



uniongas

A Spectra Energy Company

October 11, 2007

Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Attention: Ms. Kirsten Walli, Board Secretary

**Re: Multi-Year Incentive Rate Regulation for Natural Gas Utilities
EB-2007-0606**

Dear Ms. Walli:

Enclosed, please find:

- Responses to the October 3, 2007 Technical Conference Undertakings.
- Corrections to the following Interrogatory Responses: C1.8, Page 2 of 3, C1.10 and C13.3, Page 2 of 2.

pertaining to Union's application for an order approving a multi-year incentive rate mechanism to determine rates for Union's regulated gas distribution, transmission and storage services effective January 1, 2008.

Yours truly,

[original signed by]

Connie Burns, CMA, PMP
Manager, Regulatory Initiatives

Enclosure

cc: All Intervenors
Michael Penny, Torys

UNION GAS LIMITED

Undertaking of Union Gas
To Board Staff

Ref: Ex. D, Tab 3, Sch.11, p.1

Under Union's proposal, the delivery charge for residential customers in the Southern delivery area would increase by 4.2% in 2008 for a customer consuming 2,600 m³/yr.

Please indicate what percentage rate change a similar customer experienced in 2007 under a cost of service regulatory regime.

The bill impact of 4.2% for the average residential customer in the Southern Operations area consuming 2,600 m³ per year represents the combined impact of moving to the 20 year declining trend weather normalization method, implementing those items already approved by the Board and Union's proposals related to the price cap formula. Union estimates that the impact on the average residential customer associated with its price cap proposal alone to be approximately 1.9%.

In 2007, the comparable impact on a residential customer consuming 2,600 m³ was 3.1% (EB-2005-0520, Rate Order, Working Papers, Schedule 19, page 1).

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UNION GAS LIMITED

Undertaking of Union Gas
To Vulnerable Energy Consumer's Coalition ("VECC")

Ref.: Exhibit 32.2 (c) and (e)

Issue Number: 4.2

Issue: How should the impact of changes in average use be calculated?

- a) Please provide comparable figures to those provided in 32.2 (c) and (e) for all rate classes for the percentages of customer related costs and of fixed costs recovered through fixed charges.
 - b) Please provide a response to the following hypothetical scenario: consider a gas distribution utility that was regulated under a cost-of-service regime that had two rate classes, a general service rate class and a contract class. Total fixed costs in year 0 are \$200 of which \$100 is allocated to general service and \$100 is allocated to contract. Rates are designed so as to recover \$102 from general service and \$98 from contract. Recovery of fixed costs from general service is through a combination of a fixed charge and variable charge whereas recovery of the fixed costs from contract is entirely from a fixed demand charge. In particular, based on the forecast demand from the contract class, the demand charge is set to exactly recover \$98 from the contract class. Expectations are realized in year 0 (e.g., actual HDDs are as forecast and approved, etc.,) and the fixed costs are entirely recovered, \$102 from general and \$98 from contract. In the following year, year 1, total fixed costs are still \$200 but the contract demand for the contract class has fallen by 10%:
 - a. Under a cost-of-service regime, are the two rate "baskets" self contained or can a reduction in revenue from one be recovered from the other?
 - b. Under a price cap scheme, are the two rate "baskets" self contained or can a reduction in revenue from one be recovered from the other?
 - c. Under a cost-of-service regime, how would rates be set for year 1.; and
 - d. Under a price cap regime whereby maximum rate increases are set according to a pre-specified formula dependent on exogenous inputs (e.g., economy-wide inflation rate less a predetermined, fixed offset, the latter of which is specific to each of the rate classes), how would rates be set for year 1?
-

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Proportion of fixed costs that are recovered through fixed charges for all rate classes
Approved 2007

Rate Class	Revenue					Costs					Customer Charge Revenue to Cost Ratio (%) (k) = (a)/(f)	Demand Charge Revenue to Cost Ratio (%) (l) = (b)/(g)	Total Fixed Revenue to Cost Ratio (%) (m) = (c)/(h)
	Customer Charge (a)	Demand Charge (b)	Total Fixed (c) = (a)+(b)	Total Variable (d)	Total Revenue (e) = (c)+(d)	Customer Related (f)	Demand Related (g)	Total Fixed (h) = (f)+(g)	Total Variable (i)	Total Costs (j) = (h)+(i)			
Rate 01	56,769	0	56,769	76,183	132,952	99,129	32,756	131,885	4,311	136,196	57%	0%	43%
Rate 10	2,488	0	2,488	19,394	21,882	5,301	13,462	18,763	1,912	20,675	47%	0%	13%
Rate 20	689	5,369	6,058	1,386	7,444	696 (1)	11,285	11,981	493	12,474	98%	48%	51%
Rate 100	232	11,138	11,370	4,783	16,153	237	16,995	17,232	810	18,042	98%	66%	66%
Rate 25	226	0	226	2,177	2,403	526 (1)	4,401	4,927	217	5,144	43%	0%	5%
Rate 77	2	26	28	0	28	3	19	22	0	22	67%	137%	127%
Rate M1	188,176	0	188,176	171,277	359,453	245,566	115,980	361,546	11,880	373,426	77%	0%	52%
Rate M2	5,862	0	5,862	45,487	51,349	6,985	37,020	44,005	5,150	49,155	84%	0%	13%
Rate M4	0	9,575	9,575	4,193	13,768	1,254	13,176	14,430	3,167	17,597	0%	73%	66%
Rate M5A - Firm	0	741	741	1,209	1,950	195	666	861	460	1,321	0%	111%	86%
Rate M5A - Interruptible	816	0	816	5,272	6,088	913	5,425	6,338	2,092	8,430	89%	0%	13%
Rate M7 - Firm	0	5,647	5,647	890	6,537	524	7,393	7,917	1,262	9,179	0%	76%	71%
Rate M7 - Interruptible	0	0	0	132	132	12	324	336	57	393	0%	0%	0%
Rate M9	0	460	460	132	592	42	452	494	132	626	0%	102%	93%
Rate M10	0	0	0	5	5	15	19	34	8	42	0%	0%	0%
Rate T1 - Firm	1,502	34,868	36,370	16,563	52,933	1,620	37,163	38,783	14,419	53,202	93%	94%	94%
Rate T1 - Interruptible	230	0	230	1,870	2,100	248	2,857	3,105	242	3,347	93%	0%	7%
Rate T3	206	3,935	4,141	1,447	5,588	206	4,222	4,428	1,496	5,924	100%	93%	94%
	<u>257,198</u>	<u>71,759</u>	<u>328,957</u>	<u>352,400</u>	<u>681,357</u>	<u>363,472</u>	<u>303,615</u>	<u>667,087</u>	<u>48,108</u>	<u>715,195</u>			
Total General Service	253,295	0	253,295	312,341	565,636	356,981	199,218	556,199	23,253	579,452	71%	0%	46%
All other Rate Classes - Firm	2,631	71,759	74,390	30,608	104,998	4,792	91,390	96,182	22,247	118,429	55%	79%	77%
All other Rate Classes - Interruptible	1,272	0	1,272	9,451	10,723	1,699	13,007	14,706	2,608	17,314	75%	0%	9%
	<u>257,198</u>	<u>71,759</u>	<u>328,957</u>	<u>352,400</u>	<u>681,357</u>	<u>363,472</u>	<u>303,615</u>	<u>667,087</u>	<u>48,108</u>	<u>715,195</u>			
* Existing Rate M2	189,516	0	189,516	221,287	410,803	252,551	153,000	405,551	17,030	422,581	75%	0%	47%

Notes:

(1) EB-2005-0520, Schedule 6, Working Papers.

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- b)
- a. Under a cost of service regime, the reduction in revenue from one “basket” can be recovered from the other “basket”, i.e. the baskets are not self-contained. While total fixed costs of \$200 have not changed, a reduction in contract demand in the contract class will result in lower costs being allocated to the contract “basket”. Rates will be set to recover the total revenue requirement.
 - b. Under a price cap scheme, changes in each of the “baskets” are separate and independent of the other “basket”, i.e. self-contained. The respective price cap inflator is applied to each of the “baskets”. Under a price cap scheme, Union manages reductions in revenue arising from changes in demand.
 - c. Since contract demand for the contract class has fallen by 10% and total fixed costs of \$200 have not changed, more costs will be allocated to the General Service class under a cost-of-service regime.

Rates for Year 1 would be set considering (in no particular order) the following factors:

1. the revenue deficiency for the company as a whole;
 2. the relative rate changes to other rate classes;
 3. the allocated cost of service;
 4. the level of current rates and the magnitude of the proposed change;
 5. the potential impact on customers;
 6. the level of contribution to fixed cost recovery;
 7. customer expectations with respect to rate stability and predictability; and
 8. equivalency of comparable service options.
- d. Under a price cap regime whereby maximum rate increases are set according to a pre-specified formula, Union would apply the rate class specific price cap inflator to each rate class.

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UNION GAS LIMITED

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Please provide the annual cost corresponding to the net plant value of \$3.499B that was provided in the original answer.

The carrying costs associated with Union's 2007 rate base are (in millions):

Depreciation	\$178.5
Return on rate base	267.9 (interest and equity)
Income taxes	21.4
Property and capital taxes	<u>68.7</u>
	\$536.5

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UNION GAS LIMITED

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Exhibit C32.13 (a)

Please comment, regarding the claim of accelerating, decreasing normalized average use, in light of the fact that the data Union has provided appears to show that for the latest 7 years, 2000-2006, the average percentage decline in M2 NAC was 1.21% whereas for the previous seven-year period, 1993 - 1999, the average percentage decline in M2 NAC was 1.29%.

The average annual rate of NAC decline for the entire rate M2 customer class for the period 1993 to 1999 is 1.6 %. The annual rate of decline for the 2000 to 2006 period is also 1.6%. These annual rates of decline are obtained from total rate M2 data (normalized volumes and number of customers) including the commercial tobacco processing accounts. The 2007 weather normal and coefficients were used to normalize the data.

Union's evidence and interrogatory responses provided do not refer to NAC declines of 1.21% for the 2000 to 2006 period and the 1.29% for 1993 to 1999 period. Union Gas does not understand where these figures come from.

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UNION GAS LIMITED

Undertaking of Union Gas
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Exhibit C32.24 b)

Please repeat the Goldfeld-Quandt test using HDD data from Toronto Pearson from 1960 through 2006.

Toronto Pearson airport weather HDD data: 1960 to 2006 split first 20 years and last 20 years.

Goldfeld-Quandt test

Number of Observations in each period	20
Degrees of freedom (dgf)	18

		SEE	SEE/dgf	F
From_1987 to 2006	SEE1/dgfl =	275	15	1.65
From_1960 to 1979	SEE2/dgfl2 =	166	9	
		95% Critical Value		3.07

Conclusion: Heteroskedasticity is not present.

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UNION GAS LIMITED

Undertaking of Union Gas to
The Building Owners and Managers Association of the Greater Toronto Area ("BOMA")
The London Property Management Association ("LPMA")
The Wholesale Gas Service Purchasers Group ("WGSPG")

C3/C16/C33.1 part c

In order to more accurately determine the change in rates for customers to be served under the new M2 rate class, please provide an additional table for an M2 with an annual consumption of 50,000 m3 and an additional table for an M2 customer with an annual volume of 100,000 m3.

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Commercial Bill Comparison
General Service - Rate M2
Based on an annual consumption of 50,000 m³

Line No.	Year	EBRO Number	Delivery & Storage (\$)	Transportation (\$)	Commodity (\$)	Estimated Annual Bill (\$)
	(a)	(b)	(c)	(d)	(e)	(f)
1	1993	476-03-04	3,577	1,746	3,740	9,062
2	1994	476-06	3,403	1,822	4,109	9,333
3	1995	486	3,588	1,608	3,268	8,465
4	1996	486-04	3,588	1,789	3,102	8,480
5	1997	494	3,394	2,286	3,645	9,325
6	1998	494-06A	3,686	1,705	3,951	9,342
7	1999	499	3,273	1,703	5,131	10,107
8	2000	RP-1999-0017	3,340	1,703	15,658	20,700
9	2001	RP-2001-0029	3,506	2,132	9,800	15,438
10	2002	RP-2001-0029	3,300	2,132	9,800	15,232
11	2003	RP-2002-0130	3,146	2,265	13,027	18,438
12	2004	RP-2003-0063	3,221	1,885	13,341	18,447
13	2005	RP-2003-0063	2,882	2,027	14,777	19,687
14	2006	EB-2005-0531	2,809	1,785	20,836	25,430
15	2007	EB-2006-0502	2,764	1,678	12,416	16,857

Note: includes rate riders

Commercial Bill Comparison
General Service - Rate M2
Based on an annual consumption of 100,000 m³

Line No.	Year	EBRO Number	Delivery & Storage (\$)	Transportation (\$)	Commodity (\$)	Estimated Annual Bill (\$)
	(a)	(b)	(c)	(d)	(e)	(f)
1	1993	476-03-04	6,200	3,491	7,479	17,171
2	1994	476-06	5,853	3,644	8,218	17,714
3	1995	486	6,163	3,217	6,536	15,915
4	1996	486-04	6,163	3,579	6,204	15,946
5	1997	494	5,774	4,572	7,290	17,635
6	1998	494-06A	6,358	3,410	7,902	17,669
7	1999	499	5,635	3,405	10,262	19,303
8	2000	RP-1999-0017	5,767	3,405	31,316	40,488
9	2001	RP-2001-0029	6,057	4,263	19,601	29,921
10	2002	RP-2001-0029	5,702	4,263	19,601	29,566
11	2003	RP-2002-0130	5,444	4,529	26,054	36,028
12	2004	RP-2003-0063	5,661	3,769	26,682	36,112
13	2005	RP-2003-0063	5,015	4,055	29,555	38,625
14	2006	EB-2005-0531	4,868	3,570	41,673	50,111
15	2007	EB-2006-0502	4,878	3,357	24,831	33,065

Note: includes rate riders

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C3/C16/C33.3

This response seems to indicate that the volumes for rate M1, M2, 01 and 10 customers would be lower due to the move to the 20 year trend model and that these are the only rate classes impacted by the change.

- a) Please explain how the response to C15.8, which indicates that rates T3, M9 and U9 customers would be allocated less storage capacity coincides with this statement.
- b) If they are allocated less storage capacity but their volumes are not changed, should there not be a reduction in the rates to these customer classes? If not, explain why not.
- c) What is the reduction in storage space and the associated costs allocated to M9 and to M10 customers of moving to the 20 year declining trend methodology?
- d) Please confirm that the reduction in degree days leads to an overall reduction of the in-franchise storage requirement of 1.4 PJ (C22.5). What is the current value of the associated storage services storage capacity on the secondary markets?
- e) The response to C22.5 also indicates that there would be a minimal impact on the storage rate because the reduction in volume associated with the move to the 20 year trend would result in a corresponding reduction in storage costs. Please provide the analysis Union has completed to show this one-to-one relationship.

-
- a) For purposes of financial reporting, the only rate classes Union weather normalizes are its general service rate classes (M1 (in the future), M2, Rate 01 and Rate 10). Exhibit C15.8 refers to the weather normalization of U9 and T3 as part of the forecast process. Customers are given an opportunity to review the forecast and request changes if they do not agree with the forecast level. Union will weather normalize the forecast at the request of the customer.
 - b) The change in weather normalization method will result in a change in the monthly consumption profile and an overall reduction in throughput for rate classes that are weather normalized. For rate classes that are not weather normalized but may have a degree of weather sensitivity, it is not appropriate to look at the rate impacts related to a change in allocated storage costs in isolation. Although changes in the allocation of storage costs will

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put downward pressure on the rate, the recovery of distribution and transmission related costs will have an offsetting effect as these costs will need to be recovered over lower volumes.

- c) M9 and M10 customers may or may not see a reduction depending on the final forecasts agreed to by the customers and Union. If accepted by the Board, the 20 year declining trend method would be used as a tool in determining the forecast for each customer. If it was adopted by Union and all customers in the M9 and M10 rate classes the total impact on the M9 rate class would be approximately 6,000 GJ and on the M10 rate class would be 15 GJ.
- d) If the 20 year declining method was approved, the total in-franchise storage requirement would be reduced by approximately 1.4 PJs. Offsetting some of this reduction would be any new customer additions throughout the incentive regulation term. The current value of the 1.4 PJs on the secondary market would be approximately \$1.3 million for a one year storage contract.
- e) By virtue of how Union calculates its cost based storage rates, the average unit cost of storage will not be impacted by a reduction in storage space and deliverability used by specific rate classes. Please refer to Exhibit D, Tab 3, Schedule 9.

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C3/C16/C33.6

The response in part a indicates that that the proposal to adjust the split between fixed and variable cost recovery extends to the contract rate classes, but that Union does not anticipate any significant shift in cost recovery within these rate classes since the majority of fixed costs are recovered through fixed charges.

- a) Please confirm that fixed costs include customer costs and demand costs.
- b) For each contract rate class, please provide the Board approved 2007 proportion of fixed costs that are recovered through fixed charges.
- c) Does Union envision a ceiling on its ability to shift cost recovery within the contract rate classes such that it would be unable to increase the fixed charges above that needed to recover the fixed costs? If not, why not?

-
- a) Confirmed.
 - b) Please refer to response provided at Exhibit JTA.5.
 - c) In general, Union does not envision increasing fixed cost recovery through fixed rates above the level of fixed costs in the contract market.

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C3/C16/C33.9

- a) What is the actual OEB cost assessment for 2007, as compared to the forecast of \$3.7 million?
- b) What is the actual cost of Union's 2007 rates proceeding, as compared to the forecast cost of \$4.6 million?
- c) What is the projected actual cost for other proceedings in 2007, as compared to the \$1.0 million forecast? Please provide a budget breakdown of the \$1.0 million forecast and the projected actual figure by proceeding.

-
- a) \$3.8 million.
 - b) \$2.4 million.
 - c) Union has not updated the \$1.0 million forecast cost of other regulatory proceedings. However, Union anticipates that its share of the incentive regulation proceeding on its own may be well in excess of the \$1.0 million forecast cost of all other regulatory proceedings.

There is no breakdown of the \$1.0 million forecast cost for other regulatory proceedings. Union anticipated that it would be involved in a number of regulatory proceedings in 2007 but the budget was created at the aggregate level.

Union has incurred \$0.6 million to date; \$0.3 million for incentive regulation, \$0.2 million for NGEIR and \$0.1 million for other.

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C3/C16/C33.18

Part b of the question requested the normalized average uses for all rate classes for 1995 through 2006. The response refers to C32.13 a) which deals only with rate classes that are normalized. Part b of that question asked for the average use data for all rate classes. This part of the question was not answered. Please provide the normalized average use for all rate classes (including those that are not normalized, i.e. normalized average use equals actual average use).

Please refer to interrogatory response provided at Exhibit C32.13 b) Supplemental.

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C3/C16/C33.17&18 (and C13.18)

Union indicates that for contract customers the change in average use is not important because the majority of the fixed costs for these customers are recovered through demand charges. Please provide the proportion of fixed costs recovered through fixed charges for each rate class, contract and general service based on the 2007 Decision. Please include both the existing M2 rate class proportion and the approved M1 and new M2 proportions.

Please refer to response provided at Exhibit JTA.5.

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C3/C16/C33.27

- b) What portion of the \$1.892 million shown in the response to part c would be allocated to Union's regulated operations?

Approximately 94% of the \$1.892 million would be allocated to Union's regulated operations.

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C3/C16/C33.34

Part b of the question has not been answered in full as the response found in C23.12 does not provide the same analysis performed by Enbridge.

- a) Please provide the same analysis as used in the Enbridge EB-2006-0034 proceeding including the same period for the analysis of 1990 through 2005, and the calculation of the MPE, MAPE, RMSPE, O/U and standard deviation statistics.
- b) Please provide the ranking of the results for each of the South and North areas using the same weighting scheme utilized by Enbridge.
- c) Did Union have actual 2006 degree day data when it filed its 2007 rates application?
- d) Is Union's analysis based on the premise of a 2 year ahead forecast (for example, the 2004 forecast is based on actual data up to and including 2002)?
- e) For each forecast methodology shown in the response to the above, please provide the 2007 forecast of heating degree days using the data up to and including 2005.

The ranking table originally provided in the filed interrogatory response provided at Exhibit C23.12 is re-produced and presented below. The revised table follows exactly the Enbridge scoring analysis. The total score in the tables equals the sum of the rankings for each method and not a weighted percentage score result.

The rankings are based on estimates spanning the 1985 to 2006 period. The score in this table compares performance rankings of the nine different weather normal methods. The lowest score indicates the best model. The lowest score occurs with the 20 year declining trend method. This result occurs in both the Southern and the Northern and Eastern operating areas. A similar conclusion was reached in the interrogatory response provided at Exhibit C23.12.

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WEATHER NORMAL METHOD RANKING TABLE

UNION SOUTH		Weather Normal Estimation Methodology								
Criteria		20 Year	Blended	Blended	Energy	30 Year	30 Year	20 Year	10 Year	Naïve
Weights	Criteria	Trend	55:45	50:50	Probe	Trend	Average	Average	Average	Estimate
	MPE	2	5	4	7	3	9	7	6	1
	RMPSE	2	4	3	8	1	7	6	5	9
	O/U Freq.	1	4	3	2	1	3	5	4	1
	Std. Dev.	7	3	4	6	8	1	2	5	9
	Score	12	16	14	23	13	20	20	20	20

UNION NORTHERN & EASTERN		Weather Normal Estimation Methodology								
Criteria		20 Year	Blended	Blended	Energy	30 Year	30 Year	20 Year	10 Year	Naïve
Weights	Criteria	Trend	55:45	50:50	Probe	Trend	Average	Average	Average	Estimate
	MPE	2	6	4	8	3	9	7	5	1
	RMPSE	1	5	3	8	2	7	6	4	9
	O/U Freq.	1	2	1	5	2	6	4	3	1
	Std. Dev.	7	3	4	5	8	1	2	6	9
	Score	11	16	12	26	15	23	19	18	20

Notes:

- MPE Mean percent error - this is a simple accuracy test: plus & minus will net out.
 RMPSE Root mean percent square error - this a robust accuracy test: plus & minus do not net out.
 O/U Freq. Over to under frequency ratio - this is a simple symmetry test.
 Std. Dev. Standard deviation - this is a stability test.

Part a)

The following two tables present the analysis of the performance of each weather normalization method over the 1990 to 2005 period.

