Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/18

Issues 1.1 - What are the implications associated with a revenue cap, a price cap, and other alternative multi-year incentive ratemaking frameworks?

Question:

Please confirm that, in Union's view, a price cap plan "will provide greater incentives for the utility to implement productivity improvements" than a revenue cap plan.

Response:

Confirmed. Please see interrogatory response provided at Exhibit C1.1.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/19

Issues 1.1 - What are the implications associated with a revenue cap, a price cap, and other alternative multi-year incentive ratemaking frameworks?

Question:

Union notes that revenue cap plans have more volatile rates as compared to price cap plans. Please describe, and if possible quantify, the impact of Y factors and Z factors on the stability and predictability of rates during a price cap plan.

Response:

Y factors are pass-through adjustments related to items that are outside of the incentive regulation framework and Z factors are non-routine adjustments within the incentive regulation framework. In its proposal, Union has attempted to include as much of the delivered cost of gas as possible within the incentive regulation framework (the primary exclusions are upstream costs). It would also be Union's expectation that there would be very few Z factors.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/47

Issues 1.2 – What is the method for incentive regulation that the board should approve for each utility?

Question:

Please describe how the nature of the price cap formula relates to Union's willingness to "continue to be an active community participant". Please describe what aspects of a price cap formula would, if implemented, cause Union to stop its community activities.

Response:

If the parameters of the incentive regulation plan are not fair and balanced, this will stress the organization in ways that may make it difficult for Union to continue to be an active community participant. For example, resources or funding to support certain community events or functions could be reduced or not available in order for the company to meet the financial implications of the price cap framework.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/1

Issues 1.2 – What is the method for incentive regulation that the board should approve for each utility?

Question:

What would be the impact on Union and its customers if the Board ordered a revenue cap per customer plan for Union similar to that proposed by Enbridge in its application?

Response:

Union is not proposing a revenue cap. Union has not analyzed the implications of adopting a revenue cap such as the one proposed by Enbridge.

In Union's view, a price cap plan is superior to a revenue cap plan with respect to a number of objectives such as alignment, comprehensiveness, rate predictability & stability, and simplicity. As such, the impact on Union and its customers would include poorer performance with respect to the referenced objectives.

Please also see interrogatory response provided at Exhibit C1.1.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/12

Issues 1.3 - Should weather risk continue to be borne by the shareholders, and if so what other adjustments should be made?

Question:

Please provide a detailed breakdown, by year from 2008 through 2012, of the projected impacts of the change to weather methodology proposed. Please show how each annual impact calculation was derived.

Response:

Union is proposing to adjust 2007 base rates by approximately \$7 million to reflect the impact of the 20 year trend weather normalization method. This will impact 2008 rates. Please see interrogatory response provided at Exhibit C3/C/16/C33.3.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/13

Issues 1.3 - Should weather risk continue to be borne by the shareholders, and if so what other adjustments should be made?

Question:

Please provide all data behind Chart 1, in Excel format.

Response:

	<u>Actual</u>		
	HDD	30 YR Avg	20 YRDT
Jan-75	705.0	4,206.5	4,639.1
Feb-75	642.9	4,206.5	4,637.5
Mar-75	658.1	4,206.5	4,635.9
Apr-75	461.0	4,206.5	4,634.3
May-75	108.3	4,206.5	4,632.7
Jun-75	40.4	4,206.5	4,631.1
Jul-75	12.8	4,206.5	4,629.6
Aug-75	22.6	4,206.5	4,628.0
Sep-75	154.4	4,206.5	4,626.4
Oct-75	257.6	4,206.5	4,624.8
Nov-75	372.3	4,206.5	4,623.2
Dec-75	714.0	4,206.5	4,621.6
Jan-76	877.9	4,206.5	4,620.0
Feb-76	621.3	4,206.5	4,618.4
Mar-76	559.0	4,206.5	4,616.8
Apr-76	329.7	4,206.5	4,615.2

May 76	222.0	4 206 E	A 642 6
May-76	222.0	4,206.5	4,613.6
Jun-76	26.3	4,206.5	4,612.0
Jul-76	15.1	4,206.5	4,610.5
Aug-76	38.2	4,206.5	4,608.9
Sep-76	135.8	4,206.5	4,607.3
Oct-76	366.5	4,206.5	4,605.7
Nov-76	571.6	4,206.5	4,604.1
Dec-76	839.2	4,206.5	4,602.5
Jan-77	956.7	4,206.5	4,600.9
Feb-77	694.8	4,206.5	4,599.3
Mar-77	500.8	4,206.5	4,597.7
Apr-77	322.9	4,206.5	4,596.1
May-77	125.6	4,206.5	4,594.5
Jun-77	76.5	4,206.5	4,592.9
Jul-77	15.2	4,206.5	4,591.4
Aug-77	49.1	4,206.5	4,589.8
Sep-77	96.1	4,206.5	4,588.2
Oct-77	305.1	4,206.5	4,586.6
Nov-77	443.3	4,206.5	4,585.0
Dec-77	721.6	4,206.5	4,583.4
Jan-78	862.7	4,206.5	4,581.8
Feb-78	820.7	4,206.5	4,580.2
Mar-78	702.9	4,206.5	4,578.6
Apr-78	412.8	4,206.5	4,577.0
May-78	172.3	4,206.5	4,575.4
Jun-78	74.3	4,206.5	4,573.8
Jul-78	24.6	4,206.5	4,572.3

