K2.3

Ontario Energy Board
FILE No. EB-2017-0087
EXHIBIT No. K2.3
DATE January 9, 2018
08/99

EB-2017-0087

Union Gas Limted
2018 Rates

VULNERABLE ENERGY CONSUMERS COALITION

January 9, 2018

TAB 1

Ontario Energy Board
Commission de l'énergie de l'Ontario

Ontario

DECISION AND ORDER

EB-2016-0186

UNION GAS LIMITED

Application for approval to construct a natural gas pipeline in the Township of Dawn Euphemia, the Township of St. Clair and the Municipality of Chatham-Kent and approval to recover the costs of the pipeline.

BEFORE: **Allison Duff**
Presiding Member

Cathy Spoel
Member

Paul Pastirik
Member

February 23, 2017

LPMA submitted that the Project met the OEB's economic test in Stage 2. Although LPMA did not agree with all the assumptions used to calculate the NPV of the stage 2 benefits, LMPA agreed that the NPV is well in excess of the $212 shortfall in the Stage 1 NPV calculation.

Findings

The OEB finds that the Project meets the OEB's economic tests. The OEB finds that the Stage 2 benefits sufficiently exceed the Stage 1 net cost, and result in a positive NPV.

Union's Stage 1 NPV was negative $212 based on a 5-year forecast and 20-year term. The NPV changed slightly to negative $207 based on a 40-year term. With a 40-year term, the NPV for Alternative 2 changed from negative $207 to negative $201. The OEB finds the Stage 1 NPVs for the Project to be similar to Union's Alternative 2, despite a change in term.

The OEB agrees with LPMA that not all of Union's assumptions in its Stage 2 analysis may be adequately justified, but the OEB finds the $805 M in estimated benefits so large that even with some adjustments the benefits will exceed the net cost estimate in Stage 1.

Based on Union's forecast five-year demand, the OEB finds that Union has demonstrated that the economic tests required by the OEB's filing guidelines have been met.

3.3 Potential rate impacts to customers

Based on Union's proposed costs and rate recovery, the average total bill impact for Union South customers ranged from 1.2% for residential rate M1 to 5.8% for small rate M4[4].

Union's cost estimate included depreciation expense based on a 20-year depreciation period, which is shorter than the 50 years in the OEB's approved depreciation rates for these assets. The depreciation expense to be recovered from customers would be lower by $3.5 M in 2017 and $7.4 M in 2018 if depreciated over 50 years.[5]

Union submitted that a shorter amortization period was warranted given the uncertainties with Ontario's Cap and Trade program and the introduction of the government's Climate Change Action Plan (CCAP). Union submitted that these new

[4] Exhibit A, Tab 8, Schedule 6, p.2
[5] Exhibit J1.3

initiatives add significant risk to the return of any capital invested in natural gas infrastructure over the medium to long term. Union submitted that a 20-year period better aligns the recovery of the asset costs with the timing of government restrictions and potential elimination of natural gas heating of homes and businesses.

All but one of the intervenors disagreed with Union's proposal for a 20-year amortization period. They noted that the settlement agreement entered into at Union's most recent cost of service proceeding refers to OEB-approved 2013 depreciation rates. These intervenors argued that the terms of the settlement proposal prohibit the use of different depreciation rates, and that depreciation was not identified as a Y-factor in the settlement proposal. These intervenors also argued that if a change was to be considered by the OEB it should be during a rebasing year, not during the IRM term, based on a comprehensive review of all assets.

LPMA supported Union's proposal, submitting that a 20-year period reduced the risk for Union resulting from Cap and Trade and CCAP, and reduced the total net present cost to customers.

Union proposed two changes to the cost allocation methodology approved by the OEB when rates were established in 2013. The proposed cost allocation would determine how the Project costs would be recovered until 2019, the end of Union's current IRM term.

First, Union proposed to base the allocation on the Panhandle System's design day demand plus incremental design day demands of the Project. In 2013, the OEB had approved a cost allocation methodology based on design day demands from the combined Panhandle and St. Clair Systems.