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Union Gas
Annual Heating Degree Days

UNION: Eastern & Northern

Weather Normal Estimation Methodology										
Year	Actual	20 Year Trend	Blended 55:45	Blended 50:50	Energy Probe	30 Year Trend	30 Year Average	20 Year Average	10 Year Average	Naïve Estimate
1990	4,994	5,194	5,258	5,252	5,146	5,276	5,311	5,305	5,256	5,317
1991	5,019	5,244	5,290	5,285	5,350	5,313	5,327	5,332	5,276	5,654
1992	5,489	5,182	5,258	5,251	5,182	5,256	5,320	5,311	5,219	4,994
1993	5,460	5,115	5,226	5,216	5,095	5,196	5,317	5,298	5,212	5,019
1994	5,294	5,214	5,275	5,270	5,260	5,216	5,325	5,285	5,218	5,489
1995	5,358	5,206	5,274	5,268	5,306	5,234	5,330	5,311	5,244	5,460
1996	5,550	5,220	5,280	5,275	5,270	5,228	5,329	5,304	5,256	5,294
1997	5,384	5,210	5,273	5,267	5,299	5,244	5,325	5,315	5,248	5,358
1998	4,457	5,303	5,317	5,316	5,339	5,285	5,329	5,310	5,286	5,550
1999	4,754	5,303	5,315	5,314	5,332	5,305	5,325	5,320	5,352	5,384
2000	5,158	5,160	5,233	5,226	5,163	5,194	5,292	5,261	5,266	4,457
2001	4,592	5,077	5,189	5,179	5,168	5,105	5,280	5,226	5,176	4,754
2002	4,997	5,107	5,197	5,189	5,234	5,099	5,271	5,206	5,192	5,158
2003	5,111	4,960	5,119	5,104	5,206	5,004	5,249	5,181	5,150	4,592
2004	5,148	4,953	5,102	5,089	5,404	5,008	5,224	5,159	5,100	4,997
2005	4,829	4,948	5,103	5,089	5,269	4,970	5,229	5,155	5,065	5,111
Avg. Error		50	132	125	152	84	199	168	120	62
MPE		1.38%	2.99%	2.84%	3.40%	2.03%	4.30%	3.68%	2.76%	1.64%
RMPSE		7.08%	7.31%	7.27%	7.86%	7.00%	7.82%	7.44%	7.29%	9.74%
O/U Freq.		50.0%	56.3%	50.0%	62.5%	50.0%	68.8%	62.5%	56.3%	56.3%
Std. Dev.		115	71	75	86	112	37	61	72	345

Notes:

- MPE Mean percent error - this is a simple accuracy test: plus & minus will net out.
RMPSE Root mean percent square error - this is a robust accuracy test: plus & minus do not net out.
O/U Freq. Over to under frequency ratio - this is a simple symmetry test.
Std. Dev. Standard deviation - this is a stability test.

Part b)

The table below shows the performance ranking of the weather methods analyzed and tabled in part a) of this question above. The analysis period is 1990 to 2005. The table shows that the lowest score of 8 in the Southern operating area is obtained with the 20 year trend method. In the Northern and Eastern operating area both the 20 year trend and the 30 year trend tie for the best with a low score of 12. This tie is broken when the analysis examines the results calculated using a longer period of time. The table presented in the clarification section shown at the beginning of this response shows that over the 1985 to 2006 period the 20 year trend method is superior to the 30 year trend method (a score of 11 versus 15). Conclusion: the 20 year trend outperforms the other methods.

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WEATHER NORMAL METHOD RANKING TABLE

UNION: SOUTH		Weather Normal Estimation Methodology								
Criteria Weights	Criteria	20 Year Trend	Blended 55:45	Blended 50:50	Energy Probe	30 Year Trend	30 Year Average	20 Year Average	10 Year Average	Naïve Estimate
	MPE	1	6	4	7	3	9	8	5	2
	RMPSE	1	3	2	8	5	7	6	4	9
	O/U Freq.	1	3	2	3	1	3	4	3	2
	Std. Dev.	5	2	3	7	6	1	4	3	8
	Score	8	14	11	25	15	20	22	15	21

UNION: Eastern & Northern		Weather Normal Estimation Methodology								
Criteria Weights	Criteria	20 Year Trend	Blended 55:45	Blended 50:50	Energy Probe	30 Year Trend	30 Year Average	20 Year Average	10 Year Average	Naïve Estimate
	MPE	1	6	5	7	3	9	8	4	2
	RMPSE	2	5	3	8	1	7	6	4	9
	O/U Freq.	1	2	1	3	1	4	3	2	2
	Std. Dev.	8	3	5	6	7	1	2	4	9
	Score	12	16	14	24	12	21	19	14	22

Notes:

- MPE Mean percent error - this is a simple accuracy test: plus & minus will net out.
RMPSE Root mean percent square error - this a robust accuracy test: plus & minus do not net out.
O/U Freq. Over to under frequency ratio - this is a simple symmetry test.
Std. Dev. Standard deviation - this is a stability test.

Part c)

Union did not have actual 2006 degree-day data when it filed its 2007 rates application as the year was not completed.

Part d)

A two year regulatory lag is recognized in the analysis. The example provided in the question is correct; the 2004 test year weather normal estimate is based on actual weather data up to and including the year 2002.

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Part e)

The table below shows the weather normal estimates for the year 2007 obtained by the nine different weather normal methods.

UNION GAS YEAR 2007 WEATHER NORMAL ESTIMATES annual heating degree-days		
<u>Weather Normal Method</u>	<u>Operating Area</u>	
	<u>Southern</u>	<u>Northern & Eastern</u>
20 Year Trend	3,714	4,917
55:45 Blend	3,825	5,078
50:50 Blend	3,815	5,063
Energy Probe	3,828	5,094
30 Year Trend	3,655	4,915
30 Year Average	3,917	5,209
20 Year Average	3,830	5,123
10 Year Average	3,752	4,998
Naïve Method	3,778	4,423

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UNION GAS LIMITEDUndertaking of Union Gas
To BOMA/LPMA/WGSPG

C1.8

Please provide the information requested in part b, ignoring the normalized volumes and base the response on actual volumes and customers.

The calculation requested is provided in the table below. As stated in the response provided at Exhibit C1.8, Union does not calculate normalized average consumption for any rate classes other than general service rate classes (i.e. M2, Rate 01, Rate 10).

Contract and Wholesale Service Group

Year	Annual Volume (10 ⁶ m ³)	If no DSM - Annual Volume (10 ⁶ m ³)	Number of Customers	Average Use per Customer (10 ⁶ m ³)	If no DSM Average use per Customer (10 ⁶ m ³)
2000	9,694	9,721	629	15.412	15.455
2001	9,022	9,070	631	14.298	14.374
2002	9,711	9,781	613	15.842	15.956
2003	9,307	9,394	616	15.109	15.249
2004	9,205	9,317	604	15.240	15.425
2005	8,906	9,056	591	15.069	15.324
2006	8,371	8,568	536	15.618	15.985

As previously noted in the response provided at Exhibit C32.13 b) Supplemental, averages can be calculated by dividing the total throughput by the total number of customers, however, the resulting "average use per customer" values should be used with caution. The number of contract customers is relatively small and the types of customers within the contract market are diverse.

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UNION GAS LIMITED

Undertaking of Union Gas to
The Building Owners and Managers Association of the Greater Toronto Area ("BOMA")
The London Property Management Association ("LPMA")
The Wholesale Gas Service Purchasers Group ("WGSPG")

C13.10

Part c of the question asked Union to identify which long-term debt instruments would expire during the 2008 through 2012 time period. The response identifies three debt instruments (lines 11, 12 & 14 from the response at part b).

- a) The response in part b seems to indicate a number of other long term debt instruments that would expire during this period (i.e. line 1, 2, 3, 4, 13). Why were these debt instruments not included in the response to parts c & d?
- b) Please redo the response in part d to reflect a renewal rate of 5%.
- c) Please explain why any changes in interest costs should not be considered a Y or Z factor.

-
- a) Lines 1, 2 and 4 are sinking fund debt instruments. At their maturity date the value is zero. Therefore, there is no amount to renew. Lines 3 and 13 were excluded from the response since the maturity dates fell beyond the 2010 forecast Union provided. These instruments will be included in the response to part b.

b)

Line No.	Offering Date	Effective Cost Rate	Maturity Date	06/30/07 (\$000's)	Increase (Decrease) @ 5% Renewal				
					12/31/08 (\$000's)	12/31/09 (\$000's)	12/31/10 (\$000's)	12/31/11 (\$000's)	12/31/12 (\$000's)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
3	07/11/89	10.760	07/11/11	125,000				(3,413)	(7,200)
11	07/14/98	5.860	07/14/08	100,000	(399)	(860)	(860)	(860)	(860)
12	06/01/00	7.330	06/01/10	185,000			(2,515)	(4,311)	(4,311)
13	05/04/01	6.740	05/04/11	250,000				(2,872)	(4,350)
14	12/17/02	5.310	12/17/07	200,000	(620)	(620)	(620)	(620)	(620)
					<u>(1,019)</u>	<u>(1,480)</u>	<u>(3,995)</u>	<u>(12,075)</u>	<u>(17,341)</u>

- c) Interest rate changes do not meet the definition of Y or Z factors. Y factors relate to items that are outside of the incentive regulation framework. Z factors capture the change in costs associated with changes in legislation, regulatory requirements and GAAP. Further, Z factors relate to changes in costs that will not be reflected in the inflation factor.

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C3/C16/C33.28

- a) If the changes in the CCA rates are implemented, is the total impact on 2007 the \$1 million shown in the table (i.e. for assets acquired after March 19, 2007), or is the \$ 1 million an estimate of the annualized impact?
- b) Is this the estimated amount that will be reflected in the deferral account that was agreed to in the EB-2005-0520 Settlement Agreement?
- a) The response in part a) indicates that these CCA rates have not yet been implemented. Please confirm that the legislation to implement these new rates has been passed.

-
- a) It is an estimate of the total impact on 2007 (i.e. for assets acquired after March 19, 2007).
 - b) If the CCA rate changes are implemented and the capital that has been assumed in the calculation is available for use, then this amount would go into the deferral account for 2007.
 - c) The legislation to implement the CCA changes has still not been passed.

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Ex. D/T1, page 3

- a) How has Union determined the split of the 2007 DSM costs between the new M1 and M2 rate classes?
 - b) Please confirm that Union will be able to true-up differences between the DSM costs included in rates and the actual amount spent on DSM programs in 2008 for the new M1 and M2 rate classes.
-

- a) Forecast 2007 DSM costs associated with delivering DSM programs to M2 residential customers was directly assigned to the new M1 rate class. The remaining 2007 DSM costs associated with delivering DSM programs to M2 commercial/industrial customers was split between the new M1 and the new M2 rate classes based on estimated 2005 volume savings.
- b) Confirmed.

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Ex. D/T3/Sch 3

- a) Please provide a breakdown of the figures in column (h), Storage Premium Adjustment, showing the allocation to each rate class of the three components of this adjustment shown in lines 7 through 9 of Exhibit D, Tab 3, Schedule 2.
- b) Please provide an explanation and description for each allocation methodology used to allocate these three components of the storage premium adjustment.

a) Please see attached.

- b) Union is not proposing separate allocators for each adjustment shown in lines 7 through 9 of Exhibit D, Tab 3 Schedule 2. Union is proposing to use a storage adjustment factor applicable to each rate class to adjust for the removal of the long term storage premium and changes to the sharing of forecast S&T margin.

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UNION GAS LIMITED
Storage Premium Adjustment
Effective January 1, 2008

Line No.	Particulars	Approved Adjustments		Proposed Changes to Sharing of Transmission Margin	Total Storage Premium Adjustment (\$000's)	Storage Premium Adjustment (%)
		Sharing of 2008 Long Term Storage Premium	Sharing of Short Term Storage and Balancing Services			
		(a)	(b)	(c)	(d)	(e)
	<u>Delivery North</u>					
1	R01	705	657	(537)	825	0.64%
2	R10	109	101	(83)	127	0.64%
3	R20	35	32	(26)	41	0.64%
4	R25	13	12	(10)	15	0.64%
5	R77	0	0	(0)	0	0.64%
6	R100	77	71	(58)	90	0.64%
7	Total North Delivery	<u>939</u>	<u>875</u>	<u>(715)</u>	<u>1,098</u>	
	<u>In-franchise South Delivery & Storage</u>					
8	M1	1,750	1,630	(1,333)	2,047	0.64%
9	M2	202	188	(154)	236	0.64%
10	M4	47	44	(36)	55	0.64%
11	M5	32	30	(24)	37	0.64%
12	M7	21	19	(16)	24	0.64%
13	M9	2	2	(1)	2	0.64%
14	M10	0	0	(0)	0	0.64%
15	T1	197	184	(150)	231	0.64%
16	T3	17	16	(13)	20	0.64%
17	Total South Delivery	<u>2,267</u>	<u>2,112</u>	<u>(1,727)</u>	<u>2,652</u>	
18	Total In-franchise Delivery	<u>3,205</u>	<u>2,987</u>	<u>(2,442)</u>	<u>3,750</u>	
	<u>Northern Transportation and Storage</u>					
19	R01	4	4	(3)	5	0.64%
20	R10	0	0	(0)	0	0.65%
21	R20	1	1	(0)	1	0.64%
22	R25	0	0	(0)	0	0.00%
23	R100	0	0	(0)	0	0.00%
24	Total North Transport and Storage	<u>5</u>	<u>5</u>	<u>(4)</u>	<u>6</u>	
25	Total In-franchise	<u>3,211</u>	<u>2,992</u>	<u>(2,446)</u>	<u>3,756</u>	
	<u>Ex-franchise - Cost Based</u>					
26	M12					
27	M13					
28	M16					
29	C1					
30	Total Ex-franchise	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
31	Total Union Gas	<u>3,211</u>	<u>2,992</u>	<u>(2,446)</u>	<u>3,756</u>	

UNION GAS LIMITED

Undertaking of Union Gas
To BOMA/LPMA/WGSPG

C32.13 (b) Supplemental

The response refers to data filed in EB-2005-0520 in Exhibit C1, Summary Schedules 1 and 2. This data includes actual information to 2005. Please provide the actual and normalized volumes and customer numbers by rate class for 2006 as well as the approved figures for 2007.

Please see the attached table for 2006 information. The approved figures for 2007 appear in Exhibit C1, Summary Schedules 1 and 2, provided as attachments to Exhibit C32.13 b) Supplemental.

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Line No.	Particulars	2006		
		Actual Volumes (10 ⁶ m ³)	Weather Normalized Volumes (10 ⁶ m ³)	Number of Customers
		(a)	(b)	(c)
	General Service (1)			
1	Rate M2	3,672	4,069	972,180
2	Rate 01	804	902	292,070
3	Rate 10	364	400	3,137
4	Rate 16	0	0	0
5	Total General Service	4,840	5,371	1,267,387
	Contract and Wholesale (2)			
6	Rate M9 / T3	286	286	3
7	Rate M10	0	0	2
8	Rate 77	0	0	1
9	Rate M4	536	536	158
10	Rate M6	0	0	0
11	Rate M7	765	765	9
12	Rate 20 Firm	491	491	58
13	Rate 100 Firm	2,085	2,085	21
14	Rate T-1 Firm	3,449	3,449	52
15	Rate M5	523	523	129
16	Rate 25 interruptible	236	236	103
17	Rate 30	0	0	0
18	Total Contract and Wholesale	8,371	8,371	536
19	Total	13,211	13,742	1,267,923

Note:

- (1) The impact of weather normalization for rates M2, Rate 01 and Rate 10 is calculated based on the weather normalization method in place for 2006.
- (2) Union's Contract and Wholesale rate classes are not weather normalized.

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UNION GAS LIMITED

Undertaking of Union Gas
To Kitchener

Exhibit C15.4 (g)

In line 7 of the schedule shown on page 2 of the response, on what basis are the normal heating degree days derived, i.e. 30 year average, blend or declining trend?

UNION GAS WEATHER NORMALS

Total Company

<u>Year</u>	<u>HDD</u>	<u>Method</u>
2001	4,288	30 year average
2002	4,284	30 year average
2003	4,268	30 year average
2004	4,170	70:30 blend
2005	4,180	70:30 blend
2006	4,177	70:30 blend
2007	4,139	55:45 blend

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UNION GAS LIMITED

Undertaking of Union Gas
To Association of Major Power Producers of Ontario ("APPrO")

Confirm next phase of expansion for the purpose of M12 to be in the form of the addition of compression; confirm unit cost for capacity resulting from addition of compression is lower than addition of capacity from previous expansions that have taken place under M12; when you would expect the next expansion to occur in the form of the addition of compression.

The next phase of Union's expansion plans for the Dawn-Trafalgar transmission system consists of additional compression at the Bright compressor station commencing in 2008. This project will be followed by additional compression at Lobo and Dawn compressor stations and construction of the single pipeline section remaining to complete the NPS 48 fourth transmission line looping program from Dawn to Parkway. The estimated incremental cost per unit of capacity from potential future compression additions is expected to be greater than the cost per unit of capacity for the next pipeline section to be constructed and the existing M12 toll. As a result, the overall impact of potential future Dawn-Trafalgar expansion projects over the incentive regulation planning horizon which would otherwise put upward cost pressure on M12 transportation rates will be something Union has to manage under incentive regulation.

The attached schedule provides the capital cost per unit of capacity based on the 2007 approved cost of service study, the approved facilities for 2006, 2007 and 2008, and the potential facilities beyond 2008 that would complete the 4th loop of the Dawn-Trafalgar system.

The unit cost of capacity associated with the facilities beyond 2008 is based on high level estimates, that will be refined as we get closer to actual construction.

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TRANSMISSION FACILITIES EXPANSION PROGRAM
Long-Term Expansion Plan for the Dawn-Trafalgar System
Additional Capital Investments
To Complete the 4th Loop and Compression at Lobo and Bright

	Design Day Capacity Added (MMcfd)	Facility Capital Costs (\$'000's)	Capital Cost per Unit Capacity Added (\$/Mcf/d)
<u>Existing Dawn-Trafalgar Facilities</u>			
Net Plant Per the 2007 Approved Cost of Service Study	5,678.7	772,646	136.1
<u>Current Projects Completed or Proceeding 2006-07</u>			
Facilities Completed in 2006:			
Brooke-Strathroy & Hamilton-Milton Pipeline Sections	371.6	108,556	292.1
Parkway Compressor Upgrade	-	848	-
Dawn Compressor	-	47,934	-
Total	371.6	157,338	423.4
Facilities Pending Completion in 2007:			
Strathroy-Lobo Pipeline Section	248.3	55,905	225.2
Parkway "B" Compressor	239.8	72,095	300.6
Total	488.1	128,000	262.2
Total Projects Completed or Proceeding in 2006-07	859.7	285,338	331.9
<u>Future Expansion Plans</u>			
Scheduled for Completion in 2008			
Bright "C" Compressor Upgrade	322.2	57,400	178.2
Total Facilities 2008	322.2	57,400	178.2
Future Facilities Planned in 2009 and Beyond:			
Lobo "C" Compressor	218.9	94,542	431.9
Brantford-Kirkwall Pipeline Section	259.1	68,970	266.2
Dawn Compressor	-	54,000	-
Sub-Total Brantford-Kirkwall & Dawn Compressor	259.1	122,970	474.6
Lobo "D" Compressor	136.3	81,370	597.0
Total Future Facilities 2009+	614.3	298,882	486.5
Total Future Expansion Plans	936.5	356,282	380.4
<u>Total Long Term Dawn-Trafalgar System Facilities</u>	<u>1,796.2</u>	<u>641,620</u>	<u>357.2</u>
<u>Breakdown Between Compression & Pipeline Projects</u>			
Current Projects Completed or Proceeding 2006-07:			
Compression	239.8	120,877	504.1
Pipeline	619.9	164,461	265.3
Total Completed to 2007	859.7	285,338	331.9
Future Expansion Plans			
Compression	677.4	287,312	424.1
Pipeline	259.1	68,970	266.2
Total Future Expansion Plans	936.5	356,282	380.4

UNION GAS LIMITED

Undertaking of Union Gas
To Energy Probe

Ref: Decision With Reasons, EB-2005-0001 Enbridge Rates Case

Issue Number: 14.1

Issue: Are there adjustments that should be made to base year revenue requirements and/or rates?

In the EB-2005-0001 Enbridge Rates Case, the Decision With Reasons at Section 5.5.10, stated as follows:

No evidence has been provided that demonstrates whether the hedging activity had a material effect on the volatility experienced by customers, given the effects of QRAM, the PGVA, and equal billing programs over the same period. (emphasis added)

In the EB-2006-0034 Enbridge 2007 Rates Case, the Applicant was requested to complete two charts to allow the Board Panel to more fully assess the impact that their Equal Billing Plan had on price volatility. In this proceeding, we are requesting that Union provide the same information, allowing the Board to explore the price volatility experienced by customers. The Tables compare the payment experience of residential customers on system gas but not on the Equal Billing Plan with residential customers on system gas and participating in the Equal Billing Plan. If the Tables do not fit the exact data captured by Union, please complete them on a best efforts basis.

In this proceeding, in Energy Probe Interrogatory C10.6, Union was asked to complete Table A to demonstrate the Equal Billing Plan impact on price volatility of the hedged portfolio of Union Gas, and to complete Table B to demonstrate the Equal Billing Plan impact on price volatility of the unhedged portfolio of Union Gas.

The figures provided by Union for C10.6 Table A and Table B in the columns with headings "Equal billing price per 273 M3 with RM", "Quarterly price change per 273 M3", "Equal billing price per 273 M3 without RM", and "Quarterly price change per 273 M3" respectively do not appear to provide the information requested. The figures provided in those columns would indicate that a customer served under the equal billing plan received prices that changed quarterly.

Using historical data for a customer using an annual average amount of 273 M3 per month and enrolling in September, please indicate what this customer would have seen on their bill as the rate charged under equal billing. Please redo the charts with the equal billing prices either seen by customers, or, in the case of Table B, that would have been seen by customers had RM not been used including the quarterly price change.

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The gas supply rate that a customer pays is the same for all system customers, whether or not they participate in the Equal Billing Plan. The EBP simply spreads the estimated annual bill over the course of the year in order to avoid higher monthly payments in the winter season. True-ups occur annually to ensure that EBP customers pay the approved gas supply rate for their actual consumption.

Union applied a normal consumption profile to the annual total of 3,276 m³ (273 m³ / month) as provided at Attachment #1, to create a theoretical representation of the total monthly bill amounts for EBP and non-EBP customers with and without risk management.

