

IN THE MATTER of the *Ontario Energy Board Act 1998*, Schedule B to the *Energy Competition Act*, 1998, S.O. 1998, c.15;

AND IN THE MATTER OF an Application by Union Gas Limited for an Order or Orders approving just and reasonable rates and other service charges for the sale, distribution, transmission and storage of natural gas, effective on January 1, 2014.

INTERROGATORIES
OF THE
SCHOOL ENERGY COALITION

1. [Exhibit A, Tab 5, Tables 1 and 2] Please confirm that the attached spreadsheets correctly present and calculate the results of Tables 1 and 2 on pages 5 and 6 of the exhibit, with the rates assumed to be based on the fixed charges proposed by Union, and 100% recovery of allocated costs. (A copy in Excel format has been sent to the parties.)
2. [A/5, Table 8, p. 18] With respect to Table 8:
 - a. Please confirm that the load factor for M1, without the customers in the 5000-50000 range, would be 27.3%.
 - b. Please confirm that the customers in 5000–50000 range would have a load factor of 30.3%, higher than either M1 or M2 customers. (54,239 customers with 805,082 volumes and 7,279 design day volumes – all from Table 1).
 - c. Please confirm that customers in the 5000-50000 range will effectively subsidize the other customers in either M1 or M2, depending on what class they are in, because they use gas at a higher load factor.
 - d. Please provide any reports, studies, end-use analyses or other such materials that would assist the Board in understanding why the load factor for the southern general service customers in the 5000-50000 range is higher than either the smaller or the larger customers.
 - e. Please confirm that the load factor for 01, without the customers in the 5000-50000 range, would be 27.5%.

- f. Please confirm that the customers in 5000–50000 range would have a load factor of 26.4%, lower than either M1 or M2 customers. (19,309 customers with 240,474 volumes and 2,495 design day volumes – all from Table 1).
 - g. Please confirm that customers in the 5000-50000 range will effectively be subsidized by the other customers in either 01 or 10, depending on what class they are in, because they use gas at a lower load factor.
 - h. Please provide any reports, studies, end-use analyses or other such materials that would assist the Board in understanding why the load factor for the northern general service customers in the 5000-50000 range is lower than either the smaller or the larger customers.
3. [A5] With respect to the allocation of demand-related costs:
- a. Please confirm that demand-related costs are, in general, allocated to rate classes on the assumption that they do not exhibit any economies of scale. That is, the demand-related costs per unit of demand to serve a larger customer are the same as the demand-related costs per unit of demand to serve a smaller customer, assuming the same load factor. By way of example, the demand-related costs allocated to a customer with a design day demand of 1000 m³ will be approximately ten times the demand-related costs allocated to a customer with a design day demand of 100 m³.
 - b. Please provide any reports, studies, or other such materials in the possession of the Company that consider whether there are no economies of scale in demand-related costs.
 - c. Please confirm that, if volumetric rates are set to recover 100% of demand-related costs, the volumetric unit rates should vary inversely and linearly with load factor, and should not vary with volume.

Respectfully submitted on behalf of the School Energy Coalition this 14th day of January, 2014

Jay Shepherd

Volume Breakpoint Analysis - M1/M2							
Item		Volume Range					Totals
		0-5000	0-50000	5000-50000	5000+	50000+	
a		b	c	d	e	f	g
# of Customers	1	1,004,661	1,058,900	54,239	61,027	6,788	1,065,688
Total Volumes (10 ³ m ³)	2	2,134,461	2,939,543	805,082	1,780,653	975,571	3,915,114
Average Volumes (m ³)	3	2,125	2,776	14,843	29,178	143,720	3,674
Costs							
Customer-related	4	\$240,100,000	\$269,100,000	\$29,000,000	\$37,600,000	\$8,700,000	\$277,800,000
Demand-related	5	\$72,700,000	\$97,400,000	\$24,600,000	\$57,900,000	\$33,300,000	\$130,600,000
Commodity Related	6	-\$600,000	\$300,000	\$900,000	\$2,800,000	\$1,900,000	\$2,200,000
Total	7	\$312,200,000	\$366,800,000	\$54,500,000	\$98,300,000	\$43,900,000	\$410,600,000
Costs per Customer							
Customer-related	8	\$238.99	\$254.13	\$534.67	\$616.12	\$1,281.67	\$260.68
Demand-related	9	\$72.36	\$91.98	\$453.55	\$948.76	\$4,905.72	\$122.55
Commodity Related	10	-\$0.60	\$0.28	\$16.59	\$45.88	\$279.91	\$2.06
Total	11	\$310.75	\$346.40	\$1,004.81	\$1,610.76	\$6,467.30	\$385.29
Costs per M³							
Customer-related	12	\$0.112487	\$0.091545	\$0.036021	\$0.021116	\$0.008918	\$0.070956
Demand-related	13	\$0.034060	\$0.033134	\$0.030556	\$0.032516	\$0.034134	\$0.033358
Commodity Related	14	-\$0.000281	\$0.000102	\$0.001118	\$0.001572	\$0.001948	\$0.000562
Total	15	\$0.146266	\$0.124781	\$0.067695	\$0.055204	\$0.044999	\$0.104876
Current Rates @ 100% Recovery							
Fixed Charge Revenues	16		\$266,842,800			\$5,701,920	\$272,544,720
Variable Charge Revenues	17		\$99,957,200			\$38,198,080	\$138,155,280
Total Revenues	18		\$366,800,000			\$43,900,000	\$410,700,000
Avg. Fixed Charge/Customer	19		\$252.00			\$840.00	\$255.75
Avg. Variable Charge/Customer	20		\$94.40			\$5,627.30	\$129.64
Avg. Fixed Charge/m ³	21		\$0.090777			\$0.005845	\$0.069613
Avg. Variable Charge/m ³	22		\$0.034004			\$0.039155	\$0.035288
Avg. Bill	23		\$346.40			\$6,467.30	\$385.38
Adjusted Rates @ 100% Recovery							
Fixed Charge Revenues	24	\$253,174,572			\$23,434,368		\$276,608,940
Variable Charge Revenues	25	\$59,025,428			\$74,865,632		\$133,891,060
Total Revenues	26	\$312,200,000			\$98,300,000		\$410,500,000
Avg. Fixed Charge	27	\$252.00			\$384.00		\$259.56
Avg. Variable Charge	28	\$58.75			\$1,226.76		\$125.64
Avg. Fixed Charge/m ³	29	\$0.118613			\$0.013161		\$0.070652
Avg. Variable Charge/m ³	30	\$0.027654			\$0.042044		\$0.034199
Avg. Bill	31	\$310.75			\$1,610.76		\$385.20