Second, Union proposed to exclude ex-franchise Rate C1 and M16 firm contracted demands from the cost allocation. In 2013, the OEB had approved a cost allocation methodology that included in-franchise and ex-franchise rate classes.

Union's position is that using the combined Panhandle and St. Clair Systems to allocate costs no longer reflects the costs to serve customers on their respective parts of these Systems. In addition, Union submitted that C1 and M16 ex-franchise customers are not driving the need for the Project because their gas flows counter to the flow of design day volumes. Union's proposed allocation would result in a re-allocation of 15% of the Project costs to in-franchise customers, rather than allocating them to C1 and M16 customers. A full comparison of the current OEB-approved and the proposed allocation follows.[6]

		Design Day Demands		Project Cost Allocation Factors	
		St. Clair	Panhandle	OEB-Approved	Proposed
Line No.	Rate Class	System (%)	System (%)	Allocation (%)	Allocation (%)
		(a)	(b)	(c)	(d)
1	Rate M1	7%	40%	21%	40%
2	Rate M2	2%	14%	7%	14%
3	Rate M4	0%	14%	7%	14%
4	Rate M5	-	0%	0%	0%
5	Rate M7	-	4%	2%	4%
6	Rate T1	9%	5%	6%	5%
7	Rate T2	82%	23%	42%	23%
8	Total In-franchise	100%	100%	85%	100%
9	Rate C1	-	-	13%	-
10	Rate M16	-	-	3%	-
11	Total Ex-franchise	0%	0%	5%	0%
12	Total	100%	100%	100%	100%

All Intervenors except two disagreed with Union's proposal to change the cost allocation methodology for the Project. These intervenors submitted that a change to cost allocation should only be considered in a rebasing year, not during an IRM term, as changes to one part of cost allocation affect all other customers. LPMA, VECC and OEB staff indicated that they were not opposed to Union's proposal, but suggested further review of the impacts are required.

APPrO and IGUA supported Union, arguing that Union's cost allocation proposals were in line with the principle of cost causality and consistent with how the Panhandle System is used.

Findings

The OEB will not approve Union's proposals for a 20-year depreciation period and a revised cost allocation methodology. The OEB finds that both proposals should be deferred to Union's next cost of service or custom IR application. It would be inconsistent to change the depreciation term and cost recovery for one project, while Union's other assets are depreciated and recovered on different bases. A comprehensive review is required for parties to test, and the OEB to assess, the merits

[6] Exhibit J1.2 Attachment 2, page 3

and implications of these two proposals and this should be at Union's next cost of service or custom IR application.

While these proposals may have merit, they cannot be adequately considered during the IRM term, for one project in isolation. A leave-to-construct application requesting a capital pass-through mechanism for cost recovery over 14 months is not the appropriate forum to consider deviations from principles embedded in current OEB-approved rates.

A proper review of these issues will need to include the full range of possible amortization periods, and the impacts on all customer classes of a change to the cost allocation methodology

Given these findings, it is not necessary for the OEB to comment on whether Union's proposal is consistent with the settlement agreement.

3.4 Facilities and non-facilities alternatives to the Project

Exhibit A, Tab 6 of Union's evidence describes the alternatives to the Project that were considered by Union. Union defined an acceptable alternative as one which allows Union to maintain minimum inlet pressures on a design day and meet design day requirements to supply its downstream distribution systems. The alternatives considered by Union are intended to serve the five-year forecasted demand growth from 565 TJ/d to 671TJ/d by 2021, and further consideration for expected future growth beyond 2021.

Union's Alternative 1

This alternative involves construction of a new 30 or 36 inch pipeline from Dawn alongside the existing Panhandle pipeline which would continue to be used.

Union forecast the cost of this alternative at an NPV of negative $224 M which is $12M more expensive than the Project's estimate of negative $212 M. The Project also has the advantage of eliminating the need for additional land and easements and ongoing maintenance costs to preserve the integrity of the existing pipeline.

Union's Alternative 2

This alternative involves contracting for an additional 34 TJ/d of gas supply at Ojibway and installing incremental pipeline and station facilities along the Panhandle System to serve the remainder of the demand from Dawn.