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Table A - Equal Billing Plan (EBP) Impact on Price Volatility

2003 - 2007

Based on an Annual Volume of 3,276 m³

With Risk Management

(a)	(b)	(c)	(d)	(e)	(f)	(g)
EBP Cycle	Date	% Use/Mos	Rate Change Activity	Actual Customer Cost per Month	EBP Customer Amount Due Per Month	Change in EBP Customer Amount Due Per Month
EBP Year 1						
	Jan-01-2003	17.1%	Rate Change	\$113.93	EBP Start	\$73.00
	Feb-01-2003	17.3%		\$115.27	EBP Update	\$74.00
	Mar-01-2003	17.3%	Rate Change	\$131.70		\$1.00
	Apr-01-2003	10.0%		\$76.13		\$0.00
	May-01-2003	6.8%	Rate Change	\$59.45	EBP Update	\$74.00
	Jun-01-2003	3.6%		\$31.47		\$19.00
	Jul-01-2003	2.8%	Rate Change	\$25.28	EBP End	\$93.00
	Aug-01-2003	2.3%		\$20.77	EBP True-up	\$93.00
	Total			\$574.01		(\$92.99)
	Volatility				\$574.01	
EBP Year 2						
	Sep-01-2003	2.7%		\$24.38	EBP Start	\$82.00
	Oct-01-2003	2.9%	Rate Change	\$24.24		\$82.00
	Nov-01-2003	7.5%		\$62.69		\$0.00
	Dec-01-2003	9.7%		\$81.08		\$0.00
	Jan-01-2004	17.1%	Rate Change	\$125.32		\$82.00
	Feb-01-2004	17.3%		\$126.79	EBP Update	\$58.00
	Mar-01-2004	17.3%		\$126.79		(\$24.00)
	Apr-01-2004	10.0%	Rate Change	\$86.80		\$58.00
	May-01-2004	6.8%		\$59.03	EBP Update	\$58.00
	Jun-01-2004	3.6%		\$31.25		\$70.00
	Jul-01-2004	2.8%	Rate Change	\$27.46	EBP End	\$70.00
	Aug-01-2004	2.3%		\$22.56	EBP True-up	\$70.00
	Total			\$798.39		(\$65.61)
	Volatility				\$798.39	
EBP Year 3						
	Sep-01-2004	2.7%		\$26.48	EBP Start	\$89.00
	Oct-01-2004	2.9%	Rate Change	\$28.08		\$89.00
	Nov-01-2004	7.5%		\$72.62		\$0.00
	Dec-01-2004	9.7%		\$93.92		\$0.00
	Jan-01-2005	17.1%	Rate Change	\$169.51		\$89.00
	Feb-01-2005	17.3%		\$171.50	EBP Update	\$90.00
	Mar-01-2005	17.3%		\$171.50		\$1.00
	Apr-01-2005	10.0%	Rate Change	\$83.94		\$90.00
	May-01-2005	6.8%		\$57.08	EBP Update	\$90.00
	Jun-01-2005	3.6%		\$30.22		(\$12.00)
	Jul-01-2005	2.8%	Rate Change	\$26.64	EBP End	\$78.00
	Aug-01-2005	2.3%		\$21.88	EBP True-up	\$78.00
	Total			\$953.37		(\$73.63)
	Volatility				\$953.37	
EBP Year 4						
	Sep-01-2005	2.7%		\$25.69	EBP Start	\$87.00
	Oct-01-2005	2.9%	Rate Change	\$30.35		\$87.00
	Nov-01-2005	7.5%		\$78.48		\$0.00
	Dec-01-2005	9.7%		\$101.50		\$0.00
	Jan-01-2006	17.1%	Rate Change	\$233.45		\$87.00
	Feb-01-2006	17.3%		\$236.18	EBP Update	\$142.00
	Mar-01-2006	17.3%		\$236.18		\$55.00
	Apr-01-2006	10.0%	Rate Change	\$114.69		\$142.00
	May-01-2006	6.8%		\$77.99	EBP Update	\$124.00
	Jun-01-2006	3.6%		\$41.29		(\$18.00)
	Jul-01-2006	2.8%	Rate Change	\$29.76	EBP End	\$124.00
	Aug-01-2006	2.3%		\$24.44	EBP True-up	\$124.00
	Total			\$1,229.99		(\$0.01)
	Volatility				\$1,229.99	(\$127.01)
EBP Year 5						
	Sep-01-2006	2.7%		\$28.69	EBP Start	\$97.00
	Oct-01-2006	2.9%	Rate Change	\$29.94		\$97.00
	Nov-01-2006	7.5%		\$77.44		\$0.00
	Dec-01-2006	9.7%		\$100.16		\$0.00
	Jan-01-2007	17.1%	Rate Change	\$139.10		\$97.00
	Feb-01-2007	17.3%		\$140.73	EBP Update	\$63.00
	Mar-01-2007	17.3%		\$140.73		(\$34.00)
	Apr-01-2007	10.0%	Rate Change	\$84.79		\$63.00
	May-01-2007	6.8%		\$57.66	EBP Update	\$66.00
	Jun-01-2007	3.6%		\$30.52		\$3.00
	Jul-01-2007	2.8%	Rate Change	\$25.23	EBP End	\$66.00
	Aug-01-2007	2.3%		\$20.72	EBP True-up	\$66.00
	Total			\$875.72		(\$62.28)
	Volatility				\$875.72	

Rate includes commodity reference price plus price adjustments (rate riders) without risk management impact

EBP Customer Actual Cost Per Month is the amount displayed on the customer bill as the cost of gas for the

EBP Customer Amount Due per Month is the amount payable by the customer each month.

EBP runs September to July, with reviews in February and May, and a final true-up in August.

EBP Start is September of each year (except for January 2003, the EBP Start is January 2003)

EBP Update is a review of the EBP amount with adjustments to minimize the true-up amount in August

EBP True-up is the variance between Actual Cost and Amount Due which is settled in August.

Table B - Equal Billing Plan (EBP) Impact on Price Volatility

2003 - 2007

Based on an Annual Volume of 3,276 m³
Without Risk Management

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
				Acutal Customer Cost per Month		EBP Customer Amount Due Per Month	Change in EBP Customer Amount Due Per Month
EBP Cycle	Date	% Use / Month	Rate Change Activity		EBP Activity		
EBP Year 1	Jan-01-2003	17.1%	Rate Change	\$113.68	EBP Start	\$73.00	
	Feb-01-2003	17.3%		\$115.01	EBP Adjust	\$73.00	\$0.00
	Mar-01-2003	17.3%	Rate Change	\$131.33		\$73.00	\$0.00
	Apr-01-2003	10.0%		\$75.91		\$73.00	\$0.00
	May-01-2003	6.8%	Rate Change	\$63.13	EBP Adjust	\$96.00	\$23.00
	Jun-01-2003	3.6%		\$33.42		\$96.00	\$0.00
	Jul-01-2003	2.8%	Rate Change	\$26.73	EBP End	\$96.00	\$0.00
	Aug-01-2003	2.3%		\$21.96	EBP True-up	\$1.16	(\$94.84)
	Total			\$581.16		\$581.16	
	Volatility					\$31.04	
EBP Year 2	Sep-01-2003	2.7%		\$25.77	EBP Start	\$87.00	
	Oct-01-2003	2.9%	Rate Change	\$25.57		\$87.00	\$0.00
	Nov-01-2003	7.5%		\$66.14		\$87.00	\$0.00
	Dec-01-2003	9.7%		\$85.54		\$87.00	\$0.00
	Jan-01-2004	17.1%	Rate Change	\$127.30		\$87.00	\$0.00
	Feb-01-2004	17.3%		\$128.78	EBP Adjust	\$57.00	(\$30.00)
	Mar-01-2004	17.3%		\$128.78		\$57.00	\$0.00
	Apr-01-2004	10.0%	Rate Change	\$90.01		\$57.00	\$0.00
	May-01-2004	6.8%		\$61.21	EBP Adjust	\$70.00	\$13.00
	Jun-01-2004	3.6%		\$32.40		\$70.00	\$0.00
	Jul-01-2004	2.8%	Rate Change	\$26.93	EBP End	\$70.00	\$0.00
	Aug-01-2004	2.3%		\$22.12	EBP True-up	\$4.57	(\$65.43)
	Total			\$820.57		\$820.57	
	Volatility					\$23.74	
EBP Year 3	Sep-01-2004	2.7%		\$25.97	EBP Start	\$87.00	
	Oct-01-2004	2.9%	Rate Change	\$27.70		\$87.00	\$0.00
	Nov-01-2004	7.5%		\$71.65		\$87.00	\$0.00
	Dec-01-2004	9.7%		\$92.67		\$87.00	\$0.00
	Jan-01-2005	17.1%	Rate Change	\$169.13		\$87.00	\$0.00
	Feb-01-2005	17.3%		\$171.10	EBP Adjust	\$91.00	\$4.00
	Mar-01-2005	17.3%		\$171.10		\$91.00	\$0.00
	Apr-01-2005	10.0%	Rate Change	\$83.67		\$91.00	\$0.00
	May-01-2005	6.8%		\$56.89	EBP Adjust	\$78.00	(\$13.00)
	Jun-01-2005	3.6%		\$30.12		\$78.00	\$0.00
	Jul-01-2005	2.8%	Rate Change	\$26.45	EBP End	\$78.00	\$0.00
	Aug-01-2005	2.3%		\$21.73	EBP True-up	\$6.18	(\$71.82)
	Total			\$948.18		\$948.18	
	Volatility					\$23.47	
EBP Year 4	Sep-01-2005	2.7%		\$25.50	EBP Start	\$86.00	
	Oct-01-2005	2.9%	Rate Change	\$30.29		\$86.00	\$0.00
	Nov-01-2005	7.5%		\$78.33		\$86.00	\$0.00
	Dec-01-2005	9.7%		\$101.31		\$86.00	\$0.00
	Jan-01-2006	17.1%	Rate Change	\$235.42		\$86.00	\$0.00
	Feb-01-2006	17.3%		\$238.18	EBP Adjust	\$145.00	\$59.00
	Mar-01-2006	17.3%		\$238.18		\$145.00	\$0.00
	Apr-01-2006	10.0%	Rate Change	\$116.22		\$145.00	\$0.00
	May-01-2006	6.8%		\$79.03	EBP Adjust	\$126.00	(\$19.00)
	Jun-01-2006	3.6%		\$41.84		\$126.00	\$0.00
	Jul-01-2006	2.8%	Rate Change	\$30.10	EBP End	\$126.00	\$0.00
	Aug-01-2006	2.3%		\$24.72	EBP True-up	(\$3.89)	(\$129.89)
	Total			\$1,239.11		\$1,239.11	
	Volatility					\$42.37	
EBP Year 5	Sep-01-2006	2.7%		\$29.02	EBP Start	\$98.00	
	Oct-01-2006	2.9%	Rate Change	\$30.00		\$98.00	\$0.00
	Nov-01-2006	7.5%		\$77.58		\$98.00	\$0.00
	Dec-01-2006	9.7%		\$100.34		\$98.00	\$0.00
	Jan-01-2007	17.1%	Rate Change	\$134.90		\$98.00	\$0.00
	Feb-01-2007	17.3%		\$136.48	EBP Adjust	\$59.00	(\$39.00)
	Mar-01-2007	17.3%		\$136.48		\$59.00	\$0.00
	Apr-01-2007	10.0%	Rate Change	\$81.72		\$59.00	\$0.00
	May-01-2007	6.8%		\$55.57	EBP Adjust	\$62.00	\$3.00
	Jun-01-2007	3.6%		\$29.42		\$62.00	\$0.00
	Jul-01-2007	2.8%	Rate Change	\$25.23	EBP End	\$62.00	\$0.00
	Aug-01-2007	2.3%		\$20.72	EBP True-up	\$4.45	(\$57.55)
	Total			\$857.45		\$857.45	
	Volatility					\$28.20	

Rate includes commodity reference price plus price adjustments (rate riders) without risk management imp

EBP Customer Actual Cost Per Month is the amount displayed on the customer bill as the cost of gas for th

EBP Customer Amount Due per Month is the amount payable by the customer each month.

EBP runs September to July, with reviews in February and May, and a final true-up in August

EBP Start is September of each year (except for January 2003, the EBP Start is January 2003)

EBP Update is a review of the EBP amount with adjustments to minimize the true-up amount in Aug

EBP True-up is the variance between Actual Cost and Amount Due which is settled in August.

UNION GAS LIMITEDUndertaking of Union Gas
To Energy Probe

Ref: Decision With Reasons, EB-2005-0001 Enbridge Rates Case

Issue Number: 14.1

Issue: Are there adjustments that should be made to base year revenue requirements and/or rates?

In the EB-2005-0001 Enbridge Rates Case, the Decision With Reasons at Section 5.5.10, stated as follows:

The question that remains is the extent to which Enbridge's risk management program is redundant or represents a useful and cost effective tool to reduce consumer price volatility in a fair and reasonable way. (emphasis added)

In this proceeding, to better inform the Board Panel on the cost effectiveness of the Union Risk Management Program, Union was requested to fill in the Table below, similar to a Table supplied in the EB-2006-0034 Enbridge Rates Case.

The figures provided by Union in their answer for C10.8 claim to show that the "Impact of Risk Management on PGVA Prices" is a cost saving of up to 35% in a particular year. Even in years when the risk management program is indicated to have had a net cost, the impact is indicated as a percentage savings to customers. For example, in 2003 Union claims that Risk Management gained \$30.4 million while driving down the PGVA by 35%. On the other hand, in 2006, while suffering a loss of \$22 million, Union was able to drive down the PGVA by 25%.

- (a) Please provide the calculation for the final column of the table provided in response to C10.8.
- (b) Please update the figures provided in the answer for C10 for year-to-date information.

-
- a) The PGVA is a deferral account measured in dollars and not in a per unit price. Consequently, Union interprets the final column on the table to mean the impact of risk management on the PGVA total balance.

The impact of risk management on PGVA as a percentage was calculated by:

- (i) summing the total dollars that actually accumulated in each calendar year requiring deferral account disposition in column (a).
- (ii) comparing that to the total dollars that would have accumulated in the deferral account in each calendar year if no risk management activity took place in column (b).

Question: October 3, 2007

Answer: October 11, 2007

Docket: EB-2007-0606 / EB-2007-0615

b)

Year	Volume of Risk Management Activity (m ³)	Cost of Risk Management - Purchases/Options (Gains/(Losses) \$Millions)	Average AECO Spot Price of Gas over Same Period (C\$/10 ³ m ³) *	Impact of Risk Management on PGVA (% + or -)
2007 YTD (Jan - Aug)	733,492,779	(19.2)	\$240.52	-22%
2006	1,067,832,538	(22.0)	\$232.74	-25%
2005	1,311,605,723	9.9	\$312.27	-11%
2004	1,263,910,970	(1.9)	\$233.61	2%
2003	1,290,408,055	30.4	\$237.94	-35%
2002	641,229,465	(19.9)	\$145.13	-23%

* Average AECO Spot price is AECO 2A Daily Index

(iii) the difference between (a) and (b) was divided into the 5-year annual average of total deferral dollars to identify the impact on the PGVA as a percentage in column (c).

	Deferral Account Activity (\$millions) (a)	Deferral Activity if no Risk Management (b)	Reduction due to Risk Management (c) = b - a	Deferral Account Reduction as % of 5 Year Average (d) = c / avg(a)
2007 YTD	129.9	149.1	19.2	(22%)
2006	260.3	282.3	22.0	(25%)
2005	47.1	57.0	9.9	(11%)
2004	6.4	4.5	(1.9)	2%
2003	101.0	131.4	30.4	(35%)
2002	17.7	37.6	19.9	(23%)
5 Year Average	86.5			

Question: October 3, 2007
 Answer: October 11, 2007
 Docket: EB-2007-0606 / EB-2007-0615

UNION GAS LIMITED

Undertaking of Union Gas
To Industrial Gas Users Association ("IGUA")

Exhibit C13.10

The securities listed on page 2 of 3 indicate that there are seven issues that will mature in the period 2008 to 2012, inclusive, and that an eighth debt issue will mature on December 17, 2007. Please re-do the calculations appearing on page 3 of Exhibit C113.10 to include these eight items.

Line No.	Offering Date	Effective Cost Rate	Maturity Date	06/30/07 (\$000's)	Increase (Decrease) @ 6% Renewal				
					12/31/08 (\$000's)	12/31/09 (\$000's)	12/31/10 (\$000's)	12/31/11 (\$000's)	12/31/12 (\$000's)
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1	11/14/83	13.630	11/14/08	4,000 *					
2	10/07/88	11.690	10/15/10	49,000 *					
3	07/11/89	10.760	07/11/11	125,000				(2,820)	(5,950)
4	07/31/89	10.850	07/31/09	30,000 *					
11	07/14/98	5.860	07/14/08	100,000	65	140	140	140	140
12	06/01/00	7.330	06/01/10	185,000			(1,436)	(2,461)	(2,461)
13	05/04/01	6.740	05/04/11	250,000				(1,222)	(1,850)
14	12/17/02	5.310	12/17/07	200,000	1,380	1,380	1,380	1,380	1,380
					<u>1,445</u>	<u>1,520</u>	<u>84</u>	<u>(4,982)</u>	<u>(8,741)</u>

* Note that lines 1, 2 and 4 are sinking fund debt instruments. At their maturity date the value is zero. Therefore, there is no amount to renew.

UNION GAS LIMITED

Undertaking of Union Gas
To Industrial Gas Users Association ("IGUA")

Please describe the allocation factor(s) that is used to allocate storage-related Rate Base between in-franchise and ex-franchise storage and provide Union's rationale for utilizing such an allocation factor. What would be the reduction in Union's Base Revenue an additional \$90 million of storage Rate Base were to be allocated to ex-franchise services.

For a description of the allocation factors used to allocate storage costs, please refer to EB-2005-0520 Exhibit G3, Tab 1, Schedule 1, pp. 11-13 included as Attachment #1. For further detail on Balancing Gas and Gas in Inventory please refer to RP-2003-0063 Exhibit G1, Tab 1, pp. 8-9, and Exhibit J18.185 included as Attachment #2.

If \$90 million of in-franchise Balancing Gas and Gas in Inventory was allocated to ex-franchise services, the approximate impact on Union's in-franchise revenue requirement would be \$8.370 million (\$90 million x 9.3%).

Question: October 3, 2007
Answer: October 11, 2007
Docket: EB-2007-0606 / EB-2007-0615

1 Storage Dehydrator

2 a) Demand

3 Dehydration demand costs are allocated to rate classes in proportion to the design day
4 demand of the dehydrator. This includes the demand of Enbridge Gas Distribution Inc.
5 through its Tecumseh storage interconnection.

6
7 b) Commodity

8 Dehydration commodity costs are allocated between in-franchise and ex-franchise
9 customers in proportion to the volume forecast to be dehydrated. In-franchise costs are
10 allocated to rate classes on the basis of delivery volume.

11
12 Storage Excluding Dehydrator

13 a) Deliverability

14 Deliverability costs are compression and related costs incurred to provide delivery from
15 storage on design day to meet customers' firm requirements.

16
17 Demand from storage on design day is the excess of customers' design day demand over
18 design day deliveries to Union's system. Ex-franchise (M12 and C1) and T1 customers
19 contract for specific deliverability service levels. The class excess divided by the sum of
20 the excesses is the ratio that is used to allocate these costs.

21
22 Design day deliveries are estimated for each firm sales and bundled-T rate class based

1 upon the ratio of the average day for the class divided by the total average day of firm
2 classes.

3
4 b) Commodity

5 Storage commodity costs are allocated to ex-franchise and in-franchise customers in
6 proportion to the volume injected and withdrawn from storage. In-franchise costs are
7 allocated to rate classes on the basis of delivery volume.

8
9 c) Space

10 These are costs attributable to the storage capacity required for the movement of the
11 deficiency of customers' summer use from average over to the winter season.

12
13 Space costs are allocated to contract carriage (T1), ex-franchise (M12 and C1 Long Term)
14 and the North customers based on the relationship of contracted space to Union's total
15 storage system working capacity.

16
17 For the South, the excess of the winter period use (January - March and November -
18 December) compared to average annual use for the same 151 day period is calculated for
19 each in-franchise sales and Bundled -T rate class (firm and interruptible). This is referred
20 to as the "Aggregate Excess". Costs are allocated to customers in the North using excess
21 peak over annual average demand (i.e., the difference between what a rate class takes on
22 an average day and what it requires on its peak day).

d) System Integrity Space

Union currently maintains approximately 9.7 PJ (9.1 bcf) of system integrity storage space. This system integrity space allows Union to meet its operational needs. The integrity space represents approximately 6% of Union's total storage working capacity.

System integrity storage space costs are allocated to all in-franchise and ex-franchise customers in the South based on how system integrity space is used. Costs are allocated to rate classes in the North using excess peak over annual average demand (i.e., the difference between what a rate class takes on an average day and what it requires on its peak day).

Transmission - Dawn Station

a) Demand

Dawn station compression costs are allocated based on design day demand. Ex-franchise contractual levels and in-franchise transmission lateral demand is used. Union's in-franchise rate classes receive a credit for their firm deliveries at Parkway. In-franchise costs are allocated to rate classes on the basis of firm Dawn-Trafalgar design day demand.

b) Commodity

The allocation of costs between in-franchise and ex-franchise customers is based on fuel usage. In-franchise costs are allocated to rate classes on the basis of delivery volumes

1 **GAS DISTRIBUTION ACCESS RULE**

2

3 Capital and operating expenses associated with the implementation of new provisions of the Gas
4 Distribution Access Rule (GDAR). These costs are being functionalized to Purchase/Production
5 and classified as commodity-related.

6

7 **BALANCING INVENTORY**

8

9 Union holds gas in inventory to balance the demands of both sales service and direct purchase
10 customers in the Northern and Eastern operations area and the Southern operations area. For
11 inventory revaluation purposes, gas in inventory for resale to sales service customers is tracked
12 separately from inventory identified to balance sales service customers.

13

14 Union first separately identified balancing inventory in RP-2002-0029 when it proposed to
15 remove from inventory for sale gas required to balance direct purchase customers. Union
16 proposed to transfer from sales service inventory to balancing inventory \$164.2 million (967,831
17 10³m³ at a cost of \$169.609 per 10³m³). Union made this proposal to prevent an inappropriate
18 amount of inventory revaluation debits or credits being attributed to sales service customers
19 when Union's Alberta Border Reference Price changed. Union's proposal was accepted in the
20 RP-2002-0029 Settlement Agreement (pg. 26) without modification. The Board accepted the
21 Settlement Agreement and included it in Appendix A of its Decision with Reasons, dated
22 September 20, 1999.

June, 2003

1 For 2004, Union is projecting balancing inventory of \$124.117 million (731,783 10³m³ at a cost
2 of \$169.609 per 10³m³) (Exhibit B3, Tab 1, Schedule 1). Union is proposing to allocate
3 balancing inventory in the same manner at as it allocates gas in inventory for sale. Union
4 proposes to allocate balancing inventory to in-franchise bundled rates classes, excluding T-
5 service, based on the excess of winter volumes (November – March) compared to average annual
6 use for the same 151 day period. T-service customers are not allocated the costs associated with
7 balancing inventory because, under the terms and conditions of their service, these customers are
8 required to balance their own demand/supply needs.

9
10 **ALLOCATION OF DISTRIBUTION CAPACITY-RELATED COSTS**

11
12 In E.B.R.O. 499, Union proposed that the design day demands of customers served directly off
13 transmission lines be removed from the allocator of Southern Operations area capacity-related
14 distribution costs. Union made its proposal on the grounds that:

- 15 1. The demands of customers in a rate class served directly off transmission lines have not
16 caused Union to incur any distribution capacity related costs and, therefore this allocation
17 provides a better representation of cost causality; and
- 18 2. Union's proposal was consistent with the allocation of sole use main costs to rate classes
19 in the Northern and Eastern Operations area in that the demands of customers served
20 entirely by sole use mains are excluded from the allocation factor used to allocate the
21 cost of grid and joint use mains.

UNION GAS LIMITED

Answer to Interrogatory
from London Property Management Association

Reference: Exhibit H1, Tab 4, page 6

Question

For balancing gas inventory, the evidence indicates that the associated costs are allocated to all rate classes.

- a) Are the costs allocated to all classes, including the semi-unbundled classes T1 and T3?
 - b) Are the costs allocated to rates M13, M12, C1 and M16?
 - c) How are the costs allocated to the rate classes?
-

Answer

- a) No. Please refer to the Cost Allocation evidence at Exhibit G1, Tab 1, page 9.
- b) No. Please refer to the Cost Allocation evidence at Exhibit G1, Tab 1, page 9.
- c) Union is allocating balancing inventory to bundled in-franchise customers, both in the Southern Operations area and the Northern and Eastern Operations area in the same manner as gas in inventory is allocated. This is consistent with how balancing inventory would have been allocated had Union not proposed to separately identify balancing inventory in RP-2002-0029 for the purpose of inventory revaluation.

Witness: Pat McMahon/Mark Kitchen
Question: July 24, 2003
Answer: August 7, 2003
Docket: RP-2003-0063

UNION GAS LIMITED

Undertaking of Union Gas
To Industrial Gas Users Association ("IGUA")

Check numbers in C13.3 and reconcile them with those in C13.2 and add years 2011 and 2012.

