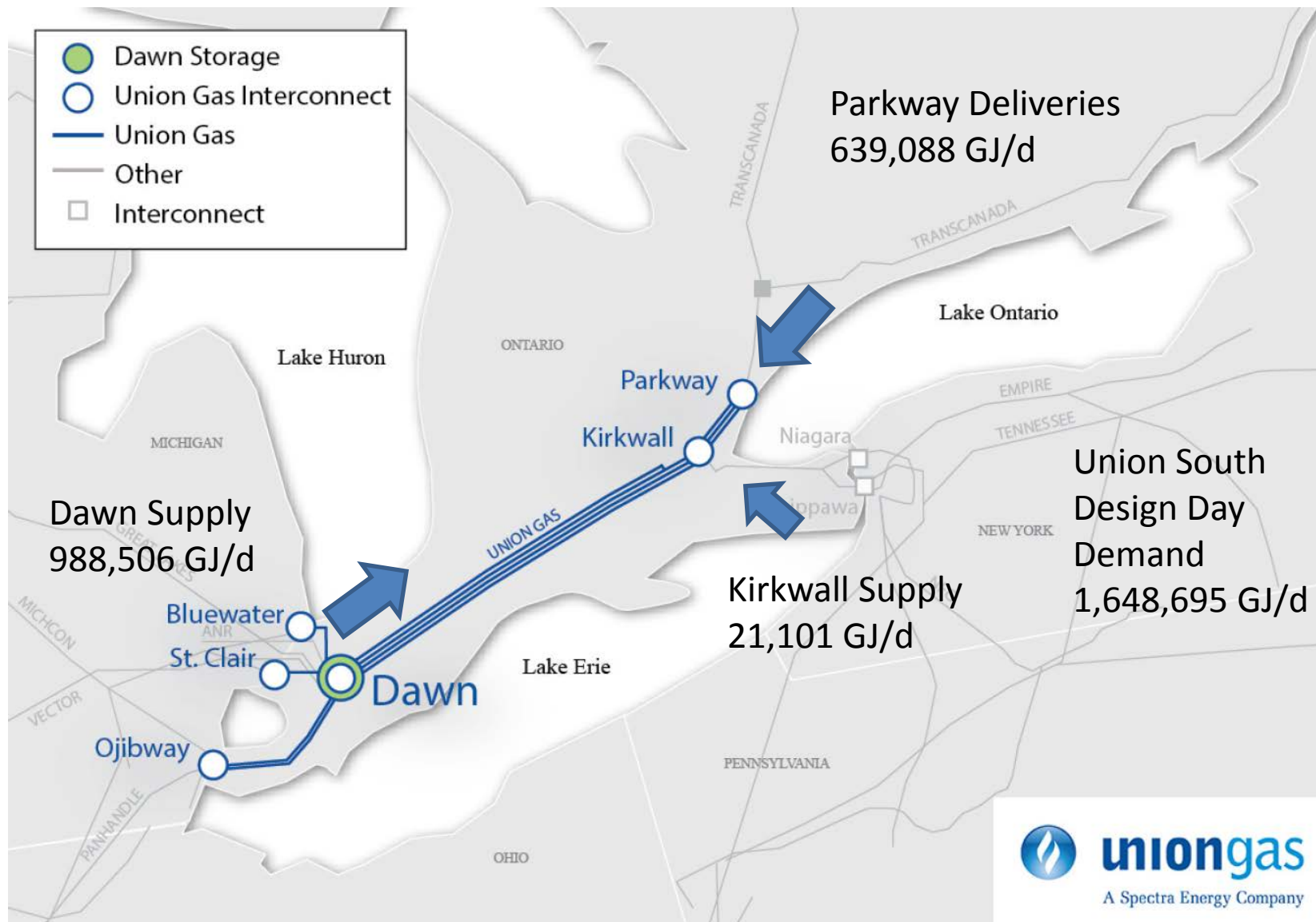
# Dawn – Parkway System Schematic



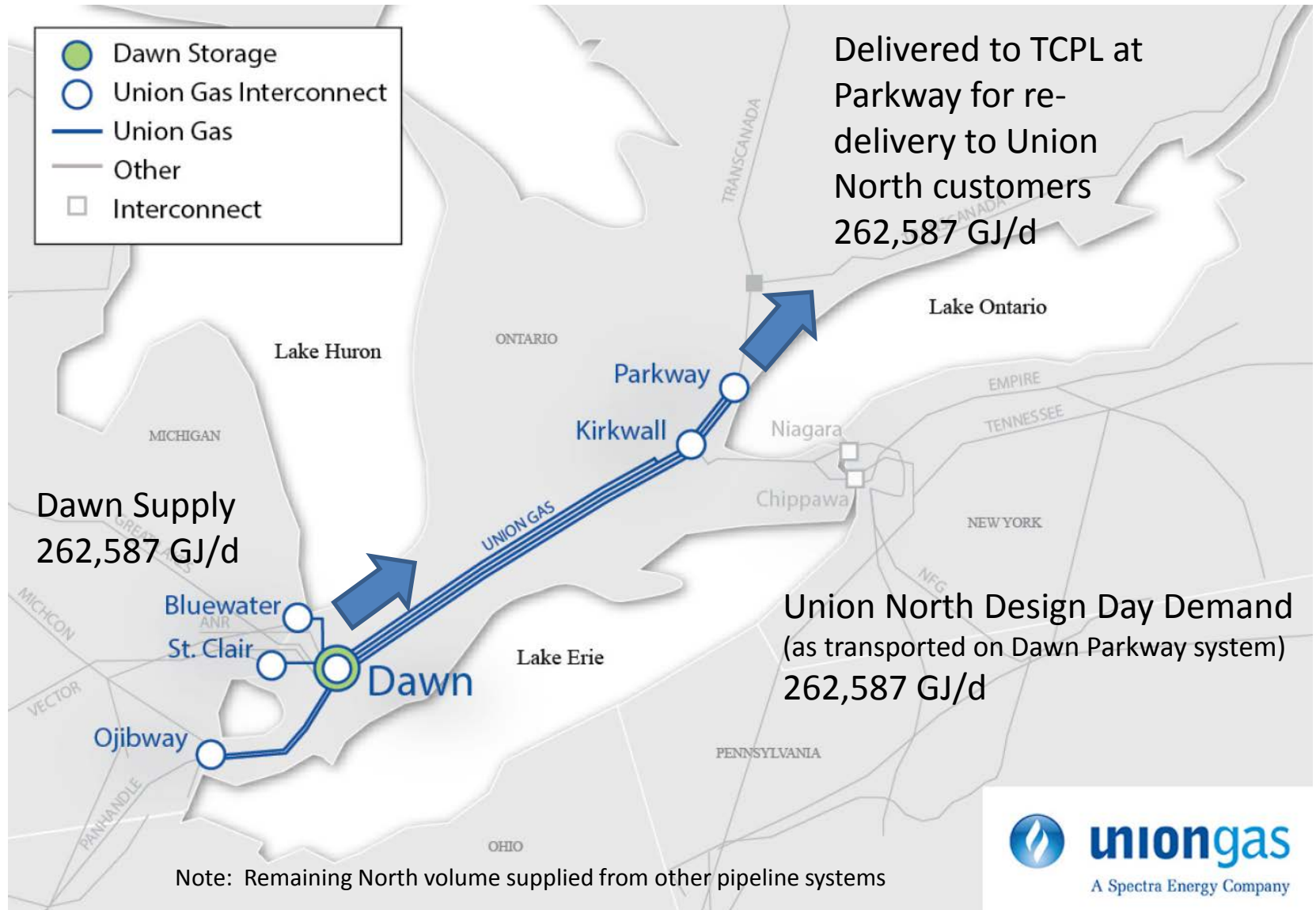
# Winter Design Day 2013/2014

## Dawn – Parkway System ( South In-franchise Demand)

Filed: 2014-01-30  
EB-2013-0365  
Exhibit B14.1  
Attachment 3



# Winter Design Day 2013/2014 Dawn – Parkway System (North Demand)





UNION GAS LIMITED

Answer to Interrogatory from  
Industrial Gas Users Association ("IGUA")

Reference: Exhibit A, Tab 4, page 3, lines 17 through 22

The evidence indicates that the Parkway delivery obligation primarily resides with Union's large volume contract rate classes.

Please explain the physical or financial gas supply options available to large volume contract rate class customers for delivery of gas to Parkway, and the current cost of each of those options relative to the cost of delivery of gas to Dawn.

---

**Response:**

Please see the response at Exhibit B2.7.

UNION GAS LIMITED

Answer to Interrogatory from  
Industrial Gas Users Association ("IGUA")

Reference: Exhibit A, Tab 4, page 4, lines 14 through 15

The evidence states: "...*the primary beneficiary of the "distance credit" are Union South general service rate classes (Rate M1 and Rate M2).*

Please quantify:

- a) The amount of the distance credit allocated to each rate class in 2013.
- b) The cost of Union's deliveries to Parkway (vs. Dawn) allocated to each rate class in 2013.