Union's forecast of the NPV for this alternative was negative $207 M. When comparing this to the Project's NPV of negative $212 M, Union did not consider this small differential to be worth the added risk of this alternative. Union's evidence is that

TAB 2

June 10, 2016

BY COURIER & RESS

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

Dear Ms. Walli:

RE: EB-2016-0186 – Panhandle Reinforcement Project – Union Gas Limited ("Union")

Enclosed please find two copies of Union's Application and pre-filed evidence in relation to the above-noted project.

The Application and pre-filed evidence have been filed through the Ontario Energy Board's RESS and will be available on Union's website at: www.uniongas.com.

The Panhandle Reinforcement Project ("the Project") involves the construction of approximately 40 km of NPS 36 pipeline extending from Union's Dawn Compressor Station to the Dover Transmission Station. The Project also requires related modifications at several stations.

The Panhandle System consists of an existing NPS 16 and NPS 20 pipeline. As detailed in evidence, to construct the Project, Union will remove the existing NPS 16 pipeline and replace it with a new NPS 36 pipeline. This "lift and lay" construction process allows the new pipeline to be installed in the same easement as the NPS 16, thus minimizing land and environmental impacts.

The Panhandle System represents the primary pipeline asset to transport natural gas from Dawn and the Ojibway Valve Site ("Ojibway") in Windsor to high pressure distribution pipelines serving residential, commercial and industrial in-franchise markets in Chatham-Kent, Windsor, Lakeshore, Leamington, Kingsville, Essex, Amherstburg, LaSalle, and Tecumseh (the "Market"). Union has served this Market for decades using the existing NPS 16 and NPS 20 pipelines with limited pipeline reinforcement.

The Panhandle System is nearing its Design Day capacity. Based on the limited capacity available, the Project is critical to ensuring the continued reliable and secure delivery of natural gas to the Market. Union has recognized the urgent need for natural gas infrastructure reinforcement in Southwestern Ontario. In short, if the Project is not constructed, firm demand growth in the

Table 8-3
Comparison of Board-Approved vs. Proposed 2018 Project Cost Allocation Factors

Line No.	Rate Class	Board-Approved Allocation ($10^3m^3/d$)	Board-Approved Allocation (%)	Proposed Allocation ($10^3m^3/d$)	Proposed Allocation (%)	Variance ($10^3m^3/d$)	Variance (%)
		(a)	(b)	(c)	(d)	(e) = (c-a)	(f) = (d-b)
1	Rate M1	3,789	21%	5,623	40%	1,834	19%
2	Rate M2	1,289	7%	1,915	14%	627	7%
3	Rate M4	1,174	7%	1,968	14%	793	8%
4	Rate M5	18	0%	30	0%	12	0%
5	Rate M7	338	2%	570	4%	232	2%
6	Rate T1	1,023	6%	678	5%	(345)	-1%
7	Rate T2	7,560	42%	3,202	23%	(4,357)	-19%
8	Total In-franchise	15,191	85%	13,986	100%	(1,204)	15%
9	Rate C1	2,264	13%	-	0%	(2,264)	-13%
10	Rate M16	473	3%	-	0%	(473)	-3%
11	Total Ex-franchise	2,737	15%	-	0%	(2,737)	-15%
12	Total	17,927	100%	13,986	100%	(3,941)	

Union's proposed allocation of the Project-related costs results in a decrease in the allocation factor of Rate T1, Rate T2, Rate C1 and Rate M16 and an equal and offsetting increase to the allocation factors of the remaining Union South in-franchise rate classes. There is no impact to Union North rate classes related to Union's proposed cost allocation compared to the Board-approved cost allocation.