When calculating the impact of a 1% price cap in Exhibit C13.3 part (a), Union did not include customer supplied fuel in the incremental revenue. Please refer to the response provided at Exhibit C13.3 Corrected.

Exhibit C13.2 identifies the regulated delivery revenue requirement (i.e. cost) for 2007. The following adjustments to the delivery-related revenue requirement would be required before applying the price cap.

2007 Delivery-Related Revenue Requirement	\$925,360
Less: Upstream Diversions	988
S&T Margin	27,125
DSM	<u>17,000</u>
Revenue subject to Price Cap	<u>\$880,247</u>

Question: October 3, 2007
Answer: October 11, 2007
Docket: EB-2007-0606 / EB-2007-0615

UNION GAS LIMITED

Undertaking of Union Gas
To TransAlta

Provide the maximum rate impact for T1.

For 2008, the maximum rate impact of Union's proposal on T1 customers is \$0.014/GJ or 2.1%

Individual customer impacts are dependent upon the individual contract parameters (contract demand, levels of combined firm and interruptible service and storage parameters).

Question: October 3, 2007
Answer: October 11, 2007
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UNION GAS LIMITED

Undertaking of Union Gas
To City of Kitchener

Provide calculation by rate class of pricing storage deliverability above 1.2 percent at market prices compared to cost based rates for all of the in-franchise rate classes that are affected by that.

<u>Rate Class</u>	<u>Deliverability Above 1.2% (GJs) (a)</u>	<u>Annual Price Differential Impact (\$) (1) (b)</u>
T1	83,278	299,801
T3	22,489	<u>80,960</u>
Total		380,761

Notes

(1) Calculation: (b) = (a) * (\$0.30/GJ) * 12

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UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

Union to provide answers to I-11.16 and I-17.12.

Please see Attachment #1, #2 and #3.

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UNION GAS LIMITED
Schedule of Depreciation Rates

<u>Line No.</u>	<u>Account #</u>	<u>Account Description</u>	<u>Rate (%)</u>
		Intangible plant:	
1	401	Franchises and consents	5.05%
2	402	Intangible plant - Other	20 Year Amortization
		Local Storage Plant	
3	442	Structures and improvements	3.30%
4	443	Gas holders - storage	2.68%
5	443	Gas holders - equipment	3.68%
		Underground Storage:	
6	451	Land rights	2.23%
7	452	Structures and improvements	2.34%
8	453	Wells and lines	2.66%
9	456	Compressor equipment	3.19%
10	457	Measuring & regulating equipment	4.30%
		Transmission:	
11	461	Land rights	2.00%
12	462	Structures and improvements	2.66%
13	465	Mains	2.37%
14	466	Compressor equipment	3.52%
15	467	Measuring & regulating equipment	3.61%
		Distribution - Southern Operations:	
16	471	Land rights	1.67%
17	472	Structures and improvements	2.91%
18	473	Services - metallic	3.69%
19	473	Services - plastic	3.18%
20	474	Regulators	3.30%
21	474	Regulator and meter installations	3.51%
22	475	Mains - metallic	2.54%
23	475	Mains - plastic	2.34%
24	477	Measuring & regulating equipment	4.64%
25	478	Meters	3.70%

UNION GAS LIMITED
Schedule of Depreciation Rates

Line No.	Account Description	Rate (%)
	Distribution plant - Northern & Eastern Operations:	
1	471 Land rights	1.68%
2	472 Structures & improvements	3.13%
3	473 Services - metallic	3.58%
4	473 Services - plastic	3.19%
5	474 Regulators	3.34%
6	474 Regulator and meter installations	3.50%
7	475 Mains - metallic	2.52%
8	475 Mains - plastic	2.35%
9	476 Compressor equipment	3.34%
10	477 Measuring & regulating equipment	4.63%
11	478 Meters	3.67%
	General:	
12	482 Structures and improvements	2.13%
13	484 Transportation equipment	10.07%
14	485 Heavy work equipment	4.55%
15	488 Communications structures	4.88%
16	483 Office furniture and equipment	15 Year Amortization
17	483 Office equipment - computers	4 Year Amortization
18	486 Tools and other equipment	15 Year Amortization
19	488 Communications equipment	15 Year Amortization

Union Gas Limited 2006 Historical Year

Line No.		Gross Plant (\$Millions)	Accum. Depr. (\$Millions)	Net Book Value (\$Millions)	Depreciation Rate %	Utility Depreciation (\$Millions)
Intangible Plant						
1	Franchises and consents	2.1	(0.9)	1.2	5.05%	(0.1)
2	Other intangible	9.4	(7.8)	1.6	amortize 20 yrs	(0.1)
3	Total Intangible Plant	11.5	(8.7)	2.8		
Local Storage Plant						
4	Land	0.0	0.0	0.0	0.00%	0.0
5	Structures and improvements	2.4	(2.1)	0.3	3.30%	(0.1)
6	Gas Holders - Storage	4.5	(4.2)	0.3	2.68%	(0.1)
7	- Equipment	7.6	(6.0)	1.6	3.68%	(0.2)
8	Total Local Storage Plant	14.5	(12.3)	2.2		
Underground Storage Plant						
9	Land	4.6	0.0	4.6	0.00%	0.0
10	Land Rights	51.3	(11.9)	39.4	2.23%	(1.1)
11	Structures & improvements	62.2	(22.7)	39.5	2.34%	(1.4)
12	Storage wells	69.3	(24.8)	44.5	2.66%	(1.8)
13	Field Lines	67.7	(19.3)	48.4	2.66%	(1.8)
14	Compressor equipment	275.2	(121.4)	153.8	3.19%	(8.1)
15	Measuring & regulating equipment	60.6	(34.1)	26.5	4.30%	(2.6)
16	Base pressure gas	48.5	0.0	48.5	0.00%	0.0
17	Total Underground Storage Plant	639.4	(234.2)	405.2		
Transmission Plant						
18	Land	22.8	0.0	22.8	0.00%	0.0
19	Land Rights	31.9	(6.2)	25.7	2.00%	(0.6)
20	Structures & improvements:	44.3	(20.9)	23.4	2.66%	(1.2)
21	Mains - metallic	902.2	(308.4)	593.8	2.37%	(20.0)
22	Compressor equipment	140.6	(62.9)	77.7	3.52%	(4.8)
23	Measuring & regulating equipment	124.0	(46.9)	77.1	3.61%	(4.4)
24	Total Transmission Plant	1,265.8	(445.3)	820.5		
Distribution-Southern Operations						
25	Land	4.3	0.0	4.3	0.00%	0.0
26	Land Rights	4.5	(0.8)	3.7	1.67%	(0.1)
27	Structures & improvements	62.2	(42.4)	19.8	2.91%	(1.8)
28	Leasehold improvements	0.5	(0.2)	0.3	amortize 5-15 yrs	0.0
29	Services - metallic	111.0	(93.8)	17.2	3.69%	(4.1)
30	- plastic	657.2	(210.0)	447.2	3.18%	(20.4)
31	Regulators	61.2	(22.4)	38.8	3.30%	(2.0)
32	Regulator and meter installations	49.5	(19.1)	30.4	3.51%	(1.7)
33	Mains - metallic	366.5	(185.4)	181.1	2.54%	(9.2)
34	- plastic	436.1	(115.2)	320.9	2.34%	(10.0)
35	Measuring & regulating equipment	23.1	(11.4)	11.7	4.64%	(1.1)
36	Meters	164.4	(56.3)	108.1	3.70%	(6.0)
37	Total Distribution Plant Southern Operations	1,940.5	(757.0)	1,183.5		
Distribution-Northern & Eastern Operations						
38	Land	3.2	0.0	3.2	0.00%	0.0
39	Land Rights	8.5	(2.5)	6.0	1.68%	(0.1)
40	Structures & improvements	42.7	(16.6)	26.1	3.13%	(1.3)
41	Leasehold improvements	0.7	(0.4)	0.3	amortize 5-15 yrs	(0.1)
42	Services - metallic	88.6	(52.3)	36.3	3.58%	(3.2)
43	- plastic	314.5	(112.8)	201.7	3.19%	(9.9)
44	Regulators	22.4	(8.1)	14.3	3.34%	(0.7)
45	Regulator and meter installations	24.6	(6.4)	18.2	3.50%	(0.8)
46	Mains - metallic	315.6	(115.6)	200.0	2.52%	(7.8)
47	- plastic	178.8	(54.1)	124.7	2.35%	(4.1)
48	Compressor equipment	1.3	(1.1)	0.2	3.34%	0.0
49	Measuring & regulating equipment	83.6	(35.5)	48.1	4.63%	(3.6)
50	Meters	48.4	(16.7)	31.7	3.67%	(1.8)
51	Total Distribution Plant-Northern & Eastern Operations	1,132.9	(422.1)	710.8		
General Plant						
52	Land	0.6	0.0	0.6	0.00%	0.0
53	Structures and improvements	37.7	(16.4)	21.3	2.13%	(0.8)
54	Leasehold improvements	0.9	(0.3)	0.6	amortize 10 yrs	(0.1)
55	Office Equipment - furn. & equip	18.1	(11.7)	6.4	amortize 15 yrs	(1.3)
56	- computer - hardware/software	63.8	(27.6)	36.2	amortize 4 yrs	(15.5)
57	Transportation Equipment	47.4	(14.9)	32.5	10.07%	(4.5)
58	Heavy work equipment	15.5	(4.3)	11.2	4.55%	(0.7)
59	Tools & work equipment	32.2	(15.7)	16.5	amortize 15 yrs	(2.1)
60	Communication structures	3.4	(2.1)	1.3	4.88%	(0.2)
61	Communication equipment	19.1	(9.9)	9.2	amortize 15 yrs	(1.3)
62	Total General Plant	238.7	(102.9)	135.8		

Union Gas Limited
Monthly Customer Charge
EB-2005-0520 Current Approved 2007

	<u>\$/month</u>
Rate 01	16.00
Rate 10	70.00
Rate 20	780.00
Rate 25	190.00
Rate 77	145.00
Rate 100	780.00
Rate M2	16.00
Rate M5	500.00
Rate T1	1,800.00
Rate T3	
City of Kitchener	17,155.00
NRG	2,631.00
Six Nations	877.00
Rate U5	500.00
Rate U7	1,800.00
Rate U9	
City of Kitchener	17,155.00
NRG	2,631.00
Six Nations	877.00
Rate M13	662.00
Rate M16	750.00
Approved 2007 M2 redesign	
Rate M1	16.00
Rate M2	70.00

UNION GAS LIMITEDUndertaking of Union Gas
To School Energy Coalition ("SEC")

[C3.1] Please confirm that non-commodity rates for small commercial (M2) customers fell by 18.5% from 1993 (\$2,124) to 2007 (\$1,730), an average of 1.3% per year. Please confirm that this drop is before inflation, such that in constant dollars the drop would have been larger. Please confirm that, under Union's IR proposal, the same figure would increase from 2007 to 2008 by 5.6% from \$1,730 to \$1,827. Please describe the primary reasons for the drop from 1993 to 2007, and in particular estimate the impact of a) rate design changes, b) transfer of ancillary businesses out of the utility, c) increased economies of scale, d) regulatory regime applicable, e) any other material factors.

Transportation costs which have been included in the figures referenced in the question refer to upstream costs that would be outside of the incentive regulation framework.

The bill impacts provided at Exhibit C3/C16/C33.1 are not adjusted for inflation.

For 2008 the impact on the delivery and storage-related bill component for a customer consuming 17,000 m³ per year is \$79 (6.8%).

Over the 1993 to 1998 period, the delivery and storage bill components for customers consuming 17,000 m³ remained relatively flat. The average change over the 1993 to 1998 period was 0.57%. The majority of the decline in the average customer bill occurred over the 1998 to 2007 period, decreasing by \$424 or 27%. Union is not able to isolate all of the causes of the decline over the period. Union is able, however, to provide the following explanation with respect to some of the factors contributing to the decline in the average bill for customers consuming 17,000 m³ per year.

Changes in Rate Design

Over the 2002 and 2007 period Union increased the monthly customer charge from \$7.50 to \$16.00. Union proposed and the Board approved these changes on the basis that increasing the monthly customer charge results in a better alignment between the incurrence of customer related costs and the recovery of customer related costs. By increasing the monthly customer charge, Union reduced the intra-class subsidy provided by larger M2 customers to smaller M2 customers.

Union estimates that, based on the 2007 approved rates, increasing the monthly customer charge from \$7.50 to \$16.00 has reduced the average bill for customers consuming 17,000 m³ per year by approximately \$350 over the 2002 to 2007 period. In other words, if Union were to decrease the monthly customer charge from the current approved level of \$16.00 to \$7.50, the average

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delivery and storage bill for customers consuming 17,000 m³ per year would be approximately \$1,525 (approximately equal to the 1993 level unadjusted for inflation).

Elimination of the Delivery Commitment Credit ("DCC")

In its RP-2002-0130 Decision, the Board directed Union to eliminate the DCC payment to direct purchase customers and the DCC cost included in delivery rates over a 5 year period starting in July of 2003. The DCC cost included in in-franchise delivery rates at the time Union started to eliminate the DCC was approximately \$27.3 million of which \$19.1 million was allocated to the M2 rate class. Union is not able to provide the average bill impact associated with eliminating the DCC.

Forecast S&T Margin

Since 1999, Union's delivery rates have been subsidized through the inclusion of forecast S&T margin. Delivery rates over 1999 to 2003 period included approximately a \$4.5 million subsidy. The subsidy increased in 2004 and 2007 to approximately \$22.4 million and \$34.4 million, respectively. Union is not able to provide the average bill impact associated with increasing the delivery rate subsidy associated with S&T forecast margin.

Consistent with the Board's EB-2005-0551 Decision, Union will begin to remove the long-term storage premium from rates starting in 2008 and adjust the sharing of the short-term transactional storage margin. Implementing the Board's EB-2005-0551 Decision, contributes to the 2008 average bill impact for a customer consuming 17,000 m³.

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UNION GAS LIMITED

Undertaking of Union Gas To School Energy Coalition ("SEC")

[C3.1] Please provide a chart similar to d) on page 3 for a school using 45,000 m³ per year and a school using 60,000 m³ per year, and include in that chart the proposed year 2008 figures.

Commercial Bill Comparison General Service - Rate M2 Based on an annual consumption of 45,000 m ³						
Line No.	Year	EBRO Number	Delivery & Storage (\$)	Transportation (\$)	Commodity (\$)	Estimated Annual Bill (\$)
	(a)	(b)	(c)	(d)	(e)	(f)
1	1993	476-03-04	3,299	1,571	3,366	8,236
2	1994	476-06	3,142	1,640	3,698	8,480
3	1995	486	3,315	1,448	2,941	7,703
4	1996	486-04	3,315	1,610	2,792	7,717
5	1997	494	3,140	2,057	3,280	8,477
6	1998	494-06A	3,402	1,534	3,556	8,492
7	1999	499	3,022	1,532	4,618	9,173
8	2000	RP-1999-0017	3,082	1,532	14,092	18,707
9	2001	RP-2001-0029	3,235	1,918	8,820	13,974
10	2002	RP-2001-0029	3,046	1,918	8,820	13,785
11	2003	RP-2002-0130	2,903	2,038	11,724	16,666
12	2004	RP-2003-0063	2,966	1,696	12,007	16,669
13	2005	RP-2003-0063	2,658	1,825	13,300	17,783
14	2006	EB-2005-0531	2,592	1,607	18,753	22,951
15	2007	EB-2006-0502	2,544	1,510	11,174	15,228
16	2008	EB-2007-0606	2,920	1,510	11,174	15,604

Note: includes rate riders

Commercial Bill Comparison General Service - Rate M2 Based on an annual consumption of 60,000 m ³						
Line No.	Year	EBRO Number	Delivery & Storage (\$)	Transportation (\$)	Commodity (\$)	Estimated Annual Bill (\$)
	(a)	(b)	(c)	(d)	(e)	(f)
1	1993	476-03-04	4,127	2,095	4,488	10,709
2	1994	476-06	3,918	2,186	4,931	11,035
3	1995	486	4,131	1,930	3,921	9,982
4	1996	486-04	4,131	2,147	3,722	10,000
5	1997	494	3,897	2,743	4,374	11,014
6	1998	494-06A	4,248	2,046	4,741	11,035
7	1999	499	3,771	2,043	6,157	11,971
8	2000	RP-1999-0017	3,851	2,043	18,789	24,683
9	2001	RP-2001-0029	4,042	2,558	11,760	18,361
10	2002	RP-2001-0029	3,805	2,558	11,760	18,123
11	2003	RP-2002-0130	3,628	2,718	15,633	21,978
12	2004	RP-2003-0063	3,730	2,261	16,009	22,000
13	2005	RP-2003-0063	3,327	2,433	17,733	23,493
14	2006	EB-2005-0531	3,239	2,142	25,004	30,385
15	2007	EB-2006-0502	3,201	2,014	14,899	20,114
16	2008	EB-2007-0606	3,570	2,014	14,899	20,483

Note: includes rate riders

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UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

Explain cost per customer of \$1,301 in Exhibit C10.1, Part c.

The costs included in the response to Exhibit C10.1 c) are: Mains (all construction costs associated with the installation of main piping), Service (all construction costs associated with the installation of service piping) and Meter & Regulator Installation (all costs associated with installing the meter).

The figure does not contain any indirect overhead costs, the cost of the meter or any reinforcement projects that might be required due to the expansion of the system.

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UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

Determine whether Union has documents that compare its customer bills to Enbridge's.

On a quarterly basis, Union prepares a high level comparison of its QRAM filing to Enbridge's but Union does not have any internal documents that compare its customer bills to Enbridge's.

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UNION GAS LIMITEDUndertaking of Union Gas
To School Energy Coalition ("SEC")

[C23.9] Please confirm that, if Union's proposed adjustment for weather were calculated based on a 20 year trend of 5 year periods of degree days, the result would be a reduced adjustment for the 2008 through 2012 period. Please calculate that amount, and show the details of that calculation.

The revenue adjustment would be larger if the weather normal contained in 2007 rates was based on the method described in the question. Using this method, both the Southern and Northern & Eastern Operations areas would have lower weather normals. The difference is 32 HDD in the Southern Operations area and 42 HDD for Northern & Eastern operations area, as outlined in the table below. This difference would add approximately \$1.7 million to the delivery revenue adjustment identified for the 20 year declining trend.

Weather Normal Estimates: Heating Degree-Days below 18° C

Line No.		<u>55:45 blend</u> (a)	<u>5 & 20 T</u> (b)	<u>20 Year declining trend</u> (c)	<u>Difference</u> (d)=(b)-(c)
1	Southern	3,822	3,673	3,705	32
2	Northern & Eastern	5,090	4,889	4,931	42

The weather normal estimates obtained from this alternative method were calculated as follows:

To compute the weather normal estimate, actual annual HDD weather data spanning twenty five years was used, the period 1982 to 2006. Rolling five year totals were then calculated to obtain the twenty weather period totals required to set the trend line. The trend line was projected out three years to the year 2009, as this is the mid point year of the five year 2008 to 2012 forecast horizon. This projected total five year period weather estimate was then divided by 5 to yield the annual heating degree day estimate used throughout the five year period.

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UNION GAS WEATHER NORMAL: 5 Year Total 20 Year Trend Method

heating degree-days below 18C

Year	Southern Operations Area			Northern & Eastern Operations Area		
	Act. HDD	Act 5 Yr. Totals	20 yr. Trend	Act. HDD	5 Yr. Totals	20 yr. Trend
			Projection			Projection
1982	4,011			5,430		
1983	3,908			5,195		
1984	3,997			5,175		
1985	3,926			5,438		
1986	3,882	19,724		5,175	26,413	
1987	3,684	19,397		4,722	25,705	
1988	3,986	19,475		5,317	25,827	
1989	4,154	19,632		5,654	26,306	
1990	3,572	19,277		4,994	25,862	
1991	3,631	19,027		5,019	25,706	
1992	4,031	19,374		5,489	26,472	
1993	4,105	19,492		5,460	26,616	
1994	4,055	19,393		5,294	26,255	
1995	3,987	19,809		5,358	26,619	
1996	4,153	20,330		5,550	27,151	
1997	4,005	20,304		5,384	27,046	
1998	3,225	19,424		4,457	26,043	
1999	3,641	19,010		4,754	25,503	
2000	3,876	18,900		5,158	25,304	
2001	3,467	18,214		4,592	24,345	
2002	3,636	17,844		4,997	23,958	
2003	3,958	18,577		5,111	24,612	
2004	3,786	18,722		5,148	25,006	
2005	3,778	18,623		4,829	24,677	
2006	3,332	18,489		4,423	24,508	
2007 P			18,493			24,640
2008 P			18,429			24,542
2009 P			18,365			24,443
2009 Est	3,673				4,889	

note: the 2009 estimate is the 2009 trend projection divided by 5

UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

[C32.15] Please provide the internal business cases for all large productivity-driven capital or operating projects during the period referred to. If there were any follow-up documents, for example monitoring or assessing performance relative to business cases, please provide those as well.

Attachments #1-#5 provide documentation regarding specific efforts that Union has undertaken. Specifically, the documents relate to:

1. Decisions to purchase CIS services from an external vendor.
2. IVR/CTI replacement
3. Distribution Construction Contractor Alliance
4. E-Billing
5. RP-2003-0063 interrogatory response discussing productivity initiatives undertaken during trial PBR plan term.

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Exhibit JTA.38 Attachments sent in separate email – 071011.

UNION GAS LIMITEDUndertaking of Union Gas
To School Energy Coalition ("SEC")

[C23.22] Please provide the data on the chart for the Executive level of employee. Please advise whether the forecast compensation levels for 2007 are consistent with the Board-approved OM&A budget for 2007 and, if not, what significant differences exist.

UNION GAS LIMITED
Executive Level Salary, Variable Pay, and Benefits

<u>Year</u>	<u>Particulars</u>	<u>FTE</u>	(\$000's)		
			<u>Total Salaries</u>	<u>Total Variable Pay</u>	<u>Total Benefits</u>
2006	Executive	9	1,742.8	782.6	366.0
2005	Executive	9	1,600.9	487.0	336.2
2004	Executive	9	1,901.3	824.5	361.2
<u>\$/FTE</u>		<u>Average Yearly Compensation</u>	<u>Average Salary</u>	<u>Average Variable Pay</u>	<u>Average Banefits</u>
2006		321.3	193.6	87.0	40.7
2005		269.3	177.9	54.1	37.4
2004		343.0	211.3	91.6	40.1

Forecast 2007 executive compensation could not be compiled in the time available as a result of how the 2007 budget was created. However, 2007 levels are consistent with the Board approved O&M budget for 2007.

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UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

1. [C23.52, Sched. 2] Please recalculate the figures on this Schedule with the following changes:
 - a. Escalate revenues by the proposed price cap formula at the same assumed inflation rate as O&M.
 - b. Escalate salary and wage expense at 3% instead of 3.75%.
 - c. Keep the level of O&M expense capitalized at the same percentage of O&M as is expected in 2007, ie. 17.47%.
-

The after-tax impacts to Earnings Applicable to Common Shares using the above assumptions are as follows:

<u>(\$millions)</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
a.	12	24	37
b.	1	1	2
c.	3	6	10

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UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

[C23.52, Sched. 2] Please explain why the forecasts assume that capitalized O&M will drop year over year during the three forecast years.