---

**Response:**

- a) Please see the response at Exhibit B4.12.
- b) The volumes landing at Parkway include capacity on Empress to CDA as well as capacity on Trunkline and PEPL through Dawn to Union CDA. Based on 2013 actual activity, the approximate total cost of Union's Parkway deliveries was \$170 million.



UNION GAS LIMITED

Answer to Interrogatory from  
Industrial Gas Users Association ("IGUA")

Reference: Exhibit A, Tab 4, page 4, table 1 and p6, lines 10 through 17

The evidence indicates a shortfall of 185 Tj/day of Dawn-Parkway capacity to displace Parkway obligated deliveries as of November, 2018. Union proposes to address this shortfall by: i) the use of 62 Tj/day of Dawn Parkway capacity held by in-franchise customers; and ii) options to be evaluated and addressed at the time of Union's 2019 cost-of-service rebasing for the remaining 123 Tj/day.

- a) Please explain why the 62 TJ/day mentioned in this evidence appears as an offset to the Parkway obligation only in 2018 and not earlier (given that the capacity is needed to relieve the customers currently holding that capacity of their Parkway delivery obligation).
- b) Please explain what options may be available to Union in 2018/19 to address the remaining 123 Tj/day of Parkway obligation.

---

**Response:**

- a) Union's proposal for the turnback of M12 Dawn-Parkway capacity by in-franchise customers is outlined at Exhibit A, Tab 4, pp. 25-26. It ensures that all direct purchase customers, including those with a contract for M12 Dawn-Parkway capacity to meet their Parkway delivery obligation, are able to reduce their Parkway delivery obligation in the same proportion and at the same time.

Line 13 on p.6 refers to the last remaining 62 TJ/d of potential turnback held by these customers and is assumed to occur in 2019 or beyond, at the same time and in the same proportion as the Parkway delivery obligation for customers that do not have a contract for M12 Dawn-Parkway capacity.

- b) Please see the response at Exhibit B6.2 part d).

UNION GAS LIMITED

Answer to Interrogatory from  
Industrial Gas Users Association ("IGUA")

Reference: Exhibit A, Tab 4, page 14, lines 2 through 8

The evidence explains that as of late 2007, a Direct Purchase customer with new load located west of Dawn are able to deliver gas to meet that load to Dawn (at the customer's option).

Please confirm that, in the result, there are currently some Direct Purchase customers located west of Dawn who deliver to Dawn, while other customers similarly located continue to be obligated to deliver to Parkway.

---

**Response:**

Confirmed. The difference can be explained by the policies regarding the allocation of upstream transportation capacity and delivery point obligations, in place at the time that the customer moved from sales service supply to direct purchase.

UNION GAS LIMITED

Answer to Interrogatory from  
Industrial Gas Users Association ("IGUA")

Reference: Exhibit A, Tab 4, page 16, lines 14 through 16

The evidence states: *"The relative proportions of Dawn and Parkway deliveries between sales service customers and direct purchase customers are different. This is primarily due to the grandfathering of DCQ obligations for direct purchase customers, as described earlier, and the evolution of the DCQ delivery obligation policies over time."*

Is there any principled basis upon which deliveries to Parkway on behalf of system supply customers should continue to be proportionately lower than deliveries to Parkway by direct purchase contract customers? If there is, please explain.

---

**Response:**

Please see the responses at Exhibit B1.9 and Exhibit B8.3.

UNION GAS LIMITED

Answer to Interrogatory from  
Industrial Gas Users Association ("IGUA")

Reference: Exhibit A, Tab 4, page 21, lines 4 through 8

The evidence indicates Union's reliance on future (October 2015 and beyond) Dawn-Kirkwall and Dawn-Parkway M12 turnback to definitively address the Parkway delivery obligation of large volume direct purchase customers.

- a) Please explain the basis for Union's confidence that the capacity to be used to address the Parkway delivery obligation will in fact be turned back.
- b) What does Union propose to do to address the Parkway delivery obligation should the turnback relied upon not in fact materialize?

---

**Response:**

- a) and b) Please see the response at Exhibit B6.2 part a).

UNION GAS LIMITED

Answer to Interrogatory from  
Industrial Gas Users Association ("IGUA")

Reference: Exhibit A, Tab 4, page 26, lines 4 through 6

The evidence indicates that Union assumes that in-franchise M12 shippers with Parkway obligations will turn back their M12 capacity as the Parkway obligation is removed.

Could these shippers continue to hold their M12 capacity and assign it to third parties rather than turn it back? Has Union considered this possibility?

---

**Response:**

Yes. In-franchise M12 capacity holders will only be able to turn back M12 capacity held in their own name that directly supports their own Parkway delivery obligation. To the extent that they decide not to turnback their M12 contract under this proposal, then the quantity not turned back remains as an obligation at Parkway.