The allocation to Rate T1 and Rate T2 decreases as a result of the difference between the Board-approved allocation factor based on the combined Panhandle System and St. Clair System Design Day demands and the proposed allocation based on the Design Day demands on the Panhandle System only. The Rate T1 and Rate T2 Design Day demands on the St. Clair System are proportionately greater than the updated Design Day demands on the Panhandle System. By excluding the Design Day demands on the St. Clair System in the allocation of the Project costs, the Rate T1 and Rate T2 allocation decreases by 1% (from 6% to 5%) and 19% (from 42% to 23%), respectively. The Rate T1 and Rate T2 Design the proposed allocation is provided at Table 8-8. The detailed comparison of the Board-approved and proposed cost allocation of the 2018 Project costs, net of the incremental Project revenue, is provided at Exhibit A, Tab 8, Schedule 5.

Table 8-8
Comparison of Board-Approved and Proposed
2018 Project Cost Allocation Impacts

Line No.	Particulars ($000's)	Board-Approved (a)	Proposed (b)	Difference (c) = (b - a)
	In-franchise South			
1	Rate M1	4,978	10,553	5,576
2	Rate M2	1,927	3,824	1,897
3	Rate M4	1,177	3,143	1,966
4	Rate M5	(2)	32	34
5	Rate M7	254	796	542
6	Rate T1	1,520	1,252	(268)
7	Rate T2	11,818	6,316	(5,502)
8	Other	8	8	-
9	Total In-franchise South	21,680	25,925	4,245
	Ex-franchise			
10	Rate C1	3,594	79	(3,514)
11	Rate M16	714	(16)	(731)
12	Other	286	286	-
13	Total Ex-franchise	4,595	350	(4,245)
14	Total In-franchise North	(667)	(667)	-
15	Net Revenue Requirement	25,607	25,607	-

As a result of Union's proposed allocation, the net revenue requirement results in: (i) an increase of approximately $26.0 million allocated to Union South in-franchise rate classes, (ii) an increase of approximately $0.4 million allocated to ex-franchise rate classes and (iii) a decrease of approximately $0.7 million allocated to Union North in-franchise rate classes, per Table 8-8, column (b).

UNION GAS LIMITED
Panhandle Reinforcement Project Revenue Requirement

Line No.	Particulars ($000's)	2017 (a)	2018 (b)
	Rate Base Investment		
1	Capital Expenditures	243,651	20,818
2	Average Investment	26,990	241,849
	Revenue Requirement Calculation:		
	Operating Expenses:		
3	Operating and Maintenance Expenses (1)	3	15
4	Depreciation Expense (2)	6,008	12,536
5	Property Taxes	261	1,569
6	Total Operating Expenses	6,271	14,120
7	Required Return (5.775% x line 2) (3)	1,559	13,966
	Income Taxes:		
8	Income Taxes - Equity Return (4)	312	2,799
9	Income Taxes - Utility Timing Differences (5)	(3,123)	(3,706)
10	Total Income Taxes	(2,811)	(907)
11	Total Revenue Requirement (line 6 + line 7 + line 10)	5,019	27,179
12	Incremental Project Revenue	250	1,572
13	Net Revenue Requirement (line 11 - line 12)	4,768	25,607

Notes:

(1) Expenses include incremental O&M for stations and pipe.

(2) Depreciation expense based on an estimated 20-year useful life of the Project assets.

(3) The required return of 5.775% assumes a capital structure of 64% long-term debt at 4.00% and 36% common equity at the 2013 Board-approved return of 8.93% (0.64 x 0.0400 + 0.36 x 0.0893).
The 2018 required return calculation is as follows:
$241.849 million x 64% x 4.00% = $6.191 million plus
$241.849 million x 36% x 8.93% = $7.775 million for a total of $13.966 million.

(4) Taxes related to the equity component of the return at a tax rate of 26.5%.

(5) 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.

UNION GAS LIMITED

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

Reference: Exhibit A, Tab 8, Schedule 2

Why is the Project Allocation Factor for T2 reduced from forty-four percent (2013 April) to twenty-four percent and twenty-three percent (in 2017 and 2018, respectively)?