The majority of the year over year drop in capitalized O&M is due to updated estimates of the number of personnel and associated costs that support the capital projects for each year.

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UNION GAS LIMITED

Undertaking of Union Gas
To SEC

[C23.52, Sched. 8] Please provide the rate base continuity calculations supporting the figures on this schedule, i.e. breakdowns by category, additions, depreciation and retirements in each category for each year, etc.

The requested information is not available. The forecast provided in the response provided at Exhibit C23.52 was created at a high level. The rate base figures are averages, assuming the addition of the capital expenditures as outlined in Schedule 7.

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UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

[C1.8] Please confirm that the compound annual reduction in normalized average use per customer for the seven years 2000 to 2006 inclusive was 1.51% per year.

Union calculates an average annual rate of NAC decline for all general service customers of 1.13% per annum, using the data contained in the column entitled "If no DSM Average use per Customer" in Exhibit C1.08, part a) Corrected. Using the column entitled "Average use per Customer" the average annual rate of NAC decline is 1.62% per annum.

Question: October 3, 2007
Answer: October 11, 2007
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UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

[C1.8] Please confirm that the impact of DSM on use per customer averaged 4/10ths of 1% from 2000 to 2005, then jumped to 8/10ths of 1% in 2006. Please explain why this increase in DSM impact per customer occurred. Please advise the cost per customer for all DSM programs for each year from 2000 to 2006 inclusive. Please provide a chart showing the amount and calculation of the LRAM for each of the same years.

The original table in Exhibit C1.8 a) did not reflect the cumulative effect of DSM programs. Please refer to the response provided at Exhibit C1.8 Corrected. The relatively significant increase in 2006 compared to previous years is a result of higher natural gas savings achieved through 2006 DSM programs.

DSM expenditures per customer by program are shown in the table below.

DSM Expenditures Per Customer by Program							
	2000	2001	2002	2003	2004	2005	2006
Residential	\$ 2.07	\$ 1.81	\$ 1.31	\$ 1.88	\$ 2.15	\$ 2.08	\$ 3.62
Commercial	\$ 9.64	\$ 9.08	\$ 6.50	\$ 7.22	\$ 13.87	\$ 17.45	\$ 40.13
Distribution Contract	\$ 2,396.08	\$ 1,809.77	\$ 1,809.45	\$ 2,054.01	\$ 4,095.99	\$ 8,116.88	\$ 8,259.89
Total	\$ 3.94	\$ 3.34	\$ 2.57	\$ 3.23	\$ 4.82	\$ 6.48	\$ 10.09

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The volumes savings and LRAM calculation for the years 2000 through 2006 are shown in the table below.

UNION GAS LIMITED																					
Lost Revenue Adjustment Mechanism																					
Audited Results																					
Particulars	2000 ¹			2001 ²			2002 ³			2003 ⁴			2004 ⁵			2005 ⁶			2006 ⁷		
	Net Volume Savings	Delivery Rate	Revenue Impact	Net Volume Savings	Delivery Rate	Revenue Impact	Net Volume Savings	Delivery Rate	Revenue Impact	Net Volume Savings	Delivery Rate	Revenue Impact	Net Volume Savings	Delivery Rate	Revenue Impact	Net Volume Savings	Delivery Rate	Revenue Impact	Net Volume Savings	Delivery Rate	Revenue Impact
	10 ³ m ³	\$/10 ³ m ³	(\$)	10 ³ m ³	\$/10 ³ m ³	(\$)	10 ³ m ³	\$/10 ³ m ³	(\$)	10 ³ m ³	\$/10 ³ m ³	(\$)	10 ³ m ³	\$/10 ³ m ³	(\$)	10 ³ m ³	\$/10 ³ m ³	(\$)	10 ³ m ³	\$/10 ³ m ³	(\$)
	(a)	(b)	(c) = (a) x (b)	(d)	(e)	(f) = (d) x (e)	(g)	(h)	(i) = (g) x (h)	(j)	(k)	(l) = (j) x (k)	(m)	(n)	(o) = (m) x (n)	(p)	(q)	(r) = (p) x (q)	(s)	(t)	(u) = (s) x (t)
South																					
M2 Residential	9,415	87.043	819,517	10,005	91.480	915,236	8,880	84.720	752,314	7,220	78.956	570,062	3,904	74.196	289,677	3,703	67.316	249,286	10,194	66.158	674,395
M2 Commercial	3,157	57.990	183,086	6,349	60.946	386,952	12,127	57.426	696,405	9,104	54.998	500,702	12,743	56.479	719,724	11,661	51.167	596,673	19,101	50.009	955,233
M2 Industrial			0			0			0			0			0	1,262	39.246	49,514	1,638	38.088	62,398
Industrial																					
M4	2,379	10.668	25,377	3,382	12.138	41,048	4,533	10.028	45,457	3,262	10.057	32,806	4,135	9.419	38,952	6,154	8.692	53,494	5,282	7.963	42,063
M5			0			0			0			0	5,200	17.525	91,137	6,741	15.777	106,360	8,978	15.399	138,257
M7		3.319	0		4.730	0	145	3.615	524	3,027	3.819	11,560	0	3.491	0	4,681	3.115	14,581	2,573	2.739	7,049
T1	8,780	1.710	15,013	14,068	1.676	23,578	5,250	1.666	8,747	3,233	1.538	4,972	9,061	1.240	11,236	7,227	1.011	7,306	19,870	0.783	15,558
	23,731		1,042,993	33,804		1,366,814	30,935		1,503,446	25,846		1,120,103	35,045		1,150,726	41,429		1,077,214	67,637		1,894,952
North																					
Residential 01	3,266	99.890	326,276	3,228	100.650	324,851	2,742	100.750	276,257	5,239	98.260	514,784	1,121	102.411	114,799	1,359	111.186	151,133	2,222	111.186	247,024
Commercial 01	422	82.280	34,756	494	82.670	40,804	816	82.750	67,524	549	80.705	44,307	674	88.061	59,338	1,340	104.976	140,667	4,522	104.976	474,724
Commercial 10	413	57.900	23,939	1,642	58.510	96,100	636	58.570	37,251	1,080	57.515	62,116	2,583	55.711	143,877	2,170	64.820	140,688	1,473	64.820	95,454
Industrial 10																621	59.311	36,821	600	59.311	35,569
Industrial																					
Rate 20		4.170	0	55	4.260	235	6,991	2.870	20,064	93	3.140	292	2,522	2.645	6,670	10,887	2.647	28,819	1,800	2.647	4,765
Rate 100	4,513	1.960	8,845	8,803	1.990	17,519	775	1.990	1,542	6,053	1.950	11,803	13,667	1.983	27,102	6,987	1.983	13,855	12,221	1.983	24,234
	8,615		393,817	14,222		479,509	11,960		402,637	13,014		633,303	20,566		351,786	23,365		511,983	22,837		881,770
Total	32,346		1,436,811	48,026		1,846,323	42,895		1,906,084	38,860		1,753,405	55,611		1,502,512	64,794		1,589,197	90,474		2,776,722
Year One Impact (50%)	16,173		718,406	24,013		923,162	21,448		953,042	19,430		876,703	27,805		751,256	32,397		794,599	45,237		1,388,361

¹ RP-2001-0029, Exhibit B, Tab 10, Schedule 2 Updated.
² RP-2002-0130, Exhibit B, Tab 4, Schedule 2 Updated January 2003.
³ RP-2003-0063, Exhibit D1, Tab 13, Schedule 1 Updated October 2003.
⁴ EB-2006-0057, Exhibit A, Tab 1, Schedule 2, Page 2 of 4.
⁵ EB-2006-0021, Exhibit JT 2.27, Attachment 2 (Summary of the Results of the 2004 Evaluation Report Audit), page 5.
⁶ EB-2007-0598, Exhibit A, Exhibit A, Tab 1, Schedule 2, Page 4 of 5 Corrected July 20, 2007 with the revenue impact at 100%.
⁷ Summary of the Results of the 2006 Evaluation Report Audit, page 4 (submitted by Union to the OEB Secretary on June 29, 2007 in compliance with section 2.1.12 of the Board's Reporting and Record Keeping Requirements) updated for the reclassification of the M4 and M5 volumes discussed in Union's July 20, 2007 letter to the Board in the EB-2007-0598 proceeding.

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UNION GAS LIMITEDUndertaking of Union Gas
To School Energy Coalition ("SEC")

[C3.12, page 7, and C23.27] Please provide your best estimate of the changes in normalized average use per customer for customers currently in the M1 and M2 classes, and provide the method used to produce the estimate. Please advise whether Union believes the trend applicable to Commercial Rate 10 customers would be a reasonable proxy for new Rate M2 customers. If not, why not?

Union currently expects that the rate of NAC decline for the non residential customers served by rates M1 and M2 will differ.

For residential customers, the expected rate of NAC decline for rate M1 customers will be similar to that experienced under the old rate M2 structure as virtually all customers fall in the rate M1 customer class.

For commercial customers the small volume rate M1 group is expected to decline at 1.6 % per year and the larger volume rate M2 groups at about 1.2% per year. The difference in the rates of decline arises as a result of expected changes in the composition of the rate classes. The number of lower volume office/retail customers is expected to grow the fastest. These customers are in the M1 rate group.

For industrial customers the small volume rate M1 group is expected to decline at 1.7 % per year and the larger volume rate M2 groups at 3.0% per year. The difference in the rates of decline is also a result of expected changes in the composition of the rate classes. The number of higher volume industrial customers is expected to grow the fastest. These customers are in the new rate M2 rate group. Rate M2 customers are on average about 19 times larger than rate M1 customers.

Union does not believe commercial rate 10 NAC would be a good proxy for the new rate M2 commercial group of customers for two reasons. First, the correlation statistic between commercial rate M2 and 10 customers in regards to their respective annual rates of decline in NAC over the period 1991 to 2006 is very low. This correlation is only 21 percent. This low correlation suggests that the composition of the customer classes is different. Commercial rate 10 is a very small group of customers and comparatively is about one quarter the size of the new rate M2 class.

Second, the normalized average consumption for the new commercial rate M2 class is about 1.5 times the consumption level of commercial rate 10 customers. This difference also points to differences in the composition of the customer classes. The composition of the customer class

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reflects commercial segments, building vintages, gas technology in place and in the future, and completed & potential energy efficiency expenditures. Customer growth and market conditions also vary by commercial segment.

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UNION GAS LIMITEDUndertaking of Union Gas
To School Energy Coalition ("SEC")

[C3.28] Please confirm that, if Union has the same additions to the same categories for each of 2008 through 2012 as well, the annual decrease in revenue requirement will be as set forth in the attached spreadsheet entitled "CCA Rate Changes", and the total pre-tax benefit to the shareholder of the tax change over the years 2007 through 2012 inclusive would be \$29.0 million.

If the same additions to the same categories for each of 2008 through 2012 were incurred as that estimated for 2007 and if the rates are implemented by the government (which has still not yet occurred) and the effect of these reductions do not find their way into the inflation factor, there would be a decrease in the annual revenue requirement over the years 2007 through 2012 inclusive as set forth in the attached schedule. The total over these years would be approximately \$22 Million.

Estimated Annual Decrease in Revenue Requirement

	2007	2008	2009	2010	2011	2012
Incremental CCA claim						
Computer equipment	- 437,050	- 874,100	- 765,930	- 549,590	- 360,023	- 223,999
Non-residential buildings	- 125,155	- 362,950	- 576,664	- 768,136	- 939,077	- 1,091,081
Distribution lines	- 1,207,116	- 3,500,636	- 5,561,908	- 7,408,650	- 9,057,370	- 10,523,437
	- 1,769,321	- 4,737,686	- 6,904,502	- 8,726,377	- 10,356,470	- 11,838,517
Tax rate	36.12%	34.50%	34.00%	33.00%	32.50%	32.50%
	- 639,079	- 1,634,502	- 2,347,531	- 2,879,704	- 3,365,853	- 3,847,518
Gross up factor	1.5654	1.5267	1.5152	1.4925	1.4815	1.4815
	- 1,000,436	- 2,495,422	- 3,556,865	- 4,298,066	- 4,986,449	- 5,700,027
Decrease in Revenue Requirement	- 1,000,436	- 2,495,422	- 3,556,865	- 4,298,066	- 4,986,449	- 5,700,027

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Estimate of tax depreciation
Computers

	New rate 55%					
	2007	2008	2009	2010	2011	2012
Opening UCC	-	6,337,225	9,188,976	10,472,264	11,049,744	11,309,610
Additions	8,741,000	8,741,000	8,741,000	8,741,000	8,741,000	8,741,000
Balance before half year rule	8,741,000	15,078,225	17,929,976	19,213,264	19,790,744	20,050,610
Half year rule	- 4,370,500	- 4,370,500	- 4,370,500	- 4,370,500	- 4,370,500	- 4,370,500
Revised balance for CCA calculation	4,370,500	10,707,725	13,559,476	14,842,764	15,420,244	15,680,110
CCA claim	- 2,403,775	- 5,889,249	- 7,457,712	- 8,163,520	- 8,481,134	- 8,624,060
Ending UCC	6,337,225	9,188,976	10,472,264	11,049,744	11,309,610	11,426,549

	Old rate 45%					
	2007	2008	2009	2010	2011	2012
Opening UCC	-	6,774,275	10,500,126	12,549,344	13,676,414	14,296,303
Additions	8,741,000	8,741,000	8,741,000	8,741,000	8,741,000	8,741,000
Balance before half year rule	8,741,000	15,515,275	19,241,126	21,290,344	22,417,414	23,037,303
Half year rule	- 4,370,500	- 4,370,500	- 4,370,500	- 4,370,500	- 4,370,500	- 4,370,500
Revised balance for CCA calculation	4,370,500	11,144,775	14,870,626	16,919,844	18,046,914	18,666,803
CCA claim	- 1,966,725	- 5,015,149	- 6,691,782	- 7,613,930	- 8,121,111	- 8,400,061
Ending UCC	6,774,275	10,500,126	12,549,344	13,676,414	14,296,303	14,637,242

Incremental CCA claim based on proposed rates	437,050	874,100	765,930	549,590	360,023	223,999
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Estimate of tax depreciation
Non Residential Buildings

	New rate 6%					
	2007	2008	2009	2010	2011	2012
Opening UCC	-	12,140,035	23,551,668	34,278,603	44,361,922	53,840,241
Additions	12,515,500	12,515,500	12,515,500	12,515,500	12,515,500	12,515,500
Balance before half year rule	12,515,500	24,655,535	36,067,168	46,794,103	56,877,422	66,355,741
Half year rule	- 6,257,750	- 6,257,750	- 6,257,750	- 6,257,750	- 6,257,750	- 6,257,750
Revised balance for CCA calculation	6,257,750	18,397,785	29,809,418	40,536,353	50,619,672	60,097,991
CCA claim	- 375,465	- 1,103,867	- 1,788,565	- 2,432,181	- 3,037,180	- 3,605,879
Ending UCC	12,140,035	23,551,668	34,278,603	44,361,922	53,840,241	62,749,862

	Old rate 4%					
	2007	2008	2009	2010	2011	2012
Opening UCC	-	12,265,190	24,039,772	35,343,372	46,194,827	56,612,224
Additions	12,515,500	12,515,500	12,515,500	12,515,500	12,515,500	12,515,500
Balance before half year rule	12,515,500	24,780,690	36,555,272	47,858,872	58,710,327	69,127,724
Half year rule	- 6,257,750	- 6,257,750	- 6,257,750	- 6,257,750	- 6,257,750	- 6,257,750
Revised balance for CCA calculation	6,257,750	18,522,940	30,297,522	41,601,122	52,452,577	62,869,974
CCA claim	- 250,310	- 740,918	- 1,211,901	- 1,664,045	- 2,098,103	- 2,514,799
Ending UCC	12,265,190	24,039,772	35,343,372	46,194,827	56,612,224	66,612,925
Incremental CCA claim based on proposed rates	125,155	362,950	576,664	768,136	939,077	1,091,081

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Estimate of tax depreciation
Distribution Lines

	New rate		6%			
	2007	2008	2009	2010	2011	2012
Opening UCC	-	117,090,252	227,155,089	330,616,036	427,869,325	519,287,418
Additions	120,711,600	120,711,600	120,711,600	120,711,600	120,711,600	120,711,600
Balance before half year rule	120,711,600	237,801,852	347,866,689	451,327,636	548,580,925	639,999,018
Half year rule	- 60,355,800	- 60,355,800	- 60,355,800	- 60,355,800	- 60,355,800	- 60,355,800
Revised balance for CCA calculation	60,355,800	177,446,052	287,510,889	390,971,836	488,225,125	579,643,218
CCA claim	- 3,621,348	- 10,646,763	- 17,250,653	- 23,458,310	- 29,293,508	- 34,778,593
Ending UCC	117,090,252	227,155,089	330,616,036	427,869,325	519,287,418	605,220,425

	Old rate		4%			
	2007	2008	2009	2010	2011	2012
Opening UCC	-	118,297,368	231,862,841	340,885,696	445,547,636	546,023,098
Additions	120,711,600	120,711,600	120,711,600	120,711,600	120,711,600	120,711,600
Balance before half year rule	120,711,600	239,008,968	352,574,441	461,597,296	566,259,236	666,734,698
Half year rule	- 60,355,800	- 60,355,800	- 60,355,800	- 60,355,800	- 60,355,800	- 60,355,800
Revised balance for CCA calculation	60,355,800	178,653,168	292,218,641	401,241,496	505,903,436	606,378,898
CCA claim	- 2,414,232	- 7,146,127	- 11,688,746	- 16,049,660	- 20,236,137	- 24,255,156
Ending UCC	118,297,368	231,862,841	340,885,696	445,547,636	546,023,098	642,479,542
Incremental CCA claim based on proposed rates	1,207,116	3,500,636	5,561,908	7,408,650	9,057,370	10,523,437

Question: October 3, 2007
 Answer: October 11, 2007
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UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

[C23.38] Please provide the requested filings, in confidence if necessary.

Union will provide the information pursuant to an OEB order which provides for the preservation of confidentiality and a prohibition against trading.

Question: October 3, 2007
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UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

[C3.4] Please advise whether, in the attachment, page 1, the "current rates" are the 2007 Board approved M1 rates, or the actual rates being charged in 2007 to these customers, the 2007 Board approved M2 rates. Please provide the detailed calculations behind the charts on pages 1 and 2 of that Attachment.

The "current rates" in the attachment on pages 1 and 2 are the 2007 approved M1 and M2 rates adjusted for weather (please refer to EB-2007-0606, Exhibit D, Tab 3, Schedule 12).

The "current rates" in the attachment on pages 3 and 4 are the actual rates being charged in 2007 to general service customers.

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Current Rates: New Rate M1 & new Rate M2 - Weather Adjusted
2007 Approved Rates per EB-2005-0520

M1: Using \$16 monthly charge and no price cap	<u>Forecast Usage</u>	<u>Approved Revenue</u>	<u>Approved Rates</u>
Monthly Charge	11,761,016	188,176	\$16.00
Monthly Delivery Commodity Charge			
First 100 m3	921,326	51,148	5.5516
Next 150 m3	769,727	40,534	5.2660
All over 250 m3	1,107,542	50,838	4.5902
Total Delivery	<u>2,798,595</u>	<u>330,697</u>	<u>11.8165</u>
Storage	2,798,595	28,756	1.0275

M1: Using \$17 monthly charge and 2% price cap	<u>Forecast Usage</u>	<u>Approved Revenue</u>	<u>Approved Rates</u>	<u>Application of 2% Price Cap</u>	<u>Adjusted Revenue</u>	<u>Adjusted Rates</u>
Monthly Charge	11,761,016	199,937	\$17.00	-	199,937	\$17.00
Monthly Delivery Commodity Charge						
First 100 m3	921,326	46,928	5.0935	2,374	49,301	5.3511
Next 150 m3	769,727	37,189	4.8314	1,881	39,070	5.0758
All over 250 m3	1,107,542	46,643	4.2114	2,359	49,002	4.4244
Total Delivery	<u>2,798,595</u>	<u>330,697</u>	<u>11.8165</u>	<u>6,614</u>	<u>337,311</u>	<u>12.0529</u>
Storage	2,798,595	28,756	1.0275	575	29,331	1.0481

Application of 2% Price cap to MCC revenue: 3999
(to be allocated across the delivery blocks in proportion to approved revenues)

M2: Using \$70 monthly charge and no price cap	<u>Forecast Usage</u>	<u>Approved Revenue</u>	<u>Approved Rates</u>
Monthly Charge	83,737	5,862	\$70.00
Monthly Delivery Commodity Charge			
First 1,000 m3	75,469	2,825	3.7435
Next 6,000 m3	366,830	13,469	3.6718
Next 13,000 m3	301,554	10,427	3.4579
All over 20,000 m3	332,169	10,634	3.2015
Total Delivery	<u>1,076,022</u>	<u>43,218</u>	<u>4.0165</u>
Storage	1,076,022	8,133	0.7558

M2: Using \$75 monthly charge and 2% price cap	<u>Forecast Usage</u>	<u>Approved Revenue</u>	<u>Approved Rates</u>	<u>Application of 2% Price Cap</u>	<u>Adjusted Revenue</u>	<u>Adjusted Rates</u>
Monthly Charge	83,737	6,280	\$75.00	-	6,280	\$75.00
Monthly Delivery Commodity Charge						
First 1,000 m3	75,469	2,794	3.7015	65	2,859	3.7882
Next 6,000 m3	366,830	13,318	3.6306	312	13,630	3.7156
Next 13,000 m3	301,554	10,311	3.4191	241	10,552	3.4992
All over 20,000 m3	332,169	10,515	3.1656	246	10,761	3.2397
Total Delivery	<u>1,076,022</u>	<u>43,218</u>	<u>4.0165</u>	<u>864</u>	<u>44,082</u>	<u>4.0968</u>
Storage	1,076,022	8,133	0.7558	163	8,295	0.7709

Application of 2% Price Cap to MCC revenue: 126
(to be allocated across the delivery blocks in proportion to approved revenues)

Current Rates: New Rate M1 & new Rate M2 - Weather Adjusted
2007 Approved Rates per EB-2005-0520

RATE M1

Assumption #1:

Using 2007 Current Approved Revenue (weather adjusted)
Monthly Charge of \$16
No price cap escalator
Residential monthly volume distribution

Assumption #2:

Price cap escalator of 2%
Monthly charge of \$17
Residential monthly volume distribution