Source: Exhibit A5, Tables 1 and 2

Volume Breakpoint Analysis - 01/10							
Item		Volume Range					Totals
		0-5000	0-50000	5000-50000	5000+	50000+	
a		b	c	d	e	f	g
# of Customers	1	300,669	319,978	19,309	21,361	2,052	322,030
Total Volumes (10 ³ m ³)	2	643,947	884,421	240,474	563,361	322,887	1,207,308
Average Volumes (m ³)	3	2,142	2,764	12,454	26,373	157,352	3,749
Costs							
Customer-related	4	\$106,400,000	\$114,100,000	\$7,700,000	\$12,500,000	\$4,800,000	\$118,900,000
Demand-related	5	\$32,800,000	\$45,800,000	\$13,000,000	\$27,700,000	\$14,700,000	\$60,500,000
Commodity Related	6	\$600,000	\$700,000	\$100,000	\$400,000	\$200,000	\$900,000
Total	7	\$139,800,000	\$160,600,000	\$20,800,000	\$40,600,000	\$19,700,000	\$180,300,000
Costs per Customer							
Customer-related	8	\$353.88	\$356.59	\$398.78	\$585.18	\$2,339.18	\$369.22
Demand-related	9	\$109.09	\$143.13	\$673.26	\$1,296.76	\$7,163.74	\$187.87
Commodity Related	10	\$2.00	\$2.19	\$5.18	\$18.73	\$97.47	\$2.79
Total	11	\$464.96	\$501.91	\$1,077.22	\$1,900.66	\$9,600.39	\$559.89
Costs per M³							
Customer-related	12	\$0.165231	\$0.129011	\$0.032020	\$0.022188	\$0.014866	\$0.098484
Demand-related	13	\$0.050936	\$0.051785	\$0.054060	\$0.049169	\$0.045527	\$0.050111
Commodity Related	14	\$0.000932	\$0.000791	\$0.000416	\$0.000710	\$0.000619	\$0.000745
Total	15	\$0.217099	\$0.181588	\$0.086496	\$0.072067	\$0.061012	\$0.149341
Current Rates @ 100% Recovery							
Fixed Charge Revenues	16		\$80,634,456			\$1,723,680	\$82,358,136
Variable Charge Revenues	17		\$79,965,544			\$17,976,320	\$97,941,864
Total Revenues	18		\$160,600,000			\$19,700,000	\$180,300,000
Avg. Fixed Charge/Customer	19		\$252.00			\$840.00	\$255.75
Avg. Variable Charge/Customer	20		\$249.91			\$8,760.39	\$304.14
Avg. Fixed Charge/m ³	21		\$0.091172			\$0.005338	\$0.068216
Avg. Variable Charge/m ³	22		\$0.090416			\$0.055674	\$0.081124
Avg. Bill	23		\$501.91			\$9,600.39	\$559.89
Adjusted Rates @ 100% Recovery							
Fixed Charge Revenues	24	\$75,768,588			\$8,202,624		\$83,971,212
Variable Charge Revenues	25	\$64,031,412			\$32,397,376		\$96,428,788
Total Revenues	26	\$139,800,000			\$40,600,000		\$180,400,000
Avg. Fixed Charge	27	\$252.00			\$384.00		\$260.76
Avg. Variable Charge	28	\$212.96			\$1,516.66		\$299.44
Avg. Fixed Charge/m ³	29	\$0.117663			\$0.014560		\$0.069552
Avg. Variable Charge/m ³	30	\$0.099436			\$0.057507		\$0.079871
Avg. Bill	31	\$464.96			\$1,900.66		\$560.20

Source: Exhibit A5, Tables 1 and 2