Response:

The 2013 Board-approved cost allocation methodology includes an allocation to ex-franchise Rate C1 and Rate M16 based on firm contracted demands and an allocation to in-franchise rate classes in proportion to the combined Panhandle System and St. Clair System Design Day demands. Union's proposed allocation factors use only the 2013 Board-approved Panhandle System Design Day demands updated for the incremental Project Design Day demands. The decrease in the allocation for Rate T2 from 44% to 24% and 23% in 2017 and 2018 respectively, is a result of removing the ex-franchise firm contract demands and the St. Clair System Design Day demands from the Board-approved allocation methodology, net of any increase related to the incremental Panhandle System Design Day demands added to the proposed allocation factors.

TAB 3

UNION GAS LIMITED

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

Reference:

Panhandle Reinforcement Project; Exhibit A, Tab 1, pp.8-10, Appendix G, p.6

a) Please provide the calculation which shown the reduction of Panhandle Project by the increased revenue allocated to rate class in proportion to the Panhandle system and St. Clair system design day demand.

b) Please show the calculation for, and provide and explanation for, each number shown in column 2, Table 2, entitled "2018 Revenue Requirement Allocation to Rate Classes".

Response:

a) Please see Rate Order, Appendix G, p.7 for the allocation of incremental Panhandle Reinforcement Project revenue by rate class deducted from the allocation of Panhandle Reinforcement Project costs.

b) Please see Exhibit B.BOMA.4, Attachment 2 for the calculation of the 2018 incremental project revenue of $3.104 million. The incremental project revenue is allocated to rate classes using the 2013 OEB-approved allocation methodology for Ojibway/St.Clair Demand costs updated for the Panhandle Reinforcement Project as shown at Exhibit B.CME.1, Attachment 1, line 18.

   See Table 1 for the detailed calculation of the incremental Project revenue allocation by rate class. There is an immaterial variance in the allocation by rate class compared to the allocation in Rate Order, Appendix G, p.7 which Union proposes to address with final disposition of the account balance in the 2018 Panhandle Reinforcement Project Costs deferral account.

Table 1
Allocation of 2018 Panhandle Reinforcement Project Revenue

Line No.	Particulars	Updated Ojibway/ St. Clair Design Day Demands (10^3m^3/d) (1)	Project Revenue Allocation ($000's) (2)	Proposed Revenue Allocation ($000's) (3)	Variance in Revenue Allocation ($000's)
		(a)	(b)	(c)	(d) = (c-b)
1	Rate M1	3,789	656	648	(8)
2	Rate M2	1,289	223	221	(2)
3	Rate M4	1,174	203	237	34
4	Rate M5	18	3	3	(0)
5	Rate M7	338	59	73	15
6	Rate T1	1,023	177	180	3
7	Rate T2	7,560	1,309	1,295	(14)
8	Subtotal - Union South	15,191	2,630	2,658	28
9	Rate C1	2,264	392	368	(23)
10	Rate M16	473	82	77	(5)
11	Subtotal - Ex-franchise	2,737	474	445	(28)
12	Total	17,927	3,104	3,104	-

Notes:
(1) Exhibit B.CME.1, Attachment 1, line 18.
(2) Allocated in proportion to column (a).
(3) Rate Order, Appendix G, p.7, column (b).

UNION GAS LIMITED
Panhandle Reinforcement Project Revenue Requirement

Line No.	Particulars ($000's)	2018 (a)
	Rate Base Investment	
1	Capital Expenditures	20,818
2	Average Investment	249,046
	Revenue Requirement Calculation:	
	Operating Expenses:	
3	Operating and Maintenance Expenses	15
4	Depreciation Expense	5,185
5	Property Taxes	1,569
6	Total Operating Expenses	6,769
7	Required Return (5.775% x line 2)	14,382
	Income Taxes:	
8	Income Taxes - Equity Return	2,882
9	Income Taxes - Utility Timing Differences	(6,356)
10	Total Income Taxes	(3,474)
11	Total Revenue Requirement (line 6 + line 7 + line 10) (1)	17,677
12	Incremental Project Revenue (2)	3,104
13	Net Revenue Requirement (line 11 - line 12)	14,574

Notes:
(1) EB-2016-0186, Exhibit A, Appendix B, Schedule 1, column (b), line 11.
(2) Incremental Project Revenue includes incremental project transmission and distribution margin based on October 2017 QRAM rates.