			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
			17.50%	18.30%	15.10%	9.10%	5.20%	2.90%	2.20%	2.10%	2.20%	4.80%	7.20%	13.40%	100.00%	
1,200 m ³	#1	Total Delivery Bill	29.50	30.11	27.69	23.16	20.11	18.29	17.74	17.66	17.74	19.79	21.68	26.41	269.86	22.4885 cents/m3
	#2	Total Delivery Bill	30.14	30.72	28.37	23.96	20.99	19.23	18.69	18.61	18.69	20.69	22.53	27.12	279.74	23.3118 cents/m3
		Impact	0.63	0.62	0.68	0.80	0.89	0.94	0.95	0.95	0.95	0.90	0.84	0.72	9.88	4% 0.8234 cents/m3
2,500 m ³	#1	Total Delivery Bill	42.55	43.68	39.18	30.60	24.47	20.77	19.62	19.45	19.62	23.84	27.61	36.79	348.19	13.9275 cents/m3
	#2	Total Delivery Bill	42.85	43.94	39.56	31.21	25.24	21.64	20.52	20.36	20.52	24.62	28.30	37.24	355.99	14.2396 cents/m3
		Impact	0.29	0.26	0.38	0.60	0.77	0.87	0.90	0.91	0.90	0.79	0.68	0.44	7.80	2% 0.3121 cents/m3
45,000 m ³	#1	Total Delivery Bill	460.37	480.59	399.70	248.02	149.43	91.29	73.59	71.06	73.59	139.32	199.99	356.72	2,743.67	6.0970 cents/m3
	#2	Total Delivery Bill	449.86	469.56	390.76	243.00	146.96	90.32	73.08	70.62	73.08	137.11	196.21	348.90	2,689.47	5.9766 cents/m3
		Impact	(10.51)	(11.03)	(8.94)	(5.02)	(2.47)	(0.97)	(0.51)	(0.44)	(0.51)	(2.21)	(3.78)	(7.83)	(54.20)	-2% -0.1204 cents/m3

RATE M2

Assumption #1:

Using 2007 Current Approved Revenue (weather adjusted)
Monthly Charge of \$70
No price cap escalator
Industrial monthly volume distribution

Assumption #2:

Price cap escalator of 2%
Monthly charge of \$75
Industrial monthly volume distribution

			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
			13.80%	14.10%	12.20%	7.80%	5.50%	4.70%	3.60%	3.90%	4.70%	8.40%	9.80%	11.50%	100.00%	
55,000 m ³ (1)	#1	Total Delivery Bill	405.51	412.46	367.81	260.66	204.65	185.17	158.38	165.69	185.17	275.27	309.36	350.76	3,280.91	5.9653 cents/m3
	#2	Total Delivery Bill	414.97	422.02	376.77	268.20	211.44	191.70	164.56	171.96	191.70	283.00	317.55	359.50	3,373.38	6.1334 cents/m3
		Impact	9.46	9.56	8.96	7.54	6.79	6.53	6.18	6.27	6.53	7.73	8.18	8.73	92.47	3% 0.1681 cents/m3
100,000 m ³	#1	Total Delivery Bill	667.18	679.82	599.76	414.36	314.24	278.81	230.11	243.39	278.81	439.64	498.63	570.27	5,215.03	5.2150 cents/m3
	#2	Total Delivery Bill	680.15	692.96	611.83	423.94	322.48	286.59	237.24	250.70	286.59	449.56	509.34	581.94	5,333.32	5.3333 cents/m3
		Impact	12.97	13.14	12.06	9.58	8.25	7.78	7.13	7.31	7.78	9.92	10.71	11.67	118.29	2% 0.1183 cents/m3
250,000 m ³	#1	Total Delivery Bill	1,502.24	1,531.92	1,343.95	907.36	665.07	580.80	464.92	496.53	580.80	968.00	1,106.51	1,274.69	11,422.79	4.5691 cents/m3
	#2	Total Delivery Bill	1,526.43	1,556.51	1,366.01	923.54	678.01	592.61	475.18	507.21	592.61	985.00	1,125.37	1,295.82	11,624.31	4.6497 cents/m3
		Impact	24.19	24.59	22.06	16.18	12.94	11.81	10.26	10.68	11.81	17.00	18.86	21.13	201.52	2% 0.0806 cents/m3

(1) M2 Rates do not apply to consumers using 50,000 m³

Bill Impacts at Various Consumption Levels

	Using current Rates (1) Annual Bill (\$) (a)	Price Cap & new MCC (2) Annual Bill (\$) (b)	Annual Impact (\$) (c) = (b) - (a)	Percent Change (%) (d) = (b-a) / (a)
Annual Consumption of 1,200 m³				
<u>Delivery Charges</u>				
Monthly Charge	192.00	204.00	12.00	
Delivery Commodity Charge	62.04	63.16	1.12	
Storage Services	11.17	12.58	1.41	
Total Delivery Charge	265.21	279.74	14.53	5.5%
Annual Consumption of 2,500 m³				
<u>Delivery Charges</u>				
Monthly Charge	192.00	204.00	12.00	
Delivery Commodity Charge	129.25	125.79	(3.47)	
Storage Services	23.27	26.20	2.93	
Total Delivery Charge	344.52	355.99	11.47	3.3%
Annual Consumption of 45,000 m³				
<u>Delivery Charges</u>				
Monthly Charge	192.00	204.00	12.00	
Delivery Commodity Charge	1,970.60	2,013.83	43.23	
Storage Services	418.91	471.65	52.74	
Total Delivery Charge	2,581.51	2,689.47	107.96	4.2%

Notes:

- (1) Rates are 2007 Rate M2 current approved before the rate class split.
(2) Rates are new M1 rates adjusted for weather, SEC price cap, and new Monthly Customer Charge.

Bill Impacts at Various Consumption Levels

	Using current Rates Annual Bill (\$) (a)	(2) Price Cap & new MCC Annual Bill (\$) (b)	(3) Annual Impact (\$) (c) = (b) - (a)	Percent Change (%) (d) = (b-a) / (a)
Annual Consumption of 55,000 m³ (1)				
<u>Delivery Charges</u>				
Monthly Charge	192.00	900.00	708.00	
Delivery Commodity Charge	2,404.80	2,049.38	(355.42)	
Storage Services	512.00	424.00	(88.01)	
Total Delivery Charge	3,108.80	3,373.38	264.58	8.5%
Annual Consumption of 100,000 m³				
<u>Delivery Charges</u>				
Monthly Charge	192.00	900.00	708.00	
Delivery Commodity Charge	3,939.08	3,662.42	(276.66)	
Storage Services	930.90	770.90	(160.00)	
Total Delivery Charge	5,061.98	5,333.32	271.34	5.4%
Annual Consumption of 250,000 m³				
<u>Delivery Charges</u>				
Monthly Charge	192.00	900.00	708.00	
Delivery Commodity Charge	8,648.24	8,797.06	148.82	
Storage Services	2,327.24	1,927.25	(399.99)	
Total Delivery Charge	11,167.48	11,624.31	456.83	4.1%

Notes:

- (1) Customer consuming 50,000 m³ are not eligible for M2 rates. Union has provided a comparison using 55,000 m³.
(2) Rates are 2007 Rate M2 current approved before the rate class split.
(3) Rates are new M2 rates adjusted for weather, SEC price cap, and new Monthly Customer Charge.

UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

[D/3/11] Please recalculate all figures in this Schedule on the basis that the price cap increase is applied to both the fixed charge and the variable charge for each class. Please add to the existing Schedule, and the recalculated Schedule requested, calculations for a school with 45,000 m3 of annual use and a school with 60,000 m3 of annual use.

Please see attached schedules.

Question: October 3, 2007
Answer: October 11, 2007
Docket: EB-2007-0606 / EB-2007-0615

UNION GAS LIMITED
Southern Operations Area
General Service Customer Bill Impacts

Line No.	Particulars	Rate M1 - Residential (Annual Consumption of 2,600 m ³)			
		EB-2005-0520 Approved 01-Jan-07 Total Bill (\$ (1)	EB-2007-0606 Adjusted Calculation 01-Jan-08 Total Bill (\$ (1)	Impact (\$)	Percent Change (%)
		(a)	(b)	(c) = (b) - (a)	(d) = (c) / (a)
<u>Delivery Charges</u>					
1	Monthly Charge	192.00	196.65	4.65	4.3%
2	Delivery Commodity Charge	134.42	142.27	7.85	
3	Storage Service	24.19	26.75	2.56	
4	Total Delivery Charge	350.61	365.67	15.06	
<u>Supply Charges</u>					
5	Transportation to Union	86.55	86.55	-	
6	Gas Supply Commodity (2)	767.59	767.59	-	
7	Total Gas Supply Charge	854.14	854.14	-	
8	Total Bill	1,204.75	1,219.80	15.06	1.2%
9	Impacts for Customer Notices - Sales (line 8)			15.06	
10	Impacts for Customer Notices - Direct Purchase (line 4)			15.06	

Notes:

- (1) Excludes price adjustments.
(2) Gas Supply Commodity and Fuel Rates will be updated as part of the Board approved QRAM process.

UNION GAS LIMITED
Southern Operations Area
General Service Customer Bill Impacts

		Rate M2 - Industrial (Annual Consumption of 73,000 m ³)			
		EB-2005-0520	EB-2007-0606		
		Approved	Adjusted Calculation		
		01-Jan-07	01-Jan-08		
Line		Total	Total	Impact	Percent
No.	Particulars	Bill (\$ (1)	Bill (\$ (1)	(\$)	Change
		(a)	(b)	(c) = (b) - (a)	(d) = (c) / (a)
	<u>Delivery Charges</u>				
1	Monthly Charge	192.00	860.33	668.33	
2	Delivery Commodity Charge	3,038.74	2,743.82	(294.92)	
3	Storage Service	679.57	552.46	(127.11)	
4	Total Delivery Charge	3,910.31	4,156.61	246.30	6.3%
	<u>Supply Charges</u>				
5	Transportation to Union	2,429.96	2,429.96	-	
6	Gas Supply Commodity (2)	21,551.30	21,551.30	-	
7	Total Gas Supply Charge	23,981.26	23,981.26	-	
8	Total Bill	27,891.57	28,137.87	246.30	0.9%
9	Impacts for Customer Notices - Sales (line 8)			246.30	
10	Impacts for Customer Notices - Direct Purchase (line 4)			246.30	

Notes:

(1) Excludes price adjustments.

(2) Gas Supply Commodity and Fuel Rates will be updated as part of the Board approved QRAM process.

UNION GAS LIMITED
Northern & Eastern Operations Area
General Service Customer Bill Impacts

Line No.	Particulars	(Fort Frances) Rate 01 - Residential (Annual Consumption of 2,600 m ³)				(Western) Rate 01 - Residential (Annual Consumption of 2,600 m ³)			
		EB-2005-0520 Approved 01-Jan-07 Total Bill (\$) (1) (a)	EB-2007-0606 Adjusted Calculation 01-Jan-08 Total Bill (\$) (1) (b)	Impact (\$) (c)=(b)-(a)	Percent Change (%) (d) = (c) / (a)	EB-2005-0520 Approved 01-Jan-07 Total Bill (\$) (1) (e)	EB-2007-0606 Adjusted Calculation 01-Jan-08 Total Bill (\$) (1) (f)	Impact (\$) (g) = (f)-(e)	Percent Change (%) (h) = (g) / (e)
	<u>Delivery Charges</u>								
1	Monthly Charge	192.00	196.65	4.65		192.00	196.65	4.65	
2	Delivery Commodity Charge	229.51	245.05	15.54		229.51	245.05	15.54	
3	Total Delivery Charge	421.51	441.70	20.19	4.8%	421.51	441.70	20.19	4.8%
	<u>Supply Charges</u>								
4	Transportation to Union	77.43	77.46	0.03		78.03	78.11	0.08	
5	Storage Service	49.67	50.56	0.89		49.59	50.49	0.90	
6	Subtotal	127.10	128.02	0.92		127.62	128.60	0.98	
7	Commodity & Fuel (2)	743.15	743.15	-		750.08	750.08	-	
8	Total Gas Supply Charge	870.25	871.17	0.92		877.70	878.68	0.98	
9	Total Bill	<u>1,291.76</u>	<u>1,312.87</u>	<u>21.11</u>	<u>1.6%</u>	<u>1,299.21</u>	<u>1,320.38</u>	<u>21.17</u>	<u>1.6%</u>
10	Impacts for Customer Notices - Sales (line 10)			21.11				21.17	
11	Impacts for Customer Notices - Direct Purchase (line 3 + line 4 + line 5)			21.11				21.17	

Notes:

(1) Excludes price adjustments.

(2) Gas Supply Commodity and Fuel Rates will be updated as part of the Board approved QRAM process.

UNION GAS LIMITED
Northern & Eastern Operations Area
General Service Customer Bill Impacts

Line No.	Particulars	(Northern) Rate 01 - Residential (Annual Consumption of 2,600 m ³)				(Eastern) Rate 01 - Residential (Annual Consumption of 2,600 m ³)			
		EB-2005-0520 Approved 01-Jan-07 Total Bill (\$) (1) (a)	EB-2007-0606 Adjusted Calculation 01-Jan-08 Total Bill (\$) (1) (b)	Impact (\$) (c)=(b)-(a)	Percent Change (%) (d) = (c) / (a)	EB-2005-0520 Approved 01-Jan-07 Total Bill (\$) (1) (e)	EB-2007-0606 Adjusted Calculation 01-Jan-08 Total Bill (\$) (1) (f)	Impact (\$) (g) = (f)-(e)	Percent Change (%) (h) = (g) / (e)
	<u>Delivery Charges</u>								
1	Monthly Charge	192.00	196.65	4.65		192.00	196.65	4.65	
2	Delivery Commodity Charge	229.34	244.86	15.52		228.96	244.46	15.50	
3	Total Delivery Charge	421.34	441.51	20.17	4.8%	420.96	441.11	20.15	4.8%
	<u>Supply Charges</u>								
4	Transportation to Union	93.95	94.02	0.07		107.62	107.70	0.08	
5	Storage Service	59.68	60.75	1.07		67.81	69.04	1.23	
6	Subtotal	153.63	154.77	1.14		175.43	176.74	1.31	
7	Commodity & Fuel (2)	759.54	759.54	-		767.59	767.59	-	
8	Total Gas Supply Charge	913.17	914.31	1.14		943.02	944.33	1.31	
9	Total Bill	1,334.51	1,355.82	21.31	1.6%	1,363.98	1,385.44	21.46	1.6%
10	Impacts for Customer Notices - Sales (line 10)			21.31				21.46	
11	Impacts for Customer Notices - Direct Purchase (line 3 + line 4 + line 5)			21.31				21.46	

Notes:

(1) Excludes price adjustments.

(2) Gas Supply Commodity and Fuel Rates will be updated as part of the Board approved QRAM process.

UNION GAS LIMITED
Northern & Eastern Operations Area
General Service Customer Bill Impacts

Line No.	Particulars	(Fort Frances) Rate 10 - Commercial (Annual Consumption of 93,000 m ³)				(Western) Rate 10 - Commercial (Annual Consumption of 93,000 m ³)			
		EB-2005-0520 Approved 01-Jan-07 Total Bill (\$ (1) (a)	EB-2007-0606 Adjusted Calculation 01-Jan-08 Total Bill (\$ (1) (b)	Impact (\$) (c)=(b)-(a)	Percent Change (%) (d) = (c) / (a)	EB-2005-0520 Approved 01-Jan-07 Total Bill (\$ (1) (e)	EB-2007-0606 Adjusted Calculation 01-Jan-08 Total Bill (\$ (1) (f)	Impact (\$) (g) = (f)-(e)	Percent Change (%) (h) = (g) / (e)
	<u>Delivery Charges</u>								
1	Monthly Charge	840.00	860.33	20.33		840.00	860.33	20.33	
2	Delivery Commodity Charge	5,523.40	5,765.57	242.17		5,523.40	5,765.57	242.17	
3	Total Delivery Charge	6,363.40	6,625.90	262.50	4.1%	6,363.40	6,625.90	262.50	4.1%
	<u>Supply Charges</u>								
4	Transportation to Union	2,539.92	2,539.92	-		2,562.33	2,562.33	-	
5	Storage Service	1,139.72	1,159.89	20.17		1,137.47	1,157.66	20.19	
6	Subtotal	3,679.64	3,699.81	20.17		3,699.80	3,719.99	20.19	
7	Commodity & Fuel (2)	26,581.53	26,581.53	-		26,829.94	26,829.94	-	
8	Total Gas Supply Charge	30,261.17	30,281.34	20.17		30,529.74	30,549.93	20.19	
9	Total Bill	<u>36,624.57</u>	<u>36,907.24</u>	<u>282.67</u>	<u>0.8%</u>	<u>36,893.14</u>	<u>37,175.83</u>	<u>282.69</u>	<u>0.8%</u>
10	Impacts for Customer Notices - Sales (line 10)			282.67				282.69	
11	Impacts for Customer Notices - Direct Purchase (line 3 + line 4 + line 5)			282.67				282.69	

Notes:

(1) Excludes price adjustments.

(2) Gas Supply Commodity and Fuel Rates will be updated as part of the Board approved QRAM process.

UNION GAS LIMITED
Northern & Eastern Operations Area
General Service Customer Bill Impacts

Line No.	Particulars	(Northern) Rate 10 - Commercial (Annual Consumption of 93,000 m ³)				(Eastern) Rate 10 - Commercial (Annual Consumption of 93,000 m ³)			
		EB-2005-0520 Approved 01-Jan-07 Total Bill (\$ (1) (a)	EB-2007-0606 Adjusted Calculation 01-Jan-08 Total Bill (\$ (1) (b)	Impact (\$) (c)=(b)-(a)	Percent Change (%) (d) = (c) / (a)	EB-2005-0520 Approved 01-Jan-07 Total Bill (\$ (1) (e)	EB-2007-0606 Adjusted Calculation 01-Jan-08 Total Bill (\$ (1) (f)	Impact (\$) (g) = (f)-(e)	Percent Change (%) (h) = (g) / (e)
	<u>Delivery Charges</u>								
1	Monthly Charge	840.00	860.33	20.33		840.00	860.33	20.33	
2	Delivery Commodity Charge	5,517.44	5,759.34	241.90		5,532.69	5,775.27	242.58	
3	Total Delivery Charge	6,357.44	6,619.67	262.23	4.1%	6,372.69	6,635.60	262.91	4.1%
	<u>Supply Charges</u>								
4	Transportation to Union	3,131.31	3,131.31	-		3,620.22	3,620.22	-	
5	Storage Service	1,497.95	1,524.45	26.50		1,788.86	1,820.57	31.71	
6	Subtotal	4,629.26	4,655.76	26.50		5,409.08	5,440.79	31.71	
7	Commodity & Fuel (2)	27,168.73	27,168.73	-		27,455.74	27,455.74	-	
8	Total Gas Supply Charge	31,797.99	31,824.49	26.50		32,864.82	32,896.53	31.71	
9	Total Bill	38,155.43	38,444.16	288.73	0.8%	39,237.51	39,532.13	294.62	0.8%
10	Impacts for Customer Notices - Sales (line 10)			288.73				294.62	
11	Impacts for Customer Notices - Direct Purchase (line 3 + line 4 + line 5)			288.73				294.62	

Notes:

(1) Excludes price adjustments.

(2) Gas Supply Commodity and Fuel Rates will be updated as part of the Board approved QRAM process.

UNION GAS LIMITED
Southern Operations Area
General Service Customer Bill Impacts

Line No.	Particulars	Rate M1 - Residential (Annual Consumption of 45,000 m ³)			
		EB-2005-0520 Approved 01-Jan-07 Total Bill (\$) (1)	EB-2007-0606 Adjusted Calculation 01-Jan-08 Total Bill (\$) (1)	Impact (\$) (c) = (b) - (a)	Percent Change (%) (d) = (c) / (a)
		(a)	(b)	(c) = (b) - (a)	(d) = (c) / (a)
	<u>Delivery Charges</u>				
1	Monthly Charge	192.00	196.65	4.65	
2	Delivery Commodity Charge	1,970.60	2,198.11	227.51	
3	Storage Service	418.91	463.05	44.14	
4	Total Delivery Charge	2,581.51	2,857.80	276.29	10.7%
	<u>Supply Charges</u>				
5	Transportation to Union	1,497.92	1,497.92	-	
6	Gas Supply Commodity (2)	13,285.03	13,285.05	-	
7	Total Gas Supply Charge	14,782.95	14,782.96	-	
8	Total Bill	17,364.46	17,640.76	276.29	1.6%
9	Impacts for Customer Notices - Sales (line 8)			276.29	
10	Impacts for Customer Notices - Direct Purchase (line 4)			276.29	

Notes:

(1) Excludes price adjustments.

(2) Gas Supply Commodity and Fuel Rates will be updated as part of the Board approved QRAM process.

UNION GAS LIMITED
Southern Operations Area
General Service Customer Bill Impacts

Line No.	Particulars	Rate M2 - Industrial (Annual Consumption of 60,000 m ³)			
		EB-2005-0520 Approved 01-Jan-07 Total Bill (\$ (1) (a)	EB-2007-0606 Adjusted Calculation 01-Jan-08 Total Bill (\$ (1) (b)	Impact (\$) (c) = (b) - (a)	Percent Change (%) (d) = (c) / (a)
	<u>Delivery Charges</u>				
1	Monthly Charge	192.00	860.33	668.33	
2	Delivery Commodity Charge	2,584.67	2,267.79	(316.88)	
3	Storage Service	558.54	454.08	(104.46)	
4	Total Delivery Charge	3,335.21	3,582.20	246.99	7.4%
	<u>Supply Charges</u>				
5	Transportation to Union	1,997.23	1,997.23	-	
6	Gas Supply Commodity (2)	17,713.38	17,713.40	-	
7	Total Gas Supply Charge	19,710.61	19,710.63	-	
8	Total Bill	23,045.82	23,292.83	246.99	1.1%
9	Impacts for Customer Notices - Sales (line 8)			246.99	
10	Impacts for Customer Notices - Direct Purchase (line 4)			246.99	

Notes:

(1) Excludes price adjustments.

(2) Gas Supply Commodity and Fuel Rates will be updated as part of the Board approved QRAM process.

UNION GAS LIMITED
Southern Operations Area
General Service Customer Bill Impacts

		Rate M2 - Industrial (Annual Consumption of 73,000 m ³)			
Line No.	Particulars	EB-2005-0520 Approved 01-Jan-07 Total Bill (\$ (1) (a)	EB-2007-0606 Proposed 01-Jan-08 Total Bill (\$ (1) (b)	Impact (\$) (c) = (b) - (a)	Percent Change (%) (d) = (c) / (a)
	<u>Delivery Charges</u>				
1	Monthly Charge	192.00	840.00	648.00	
2	Delivery Commodity Charge	2,584.67	2,276.12	(308.55)	
3	Storage Service	558.54	454.08	(104.46)	
4	Total Delivery Charge	3,335.21	3,570.20	234.99	7.0%
	<u>Supply Charges</u>				
5	Transportation to Union	1,997.23	1,997.23	-	
6	Gas Supply Commodity (2)	17,713.38	17,713.40	-	
7	Total Gas Supply Charge	19,710.61	19,710.63	-	
8	Total Bill	23,045.82	23,280.83	234.99	1.0%
9	Impacts for Customer Notices - Sales (line 8)			234.99	
10	Impacts for Customer Notices - Direct Purchase (line 4)			234.99	

Notes:

(1) Excludes price adjustments.

(2) Gas Supply Commodity and Fuel Rates will be updated as part of the Board approved QRAM process.

UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

[C23.52, Attachment] Please provide a calculation of the impact on the forecasts in the attachment of the change in the CDN:US\$ exchange rate from the 10% discount assumption used to the current level, parity. If possible, please provide the same forecasts, but with the revised exchange rate.

The forecast is prepared in Canadian dollars including some operating expenses that are sourced in U.S. currency. The expenses sourced in U.S. currency are estimated to be less than \$10 million. The effect of changing the exchange rate conversion factor from a discount of 10% to parity would be less than \$1 million.

Union does not have a method to estimate the impact changes in exchange rates have on throughput and revenue, for the contract market. The estimated impact of a 10% change in exchange rate is less than \$400,000 for the general service market.

Question: October 3, 2007
Answer: October 11, 2007
Docket: EB-2007-0606 / EB-2007-0615

UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

[C23.51] Please provide the monthly volume profiles used in calculating each of the examples. Please provide the full calculations of all of the numbers in the response, in Excel format.

Please see attached.

Question: October 3, 2007
Answer: October 11, 2007
Docket: EB-2007-0606 / EB-2007-0615

Union South - Rate M2

Residential Customer

Annual Volume (m3):

3,064

Monthly Volume Distribution
Allocation of Annual Volume

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
17.50%	18.30%	15.10%	9.10%	5.20%	2.90%	2.20%	2.10%	2.20%	4.80%	7.20%	13.40%	100.00%
536	561	463	279	159	89	67	64	67	147	221	411	3,064

VOLUMES

Monthly Blocks

First	1,400	536	561	463	279	159	89	67	64	67	147	221	411	3,064
Next	4,600	-	-	-	-	-	-	-	-	-	-	-	-	-
Next	124,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Next	270,000	-	-	-	-	-	-	-	-	-	-	-	-	-
All over	400,000	-	-	-	-	-	-	-	-	-	-	-	-	-
		536	561	463	279	159	89	67	64	67	147	221	411	3,064

RATES (\$ / m3)

Monthly Charge

\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00
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Delivery Rates by Block

First	1,400	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161
Next	4,600	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013
Next	124,000	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092
Next	270,000	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735
All over	400,000	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296

Prospective Recovery / Delivery
Temporary Charge / (Credit)

0.000000	-	-	-	-	-	-	-	-	-	-	-	-	-
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Storage Services
Temporary Charge / (Credit)

0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544
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Gas Supply Charges

Commodity & Fuel
Prospective Recovery / Commodity & Fuel
Temporary Charge / (Credit)
Transportation
Total Monthly Supply Charges

0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725
-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702
0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427

MONTHLY BILL

Monthly Charge

\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 168.00
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Delivery Commodity Charge

First	1,400	30.11	31.49	25.98	15.66	8.95	4.99	3.79	3.61	3.79	8.26	12.39	23.06	172.08
Next	4,600	-	-	-	-	-	-	-	-	-	-	-	-	-
Next	124,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Next	270,000	-	-	-	-	-	-	-	-	-	-	-	-	-
All over	400,000	-	-	-	-	-	-	-	-	-	-	-	-	-
		30.11	31.49	25.98	15.66	8.95	4.99	3.79	3.61	3.79	8.26	12.39	23.06	172.08

Prospective Recovery / Delivery
Temporary Charge / (Credit)

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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Storage Services
Temporary Charge / (Credit)

5.12	5.35	4.42	2.66	1.52	0.85	0.64	0.61	0.64	1.40	2.11	3.92	29.24	-	-
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Gas Supply Charges

Commodity & Fuel
Prospective Recovery / Commodity & Fuel
Temporary Charge / (Credit)
Transportation
Gas Supply Charges

223.45	233.66	192.80	116.19	66.40	37.03	28.09	26.81	28.09	61.29	91.93	171.10	1,276.84	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.14	20.02	16.52	9.95	5.69	3.17	2.41	2.30	2.41	5.25	7.88	14.66	109.40	-	-
242.59	253.68	209.32	126.14	72.09	40.20	30.50	29.11	30.50	66.54	99.81	185.76	1,386.24	-	-

Total Monthly Bill	291.82	304.52	253.72	158.46	96.56	60.04	48.93	47.33	48.93	90.20	128.31	226.74	1,755.56	
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Total Delivery Bill	49.23	50.84	44.40	32.32	24.47	19.84	18.43	18.22	18.43	23.66	28.50	40.98	369.32	
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Total Gas Supply Bill	242.59	253.68	209.32	126.14	72.09	40.20	30.50	29.11	30.50	66.54	99.81	185.76	1,386.24	
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Price
(cents/m3)
57.2963

12.0535

45.2428

Union South - Rate M2

Residential Customer

Annual Volume (m3): **3,064**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Monthly Volume Distribution	17.50%	18.30%	15.10%	9.10%	5.20%	2.90%	2.20%	2.10%	2.20%	4.80%	7.20%	13.40%	100.00%
Allocation of Annual Volume	536	561	463	279	159	89	67	64	67	147	221	411	3,064

VOLUMES

Monthly Blocks

First	1,400	536	561	463	279	159	89	67	64	67	147	221	411	3,064
Next	4,600	-	-	-	-	-	-	-	-	-	-	-	-	-
Next	124,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Next	270,000	-	-	-	-	-	-	-	-	-	-	-	-	-
All over	400,000	-	-	-	-	-	-	-	-	-	-	-	-	-
		536	561	463	279	159	89	67	64	67	147	221	411	3,064

RATES (\$ / m3)

Monthly Charge \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00

Delivery Rates by Block

First	1,400	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701
Next	4,600	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427
Next	124,000	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859
Next	270,000	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743
All over	400,000	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978

Prospective Recovery / Delivery Temporary Charge / (Credit) (0.000502) (0.000502) (0.000502) (0.000502) (0.000502) (0.000502) (0.000502) (0.000502) (0.000502) (0.000502) (0.000502) (0.000502) (0.000502) (0.000502)

Storage Services Temporary Charge / (Credit) 0.009309 0.009309 0.009309 0.009309 0.009309 0.009309 0.009309 0.009309 0.009309 0.009309 0.009309 0.009309 0.009309 0.009309

Gas Supply Charges

Commodity & Fuel	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739
Prospective Recovery / Commodity & Fuel Temporary Charge / (Credit)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)
Transportation	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830
Total Monthly Supply Charges	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841

MONTHLY BILL

Monthly Charge \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 16.00 \$ 192.00

Delivery Commodity Charge

First	1,400	27.72	28.99	23.92	14.42	8.24	4.59	3.49	3.33	3.49	7.60	11.41	21.23	158.41
Next	4,600	-	-	-	-	-	-	-	-	-	-	-	-	-
Next	124,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Next	270,000	-	-	-	-	-	-	-	-	-	-	-	-	-
All over	400,000	-	-	-	-	-	-	-	-	-	-	-	-	-
		27.72	28.99	23.92	14.42	8.24	4.59	3.49	3.33	3.49	7.60	11.41	21.23	158.43

Prospective Recovery / Delivery Temporary Charge / (Credit) (0.27) (0.28) (0.23) (0.14) (0.08) (0.04) (0.03) (0.03) (0.03) (0.03) (0.07) (0.11) (0.21) (1.52)

Storage Services Temporary Charge / (Credit) 4.99 5.22 4.31 2.60 1.48 0.83 0.63 0.60 0.63 1.37 2.05 3.82 28.53

Gas Supply Charges

Commodity & Fuel	178.41	186.57	153.95	92.77	53.02	29.57	22.43	21.41	22.43	48.94	73.41	136.62	1,019.53
Prospective Recovery / Commodity & Fuel Temporary Charge / (Credit)	(30.95)	(32.37)	(26.71)	(16.10)	(9.20)	(5.13)	(3.89)	(3.71)	(3.89)	(8.49)	(12.74)	(23.70)	(176.88)
Transportation	19.21	20.09	16.58	9.99	5.71	3.18	2.42	2.31	2.42	5.27	7.90	14.71	109.79
Gas Supply Charges	166.67	174.29	143.82	86.66	49.53	27.62	20.96	20.01	20.96	45.72	68.57	127.63	952.44

Total Monthly Bill 215.11 224.22 187.82 119.54 75.17 49.00 41.05 39.91 41.05 70.62 97.92 168.47 1,329.88

Total Delivery Bill 48.44 49.93 44.00 32.88 25.64 21.38 20.09 19.90 20.09 24.90 29.35 40.84 377.44

Total Gas Supply Bill 166.67 174.29 143.82 86.66 49.53 27.62 20.96 20.01 20.96 45.72 68.57 127.63 952.44

Price
(cents/m3)
43.4034

12.3185

31.0849

Union South - Rate M2

Commercial Customer

Annual Volume (m3):

598,568

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Monthly Volume Distribution	17.40%	17.90%	14.40%	9.30%	5.30%	3.00%	1.80%	2.00%	2.20%	5.50%	8.00%	13.20%	100.00%
Allocation of Annual Volume	104,151	107,144	86,194	55,667	31,724	17,957	10,774	11,971	13,169	32,921	47,885	79,011	598,568

VOLUMES

Monthly Blocks

First	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	16,800
Next	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	55,200
Next	124,000	98,151	101,144	80,194	49,667	25,724	11,957	4,774	5,971	7,169	26,921	41,885	526,568
Next	270,000	-	-	-	-	-	-	-	-	-	-	-	-
All over	400,000	-	-	-	-	-	-	-	-	-	-	-	-
	104,151	107,144	86,194	55,667	31,724	17,957	10,774	11,971	13,169	32,921	47,885	79,011	598,568

RATES (\$ / m3)

Monthly Charge

\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00
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Delivery Rates by Block

First	1,400	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161
Next	4,600	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013
Next	124,000	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092
Next	270,000	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735
All over	400,000	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296

Prospective Recovery / Delivery

Temporary Charge / (Credit)

0.000000	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-

Storage Services

Temporary Charge / (Credit)

0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544
-	-	-	-	-	-	-	-	-	-	-	-	-	-

Gas Supply Charges

Commodity & Fuel

Prospective Recovery / Commodity & Fuel

Temporary Charge / (Credit)

Transportation

Total Monthly Supply Charges

0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725
-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702
0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427

MONTHLY BILL

Monthly Charge

\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 168.00
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Delivery Commodity Charge

First	1,400	78.63	78.63	78.63	78.63	78.63	78.63	78.63	78.63	78.63	78.63	78.63	943.50
Next	4,600	184.06	184.06	184.06	184.06	184.06	184.06	184.06	184.06	184.06	184.06	184.06	2,208.72
Next	124,000	2,757.25	2,841.33	2,252.80	1,395.24	722.64	335.90	134.12	167.75	201.38	756.27	1,176.65	14,792.35
Next	270,000	-	-	-	-	-	-	-	-	-	-	-	-
All over	400,000	-	-	-	-	-	-	-	-	-	-	-	-
	3,019.94	3,104.01	2,515.49	1,657.93	985.33	598.58	396.80	430.43	464.06	1,018.96	1,439.33	2,313.71	17,944.57

Prospective Recovery / Delivery

Temporary Charge / (Credit)

-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-

Storage Services

Temporary Charge / (Credit)

994.02	1,022.58	822.63	531.28	302.77	171.38	102.83	114.25	125.68	314.20	457.02	754.08	5,712.72	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-

Gas Supply Charges

Commodity & Fuel

Prospective Recovery / Commodity & Fuel

Temporary Charge / (Credit)

Transportation

Gas Supply Charges

43,402.25	44,649.45	35,919.11	23,197.76	13,220.23	7,483.15	4,489.89	4,988.76	5,487.64	13,719.10	19,955.06	32,925.85	249,438.25	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
3,718.39	3,825.24	3,077.29	1,987.42	1,132.61	641.10	384.66	427.40	470.14	1,175.35	1,709.61	2,820.85	21,370.06	-
47,120.64	48,474.69	38,996.40	25,185.18	14,352.84	8,124.25	4,874.55	5,416.16	5,957.78	14,894.45	21,664.67	35,746.70	270,808.31	-

Total Monthly Bill	51,148.60	52,615.28	42,348.52	27,388.39	15,654.94	8,908.21	5,388.18	5,974.84	6,561.52	16,241.61	23,575.02	38,828.49	294,633.60
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Price
(cents/m3)
49.2231

Total Delivery Bill	4,027.96	4,140.59	3,352.12	2,203.21	1,302.10	783.96	513.63	558.68	603.74	1,347.16	1,910.35	3,081.79	23,825.29
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3.9804

Total Gas Supply Bill	47,120.64	48,474.69	38,996.40	25,185.18	14,352.84	8,124.25	4,874.55	5,416.16	5,957.78	14,894.45	21,664.67	35,746.70	270,808.31
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45.2427

Union South - Rate M2

Exhibit JTA.51

Attachment

Page 4 of 12

Commercial Customer

Annual Volume (m3):

598,568

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Monthly Volume Distribution	17.40%	17.90%	14.40%	9.30%	5.30%	3.00%	1.80%	2.00%	2.20%	5.50%	8.00%	13.20%	100.00%
Allocation of Annual Volume	104,151	107,144	86,194	55,667	31,724	17,957	10,774	11,971	13,169	32,921	47,885	79,011	598,568

VOLUMES

Monthly Blocks

First	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	16,800
Next	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	55,200
Next	124,000	98,151	101,144	80,194	49,667	25,724	11,957	4,774	5,971	7,169	26,921	41,885	526,568
Next	270,000	-	-	-	-	-	-	-	-	-	-	-	-
All over	400,000	-	-	-	-	-	-	-	-	-	-	-	-
	104,151	107,144	86,194	55,667	31,724	17,957	10,774	11,971	13,169	32,921	47,885	79,011	598,568

RATES (\$ / m3)

Monthly Charge

\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00
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Delivery Rates by Block

First	1,400	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701
Next	4,600	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427
Next	124,000	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859
Next	270,000	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743
All over	400,000	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978

Prospective Recovery / Delivery

Temporary Charge / (Credit)

(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)
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Storage Services

Temporary Charge / (Credit)

0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309
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Gas Supply Charges

Commodity & Fuel

Prospective Recovery / Commodity & Fuel

Temporary Charge / (Credit)

Transportation

Total Monthly Supply Charges

0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739
(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)
0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830
0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841

MONTHLY BILL

Monthly Charge

\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 16.00	\$ 192.00
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Delivery Commodity Charge

First	1,400	72.38	72.38	72.38	72.38	72.38	72.38	72.38	72.38	72.38	72.38	72.38	72.38	868.58
Next	4,600	190.56	190.56	190.56	190.56	190.56	190.56	190.56	190.56	190.56	190.56	190.56	190.56	2,286.77
Next	124,000	3,028.84	3,121.19	2,474.70	1,532.67	793.82	368.98	147.33	184.27	221.21	830.76	1,292.54	2,253.05	16,249.36
Next	270,000	-	-	-	-	-	-	-	-	-	-	-	-	-
All over	400,000	-	-	-	-	-	-	-	-	-	-	-	-	-
		3,291.78	3,384.14	2,737.65	1,795.61	1,056.77	631.93	410.27	447.22	484.16	1,093.71	1,555.49	2,515.99	19,404.72

Prospective Recovery / Delivery

Temporary Charge / (Credit)

(52.28)	(53.79)	(43.27)	(27.94)	(15.93)	(9.01)	(5.41)	(6.01)	(6.61)	(6.61)	(16.53)	(24.04)	(39.66)	(300.48)
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Storage Services

Temporary Charge / (Credit)

969.54	997.40	802.38	518.20	295.32	167.16	100.30	111.44	122.59	306.46	445.77	735.51	5,572.07	-
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Gas Supply Charges

Commodity & Fuel

Prospective Recovery / Commodity & Fuel

Temporary Charge / (Credit)

Transportation

Gas Supply Charges

34,655.04	35,650.88	28,680.04	18,522.52	10,555.85	5,975.01	3,585.00	3,983.34	4,381.67	10,954.18	15,933.35	26,290.03	199,166.91	-
(6,012.42)	(6,185.19)	(4,975.80)	(3,213.53)	(1,831.37)	(1,036.62)	(621.97)	(691.08)	(760.19)	(1,900.48)	(2,764.33)	(4,561.15)	(34,554.13)	-
3,731.72	3,838.96	3,088.32	1,994.54	1,136.67	643.40	386.04	428.93	471.83	1,179.57	1,715.74	2,830.96	21,446.68	-
32,374.34	33,304.65	26,792.56	17,303.53	9,861.15	5,581.79	3,349.07	3,721.19	4,093.31	10,233.27	14,884.76	24,559.84	186,059.46	-

Price
(cents/m3)

Total Monthly Bill	36,599.38	37,648.40	30,305.32	19,605.40	11,213.31	6,387.87	3,870.23	4,289.84	4,709.45	11,632.91	16,877.98	27,787.68	210,927.77	35.2387
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Total Delivery Bill	4,225.04	4,343.75	3,512.76	2,301.87	1,352.16	806.08	521.16	568.65	616.14	1,399.64	1,993.22	3,227.84	24,868.31	4.1546
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Total Gas Supply Bill	32,374.34	33,304.65	26,792.56	17,303.53	9,861.15	5,581.79	3,349.07	3,721.19	4,093.31	10,233.27	14,884.76	24,559.84	186,059.46	31.0841
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Union South - Rate M2

Commercial Customer														
Annual Volume (m3):		598,568												
Monthly Volume Distribution		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Allocation of Annual Volume		13.80%	14.10%	12.20%	7.80%	5.50%	4.70%	3.60%	3.90%	4.70%	8.40%	9.80%	11.50%	100.00%
		82,602	84,398	73,025	46,688	32,921	28,133	21,548	23,344	28,133	50,280	58,660	68,835	598,568

VOLUMESMonthly Blocks

First	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	16,800
Next	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	55,200
Next	124,000	76,602	78,398	67,025	40,688	26,921	22,133	15,548	17,344	22,133	44,280	52,660	62,835	526,568
Next	270,000	-	-	-	-	-	-	-	-	-	-	-	-	-
All over	400,000	-	-	-	-	-	-	-	-	-	-	-	-	-
		82,602	84,398	73,025	46,688	32,921	28,133	21,548	23,344	28,133	50,280	58,660	68,835	598,568

RATES (\$ / m3)

Monthly Charge	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00
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Delivery Rates by Block

First	1,400	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161	0.056161
Next	4,600	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013	0.040013
Next	124,000	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092	0.028092
Next	270,000	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735	0.020735
All over	400,000	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296	0.019296

Prospective Recovery / Delivery
Temporary Charge / (Credit)

0.000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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Storage Services
Temporary Charge / (Credit)

0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544	0.009544
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Gas Supply Charges

Commodity & Fuel	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725	0.416725
Prospective Recovery / Commodity & Fuel	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Temporary Charge / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702	0.035702
Total Monthly Supply Charges	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427	0.452427

MONTHLY BILL

Monthly Charge	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 14.00	\$ 168.00
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Delivery Commodity Charge

First	1,400	78.63	78.63	78.63	78.63	78.63	78.63	78.63	78.63	78.63	78.63	78.63	78.63	943.50
Next	4,600	184.06	184.06	184.06	184.06	184.06	184.06	184.06	184.06	184.06	184.06	184.06	184.06	2,208.72
Next	124,000	2,151.91	2,202.36	1,882.87	1,143.02	756.27	621.75	436.79	487.23	621.75	1,243.91	1,479.32	1,765.17	14,792.35
Next	270,000	-	-	-	-	-	-	-	-	-	-	-	-	-
All over	400,000	-	-	-	-	-	-	-	-	-	-	-	-	-
		2,414.60	2,465.04	2,145.56	1,405.70	1,018.96	884.44	699.47	749.92	884.44	1,506.59	1,742.00	2,027.86	17,944.58

Prospective Recovery / Delivery
Temporary Charge / (Credit)

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Storage Services
Temporary Charge / (Credit)

788.36	805.50	696.95	445.59	314.20	268.50	205.66	222.80	268.50	479.87	559.85	656.96	5,712.74	-	-
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Gas Supply Charges

Commodity & Fuel	34,422.48	35,170.79	30,431.47	19,456.18	13,719.10	11,723.60	8,979.78	9,728.09	11,723.60	20,952.81	24,444.95	28,685.40	249,438.25	-
Prospective Recovery / Commodity & Fuel	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Temporary Charge / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation	2,949.07	3,013.18	2,607.15	1,666.87	1,175.35	1,004.39	769.32	833.43	1,004.39	1,795.09	2,094.27	2,457.56	21,370.07	-
Gas Supply Charges	37,371.55	38,183.97	33,038.62	21,123.05	14,894.45	12,727.99	9,749.10	10,561.52	12,727.99	22,747.90	26,539.22	31,142.96	270,808.32	-

Price
(cents/m3)

Total Monthly Bill	40,588.51	41,468.51	35,895.13	22,988.34	16,241.61	13,894.93	10,668.23	11,548.24	13,894.93	24,748.36	28,855.07	33,841.78	294,633.64	49.2231
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Total Delivery Bill	3,216.96	3,284.54	2,856.51	1,865.29	1,347.16	1,166.94	919.13	986.72	1,166.94	2,000.46	2,315.85	2,698.82	23,825.32	3.9804
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Total Gas Supply Bill	37,371.55	38,183.97	33,038.62	21,123.05	14,894.45	12,727.99	9,749.10	10,561.52	12,727.99	22,747.90	26,539.22	31,142.96	270,808.32	45.2427
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Union South - Rate M2

Commercial Customer														
Annual Volume (m3):		598,568												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Monthly Volume Distribution		13.80%	14.10%	12.20%	7.80%	5.50%	4.70%	3.60%	3.90%	4.70%	8.40%	9.80%	11.50%	100.00%
Allocation of Annual Volume		82,602	84,398	73,025	46,688	32,921	28,133	21,548	23,344	28,133	50,280	58,660	68,835	598,568

VOLUMES

<u>Monthly Blocks</u>														
First	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	16,800
Next	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	55,200
Next	124,000	76,602	78,398	67,025	40,688	26,921	22,133	15,548	17,344	22,133	44,280	52,660	62,835	526,568
Next	270,000	-	-	-	-	-	-	-	-	-	-	-	-	-
All over	400,000	-	-	-	-	-	-	-	-	-	-	-	-	-
		82,602	84,398	73,025	46,688	32,921	28,133	21,548	23,344	28,133	50,280	58,660	68,835	598,568

RATES (\$ / m3)

Monthly Charge	\$	16.00	\$	16.00	\$	16.00	\$	16.00	\$	16.00	\$	16.00	\$	16.00	\$	16.00	\$	16.00
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Delivery Rates by Block

First	1,400	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701	0.051701
Next	4,600	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427	0.041427
Next	124,000	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859	0.030859
Next	270,000	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743	0.024743
All over	400,000	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978	0.022978

Prospective Recovery / Delivery	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)	(0.000502)
Temporary Charge / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Storage Services	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309	0.009309
Temporary Charge / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Gas Supply Charges

Commodity & Fuel	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739	0.332739
Prospective Recovery / Commodity & Fuel	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)	(0.057728)
Temporary Charge / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830	0.035830
Total Monthly Supply Charges	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841	0.310841

MONTHLY BILL

Monthly Charge	\$	16.00	\$	16.00	\$	16.00	\$	16.00	\$	16.00	\$	16.00	\$	16.00	\$	16.00	\$	192.00
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Delivery Commodity Charge

Delivery commodity charge														
First	1,400	72.38	72.38	72.38	72.38	72.38	72.38	72.38	72.38	72.38	72.38	72.38	72.38	868.58
Next	4,600	190.56	190.56	190.56	190.56	190.56	190.56	190.56	190.56	190.56	190.56	190.56	190.56	2,286.77
Next	124,000	2,363.87	2,419.29	2,068.33	1,255.60	830.76	682.99	479.81	535.22	682.99	1,366.43	1,625.02	1,939.04	16,249.36
Next	270,000	-	-	-	-	-	-	-	-	-	-	-	-	-
All over	400,000	-	-	-	-	-	-	-	-	-	-	-	-	-
		2,626.82	2,682.23	2,331.28	1,518.55	1,093.71	945.94	742.76	798.17	945.94	1,629.37	1,887.97	2,201.98	19,404.72

Prospective Recovery / Delivery	(41.47)	(42.37)	(36.66)	(23.44)	(16.53)	(14.12)	(10.82)	(11.72)	(14.12)	(25.24)	(29.45)	(34.56)	(300.50)	(300.50)
Temporary Charge / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Storage Services	768.95	785.66	679.79	434.62	306.46	261.89	200.59	217.31	261.89	468.05	546.06	640.79	5,572.06	5,572.06
Temporary Charge / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Gas Supply Charges

Commodity & Fuel	27,485.03	28,082.54	24,298.37	15,535.02	10,954.18	9,360.85	7,170.01	7,767.51	9,360.85	16,730.02	19,518.36	22,904.20	199,166.94	199,166.94
Prospective Recovery / Commodity & Fuel	(4,768.47)	(4,872.13)	(4,215.60)	(2,695.22)	(1,900.48)	(1,624.04)	(1,243.95)	(1,347.61)	(1,624.04)	(2,902.55)	(3,386.30)	(3,973.73)	(34,554.12)	(34,554.12)
Temporary Charge / (Credit)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation	2,959.64	3,023.98	2,616.50	1,672.84	1,179.57	1,007.99	772.08	836.42	1,007.99	1,801.52	2,101.78	2,466.37	21,446.68	21,446.68
Gas Supply Charges	25,676.20	26,234.39	22,699.27	14,512.64	10,233.27	8,744.80	6,698.14	7,256.32	8,744.80	15,628.99	18,233.84	21,396.84	186,059.50	186,059.50

Total Monthly Bill	29,046.50	29,675.91	25,689.68	16,458.37	11,632.91	9,954.51	7,646.67	8,276.08	9,954.51	17,717.17	20,654.42	24,221.05	210,927.78	210,927.78	Price (cents/m3) 35.2387
Total Delivery Bill	3,370.30	3,441.52	2,990.41	1,945.73	1,399.64	1,209.71	948.53	1,019.76	1,209.71	2,088.18	2,420.58	2,824.21	24,868.28	24,868.28	4.1546
Total Gas Supply Bill	25,676.20	26,234.39	22,699.27	14,512.64	10,233.27	8,744.80	6,698.14	7,256.32	8,744.80	15,628.99	18,233.84	21,396.84	186,059.50	186,059.50	31.0841

Monthly Demand Charge	10,903	10,903	10,903	10,903	10,903	10,903	10,903	10,903	10,903	10,903	10,903	10,903	130,841
Monthly Commodity	10,613	9,492	8,071	6,393	4,191	3,211	1,586	2,861	3,093	6,086	8,132	8,870	72,599
Monthly Gas Commodity	745,018	598,445	487,372	386,084	253,115	193,887	95,792	172,763	186,783	367,537	491,054	535,617	<u>4,513,466</u>
													4,716,906

M4 Calculation - 75% Load Factor

[illegible]

[illegible]

Union South - Rate M7 Interruptible Calculation with 75% Load Factor

	<u>2007</u>	<u>2006</u>
Monthly Demand Charge		
Monthly Delivery Commodity	1.1741	1.2803
Gas Commodity	34.8248	45.2427

M7 Interruptible Calculation - 75% Load Factor

	Volume	69,832,850	6,228,113	5,734,922	6,242,867	5,256,485	4,683,204	3,639,916	4,097,276	7,513,781	7,271,401	7,482,166	6,070,039	5,612,679	
	Days/Month		31	28	31	30	31	30	31	31	30	31	30	31	
	CD Calculation (take highest for monthly CD)		200,907	204,819	201,383	175,216	151,071	121,331	132,170	242,380	242,380	241,360	202,335	181,054	
	Demand Charge		242,380												
	<u>2007</u>														
	Monthly Demand Charge		-	-	-	-	-	-	-	-	-	-	-	-	-
	Monthly Delivery Commodity		73,124	67,334	73,297	61,716	54,985	42,736	48,106	88,219	85,374	87,848	71,268	65,898	819,907
	Monthly Gas Commodity		2,168,928	1,997,175	2,174,066	1,830,560	1,630,916	1,267,593	1,426,868	2,616,659	2,532,251	2,605,649	2,113,879	1,954,604	24,319,150 25,139,058
	<u>2006</u>														
	Monthly Demand Charge		-	-	-	-	-	-	-	-	-	-	-	-	-
	Monthly Commodity		79,739	73,424	79,927	67,299	59,959	46,602	52,457	96,199	93,096	95,794	77,715	71,859	894,070
	Monthly Gas Commodity		2,817,767	2,594,634	2,824,441	2,378,176	2,118,808	1,646,796	1,853,718	3,399,437	3,289,778	3,385,134	2,746,250	2,539,327	31,594,267 32,488,337

Gas Commodity	34.8248	45.2427
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Annual Volume	9,976,121		
Load Factor	50%		
Contracted Demand	54,664		
Step Block Price @ CD		1.5843	1.5907
Days Use Discount	183		
First 75 days	75	0.0530	0.0530
All over 75	108	0.2290	0.2290
Total Discount		0.2820	0.2820
Net Price for all volumes		1.3023	1.3087

[illegible]

[illegible]

UNION GAS LIMITED

Undertaking of Union Gas
To Enbridge Gas Distribution ("EGD")

Provide history of M12 rate increases since 2000.

History of M12 Rate Changes

Line No.	Year (a)	Firm Transportation	
		Dawn to Parkway (\$/GJ) (b)	Dawn to Parkway (\$/GJ) (c)
1	2000	2.554	2.128
2	2001	2.563	2.135
3	2002	2.547	2.122
4	2003	2.490	2.074
5	2004	2.334	1.968
6	2007	2.392	2.036

Question: October 3, 2007
Answer: October 11, 2007
Docket: EB-2007-0606 / EB-2007-0615

UNION GAS LIMITED

Undertaking of Union Gas
To School Energy Coalition ("SEC")

Replicate two spreadsheets provided to Enbridge yesterday with Union's numbers.

Attached are the two requested spreadsheets. The residential and small commercial customer analysis provided are both highly sensitive to the capital cost estimates used. As highlighted on the attached, Union has used \$1,301 as the cost to attach a single residential customer and \$3,789 for a small volume commercial customer. The \$1,301 is referenced in Union's interrogatory response provided at Exhibit C10.1 c) filed as part of this proceeding; while the \$3,789 is referenced in Union's interrogatory response provided at Exhibit J21.27 e) iii) of Union's 2007 rates proceeding (EB-2005-0520). These capital cost estimates exclude certain items including:

- 1) reinforcement cost associated with each service,
- 2) meter and regulatory costs, and
- 3) overhead allocation.

As stated in Union's interrogatory response provided at Exhibit C20.2, Union does not track each customer addition individually. Rather, Union applies a discounted cashflow analysis on a portfolio basis.

Question: October 3, 2007
Answer: October 11, 2007
Docket: EB-2007-0606 / EB-2007-0615

Capital Cost	\$ 1,301.00
Annual Consumption (m3)	2,600
Annual margin	\$ 221.09
Operating Costs	\$ 63.50
Prop/Cap Taxes	\$ 13.01

Total Annual Expense	\$ 76.51
Depreciation Rate	2.50%
Annual Depreciation	\$ 32.53
Debt Interest	5.58%
Allowed Return on Equity	8.54%

Equity Capital	36.00%
Tax Rate	36.12%
Inflation	2.04%
Price Cap Escalator	2.42%
CCA Rate	4.00%

(\$ unless otherwise specified)	Year	1	2	3	4	5	6	7	8	9	10	Totals
Revenue:												
Total revenue		221.09	226.44	231.92	237.53	243.28	249.17	255.20	261.38	267.70	274.18	2,467.90
Operating Expenses:												
O&M expenses		63.50	64.79	66.12	67.47	68.84	70.25	71.68	73.14	74.63	76.16	696.57
Depreciation expense		32.53	32.53	32.53	32.53	32.53	32.53	32.53	32.53	32.53	32.53	325.25
Property taxes		13.01	13.01	13.01	13.01	13.01	13.01	13.01	13.01	13.01	13.01	130.10
Capital taxes		3.63	3.49	3.35	3.21	3.09	2.96	2.84	2.73	2.62	2.52	30.45
Total operating expenses		112.67	113.82	115.00	116.22	117.46	118.74	120.06	121.41	122.79	124.21	1,182.37
Income before interest and income taxes		108.42	112.62	116.92	121.32	125.82	130.43	135.14	139.97	144.91	149.97	1,285.52
Interest expense		45.43	44.79	43.63	42.47	41.30	40.14	38.98	37.82	36.66	35.50	406.73
Income before income taxes		62.99	67.84	73.30	78.85	84.51	90.28	96.16	102.15	108.25	114.47	878.80
Income taxes		25.10	17.83	20.54	23.25	25.98	28.71	31.46	34.22	37.01	39.81	283.91
Net Income		37.89	50.01	52.76	55.60	58.54	61.57	64.70	67.92	71.24	74.66	594.89
Return on Average Common Equity		8.27%	11.08%	12.00%	12.99%	14.06%	15.21%	16.46%	17.81%	19.28%	20.86%	
Sufficiency/(Deficiency)		(1.91)	17.93	23.80	29.81	35.97	42.28	48.74	55.35	62.12	69.04	
Cumulative NPV		(1174.33)	(1071.61)	(972.34)	(876.37)	(783.54)	(693.72)	(606.76)	(522.54)	(440.95)	(361.87)	
Calculation of CCA and UCC												
Total Opening UCC		-	1,274.98	1,223.98	1,175.02	1,128.02	1,082.90	1,039.58	998.00	958.08	919.76	
Total Additions		1,301.00	-	-	-	-	-	-	-	-	-	
Total CCA		(26.02)	(51.00)	(48.96)	(47.00)	(45.12)	(43.32)	(41.58)	(39.92)	(38.32)	(36.79)	
Total Closing UCC		1,274.98	1,223.98	1,175.02	1,128.02	1,082.90	1,039.58	998.00	958.08	919.76	882.97	
Cumulative CCA		(26.02)	(77.02)	(125.98)	(172.98)	(218.10)	(261.42)	(303.00)	(342.92)	(381.24)	(418.03)	
Calculation of Income Tax												
Gross Margin		221.09	226.44	231.92	237.53	243.28	249.17	255.20	261.38	267.70	274.18	
O&M Expense		(63.50)	(64.79)	(66.12)	(67.47)	(68.84)	(70.25)	(71.68)	(73.14)	(74.63)	(76.16)	
Property (Municipal) Tax		(13.01)	(13.01)	(13.01)	(13.01)	(13.01)	(13.01)	(13.01)	(13.01)	(13.01)	(13.01)	
Capital Tax		(3.63)	(3.49)	(3.35)	(3.21)	(3.09)	(2.96)	(2.84)	(2.73)	(2.62)	(2.52)	
Depreciation & Amortization		(32.53)	(32.53)	(32.53)	(32.53)	(32.53)	(32.53)	(32.53)	(32.53)	(32.53)	(32.53)	
Net Income Before Taxes (NIBT)		108.42	112.62	116.92	121.32	125.82	130.43	135.14	139.97	144.91	149.97	
Add Back Depreciation		32.53	32.53	32.53	32.53	32.53	32.53	32.53	32.53	32.53	32.53	
Less: CCA		(26.02)	(51.00)	(48.96)	(47.00)	(45.12)	(43.32)	(41.58)	(39.92)	(38.32)	(36.79)	
Adjusted NIBT		114.93	94.15	100.49	106.84	113.22	119.63	126.08	132.57	139.11	145.71	
Computed Tax		41.51	34.01	36.30	38.59	40.90	43.21	45.54	47.89	50.25	52.63	
Rate Base Calculation												
Capital - before depreciation		-	1,268.48	1,235.95	1,203.43	1,170.90	1,138.38	1,105.85	1,073.33	1,040.80	1,008.28	
Additions		1,301.00	-	-	-	-	-	-	-	-	-	
Depreciation		(32.53)	(32.53)	(32.53)	(32.53)	(32.53)	(32.53)	(32.53)	(32.53)	(32.53)	(32.53)	
Capital - closing		1,268.48	1,235.95	1,203.43	1,170.90	1,138.38	1,105.85	1,073.33	1,040.80	1,008.28	975.75	
Working Capital		3.71	3.76	3.81	3.87	3.92	3.98	4.04	4.10	4.16	4.22	
Rate Base		1,272.18	1,239.71	1,207.24	1,174.77	1,142.30	1,109.83	1,077.36	1,044.90	1,012.43	979.97	
Average Rate Base		1,272.18	1,254.09	1,221.59	1,189.10	1,156.60	1,124.10	1,091.61	1,059.11	1,026.62	994.12	

Capital Cost	\$ 3,789.00
Annual Consumption (m3)	17,000
Annual margin	\$ 616.84
Operating Costs	\$ 111.30
Prop/Cap Taxes	\$ 37.89

Total Annual Expense	\$ 149.19
Depreciation Rate	2.50%
Annual Depreciation	\$ 94.73
Debt Interest	5.58%
Allowed Return on Equity	8.54%

Equity Capital	36.00%
Tax Rate	36.12%
Inflation	2.04%
Price Cap Escalator	2.42%
CCA Rate	4.00%

(\$ unless otherwise specified)	Year	1	2	3	4	5	6	7	8	9	10	Totals
Revenue:												
Total revenue		616.84	631.77	647.06	662.72	678.76	695.18	712.01	729.24	746.88	764.96	6,885.41
Operating Expenses:												
O&M expenses		111.30	113.57	115.88	118.25	120.66	123.12	125.63	128.19	130.81	133.48	1,220.88
Depreciation expense		94.73	94.73	94.73	94.73	94.73	94.73	94.73	94.73	94.73	94.73	947.25
Property taxes		37.89	37.89	37.89	37.89	37.89	37.89	37.89	37.89	37.89	37.89	378.90
Capital taxes		10.58	10.16	9.75	9.36	8.99	8.63	8.28	7.95	7.63	7.33	88.67
Total operating expenses		254.49	256.34	258.25	260.22	262.26	264.36	266.53	268.76	271.06	273.42	2,635.70
Income before interest and income taxes		362.35	375.43	388.81	402.49	416.49	430.82	445.48	460.47	475.82	491.54	4,249.71
Interest expense		132.36	130.45	127.07	123.69	120.31	116.93	113.55	110.17	106.79	103.41	1,184.72
Income before income taxes		229.99	244.98	261.74	278.80	296.18	313.89	331.93	350.31	369.04	388.13	3,064.98
Income taxes		89.92	69.05	77.25	85.48	93.73	102.02	110.36	118.75	127.20	135.71	1,009.47
Net Income		140.08	175.93	184.49	193.33	202.45	211.86	221.56	231.55	241.84	252.42	2,055.51
Return on Average Common Equity		10.50%	13.38%	14.40%	15.50%	16.69%	17.97%	19.36%	20.85%	22.47%	24.22%	
Sufficiency/(Deficiency)		40.91	99.59	117.55	135.95	154.79	174.08	193.82	214.02	234.67	255.80	
Cumulative NPV		(3392.28)	(3065.03)	(2748.80)	(2443.08)	(2147.39)	(1861.30)	(1584.37)	(1316.23)	(1056.51)	(804.86)	
Calculation of CCA and UCC												
Total Opening UCC		-	3,713.22	3,564.69	3,422.10	3,285.22	3,153.81	3,027.66	2,906.55	2,790.29	2,678.68	
Total Additions		3,789.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total CCA		-75.78	-148.53	-142.59	-136.88	-131.41	-126.15	-121.11	-116.26	-111.61	-107.15	
Total Closing UCC		3,713.22	3,564.69	3,422.10	3,285.22	3,153.81	3,027.66	2,906.55	2,790.29	2,678.68	2,571.53	
Cumulative CCA		-75.78	-224.31	-366.90	-503.78	-635.19	-761.34	-882.45	-998.71	-1,110.32	-1,217.47	
Calculation of Income Tax												
Gross Margin		616.84	631.77	647.06	662.72	678.76	695.18	712.01	729.24	746.88	764.96	
O&M Expense		-111.30	-113.57	-115.88	-118.25	-120.66	-123.12	-125.63	-128.19	-130.81	-133.48	
Property (Municipal) Tax		-37.89	-37.89	-37.89	-37.89	-37.89	-37.89	-37.89	-37.89	-37.89	-37.89	
Capital Tax		-10.58	-10.16	-9.75	-9.36	-8.99	-8.63	-8.28	-7.95	-7.63	-7.33	
Depreciation & Amortization		-94.73	-94.73	-94.73	-94.73	-94.73	-94.73	-94.73	-94.73	-94.73	-94.73	
Net Income Before Taxes (NIBT)		362.35	375.43	388.81	402.49	416.49	430.82	445.48	460.47	475.82	491.54	
Add Back Depreciation		94.73	94.73	94.73	94.73	94.73	94.73	94.73	94.73	94.73	94.73	
Less: CCA		(75.78)	(148.53)	(142.59)	(136.88)	(131.41)	(126.15)	(121.11)	(116.26)	(111.61)	(107.15)	
Adjusted NIBT		381.30	321.63	340.95	360.33	379.81	399.39	419.09	438.94	458.94	479.11	
Computed Tax		137.72	116.17	123.15	130.15	137.19	144.26	151.38	158.54	165.77	173.06	
Rate Base Calculation												
Capital - before depreciation		-	3,694	3,600	3,505	3,410	3,315	3,221	3,126	3,031	2,936	
Additions		3,789	-	-	-	-	-	-	-	-	-	
Depreciation		(94.7)	(94.7)	(94.7)	(94.7)	(94.7)	(94.7)	(94.7)	(94.7)	(94.7)	(94.7)	
Capital - closing		3,694	3,600	3,505	3,410	3,315	3,221	3,126	3,031	2,936	2,842	
Working Capital		12	12	12	12	12	12	13	13	13	13	
Rate Base		3,706	3,612	3,517	3,422	3,328	3,233	3,138	3,044	2,949	2,855	
Average Rate Base		3,706	3,653	3,558	3,464	3,369	3,274	3,180	3,085	2,990	2,896	

b) Please complete the following table.

<i>All Other Service Group (total minus summation of all the individual rate classes within the general service group)</i>					
<i>Years</i>	<i>Annual Normalized Volume (m³)</i>	<i>If no DSM - Annual Normalized Volume (m³)</i>	<i>Number of Customers</i>	<i>Average Use per Customer (m³)</i>	<i>If no DSM - Average Use per Customer (m³)</i>
2000					
2001					
2002					
2003					
2004					
2005					
2006					

c) Please confirm that the annual normalized volume does not include the volumetric losses captured in the LRAM?

Response:

a)

<i>General Service Group (summation of all of the individual rate classes within the general service group (M2, Rate 01, and 10))</i>					
<i>Year</i>	<i>Annual Normalized Volume (10⁶m³)</i>	<i>If no DSM - Annual Normalized Volume (10⁶m³)</i>	<i>Number of Customers</i>	<i>Average Use per Customer (m³)</i>	<i>If no DSM Average use per Customer (m³)</i>
2000	5,252	5,317	1,122,887	4,677	4,735
2001	5,201	5,290	1,145,740	4,539	4,617
2002	5,380	5,490	1,170,662	4,596	4,690
2003	5,249	5,373	1,194,499	4,394	4,498
2004	5,286	5,469	1,223,672	4,320	4,469
2005	5,333	5,509	1,247,919	4,274	4,414
2006	5,371	5,599	1,267,387	4,238	4,418

As the information provided to PEG was in 10⁶m³ (See Table 11b in Peg's study), the information has been reproduced here in the same manner.

b) Union does not calculate normalized average consumption for any rate classes other than general service rate classes (i.e. M2, Rate 01, Rate 10).

Question: August 20, 2007

Answer: October 11, 2007

Docket: EB-2007-0606 / EB-2007-0615

UNION GAS LIMITED

Answer to Interrogatory from
Board Staff

Reference: Union Ex. B, Tab 1, page 37 of 48
Issue 5.1 - Union Ex. B, Tab 1, page 37 of 48

Question:

- a) Please list Union's 2007 deferral and variance accounts that have been approved by the Board.
- b) Please indicate those accounts that Union is seeking approval to continue during the IR plan.

Response:

a) and b)

Account Name	Account Number	Proposed Changes (if any)
<i>Gas Cost Deferral Accounts</i>		
Heating Value	179-89	Close effective January 1, 2008
TCPL Tolls and Fuel	179-100	Continue
North Purchase Gas Variance Account	179-105	Modify effective January 1, 2008 to capture heat value variances from North gas sales rates
South Purchase Gas Variance Account	179-106	Modify effective January 1, 2008 to capture heat value variances from South gas sales rates
Spot Gas Variance Account	179-107	Continue
Unabsorbed Demand Cost Variance Account	179-108	Continue
Inventory Revaluation Account	179-109	Continue
<i>Storage and Transportation Deferral Accounts</i>		
Transportation and Exchange Services	179-69	Close effective January 1, 2008
Short Term Storage & Exchange Balancing	179-70	Continue
Long Term Peak Storage	179-72	Continue
Other Storage & Transportation Services	179-73	Close effective January 1, 2008
Other Direct Purchase Services	179-74	Close effective January 1, 2008

Question: August 20, 2007

Answer: October 11, 2007

Docket: EB-2007-0606 / EB-2007-0615

<i>Other Deferral Accounts</i>		
Deferred Customer Rebates/Charges	179-26	Continue
Lost Revenue Adjustment Mechanism	179-75	Continue
Intra Period WACOG Changes	179-102	Continue
Unbundled Services Unauthorized Storage Overrun	179-103	Continue
Demand Side Management Variance Account	179-111	Continue
Gas Distribution Access Rule ("GDAR") Costs	179-112	Continue
Late Payment Penalty Litigation	179-113	Continue
Shared Savings Mechanism Variance Account	179-115	Continue
Carbon Dioxide Offset Credits Deferral Account	179-117	Continue

Please refer to Exhibit D1, Tab 5 from the EB-2005-0520 rate case for a description of the deferral accounts included in the above table.

The accounting orders for each of the deferral accounts were included as Appendix F to the EB-2005-0520 Final Rate Order.

Consistent with our efforts to reduce the number of deferral accounts, Union proposes to eliminate the Heating Value deferral account and capture any heat value variances in the North and South Purchase Gas Variance Accounts.

documents in Union's possession, including internal e-mail communications, and PowerPoint presentations, etc., containing estimates of this incremental revenue potential, for each of the years 2008 to 2012 inclusive.

- (e) *Please quantify the extent to which Union has opportunities to reduce costs included in its 2007 base year revenue requirement, and produce any and all documents in its possession, including internal e-mail communications and PowerPoint presentations, etc., containing estimates of this cost reduction potential for each of the years 2008 to 2012 inclusive.*
-

Response:

- a) A 1% price cap will provide the following approximate incremental revenues:

2008	\$9 million
2009	\$18 million
2010	\$27 million

- b) The 1% price cap will accommodate approximate capital spending as follows:

2008	\$262 million
2009	\$268 million
2010	\$300 million

- c) Union does not have any documents of the nature requested other than the forecast provided in the interrogatory response provided at Exhibit C23.52.
- d) See response provided in part c).
- e) Please see interrogatory response provided at C32.4.

Question: August 23, 2007

Answer: October 11, 2007

Docket: EB-2007-0606 / EB-2007-0615