Aug-7 8	18.2	4,206.5	4,570.7
Sep-78	111.0	4,206.5	4,569.1
Oct-78	314.5	4,206.5	4,567.5
Nov-78	480.6	4,206.5	4,565.9
Dec-78	692.9	4,206.5	4,564.3
Jan-79	856.8	4,206.5	4,562.7
Feb-79	839.8	4,206.5	4,561.1
Mar-79	540.7	4,206.5	4,559.5
Apr-79	398.0	4,206.5	4,557.9
May-79	212.3	4,206.5	4,556.3
Jun-79	65.8	4,206.5	4,554.7
Jul-79	18.1	4,206.5	4,553.2
Aug-79	39.0	4,206.5	4,551.6
Sep-79	112.2	4,206.5	4,550.0
Oct-79	313.3	4,206.5	4,548.4
Nov-79	454.3	4,206.5	4,546.8
Dec-79	621.4	4,206.5	4,545.2
Jan-80	762.3	4,206.5	4,543.6
Feb-80	775.2	4,206.5	4,542.0
Mar-80	645.2	4,206.5	4,540.4
Apr-80	360.9	4,206.5	4,538.8
May-80	151.6	4,206.5	4,537.2
Jun-80	103.1	4,206.5	4,535.6
Jul-80	9.8	4,206.5	4,534.1
Aug-80	7.9	4,206.5	4,532.5
Sep-80	119.7	4,206.5	4,530.9
Oct-80	365.2	4,206.5	4,529.3

Nov-80	504.6	4,206.5	4,527.7
Dec-80	783.0	4,206.5	4,526.1
Jan-81	870.4	4,206.5	4,524.5
Feb-81	602.7	4,206.5	4,522.9
Mar-81	567.1	4,206.5	4,521.3
Apr-81	334.7	4,206.5	4,519.7
May-81	203.9	4,206.5	4,518.1
Jun-81	47.4	4,206.5	4,516.5
Jul-81	12.5	4,206.5	4,515.0
Aug-81	14.9	4,206.5	4,513.4
Sep-81	137.4	4,206.5	4,511.8
Oct-81	355.1	4,206.5	4,510.2
Nov-81	447.7	4,206.5	4,508.6
Dec-81	677.9	4,206.5	4,507.0
Jan-82	914.5	4,206.5	4,505.4
Feb-82	743.7	4,206.5	4,503.8
Mar-82	633.2	4,206.5	4,502.2
Apr-82	427.3	4,206.5	4,500.6
May-82	104.9	4,206.5	4,499.0
Jun-82	86.5	4,206.5	4,497.4
Jul-82	12.1	4,206.5	4,495.9
Aug-82	57.0	4,206.5	4,494.3
Sep-82	122.1	4,206.5	4,492.7
Oct-82	259.1	4,206.5	4,491.1
Nov-82	444.5	4,206.5	4,489.5
Dec-82	560.8	4,206.5	4,487.9
Jan-83	716.5	4,206.5	4,486.3

Feb-83	606.6	4,206.5	4,484.7
Mar-83	550.9	4,206.5	4,483.1
Apr-83	389.7	4,206.5	4,481.5
May-83	251.1	4,206.5	4,479.9
Jun-83	58.9	4,206.5	4,478.3
Jul-83	11.5	4,206.5	4,476.8
Aug-83	9.5	4,206.5	4,475.2
Sep-83	93.1	4,206.5	4,473.6
Oct-83	282.4	4,206.5	4,472.0
Nov-83	451.5	4,206.5	4,470.4
Dec-83	808.4	4,206.5	4,468.8
Jan-84	884.0	4,206.5	4,467.2
Feb-84	582.3	4,206.5	4,465.6
Mar-84	712.1	4,206.5	4,464.0
Apr-84	331.0	4,206.5	4,462.4
May-84	245.6	4,206.5	4,460.8
Jun-84	39.5	4,206.5	4,459.2
Jul-84	18.2	4,206.5	4,457.7
Aug-84	16.9	4,206.5	4,456.1
Sep-84	140.0	4,206.5	4,454.5
Oct-84	233.6	4,206.5	4,452.9
Nov-84	470.1	4,206.5	4,451.3
Dec-84	618.5	4,206.5	4,449.7
Jan-85	843.7	4,206.5	4,448.1
Feb-85	704.3	4,206.5	4,446.5
Mar-85	560.4	4,206.5	4,444.9
Apr-85	316.5	4,206.5	4,443.3

May-85	151.2	4,206.5	4,441.7
Jun-85	80.9	4,206.5	4,440.1
Jul-85	18.8	4,206.5	4,438.6
Aug-85	25.5	4,206.5	4,437.0
Sep-85	98.9	4,206.5	4,435.4
Oct-85	265.5	4,206.5	4,433.8
Nov-85	463.5	4,206.5	4,432.2
Dec-85	775.1	4,206.5	4,430.6
Jan-86	779.6	4,206.5	4,429.0
Feb-86	702.9	4,206.5	4,427.4
Mar-86	563.4	4,206.5	4,425.8
Apr-86	315.5	4,206.5	4,424.2
May-86	142.5	4,206.5	4,422.6
Jun-86	72.4	4,206.5	4,421.0
Jul-86	16.2	4,206.5	4,419.5
Aug-86	47.1	4,206.5	4,417.9
Sep-86	114.7	4,206.5	4,416.3
Oct-86	291.0	4,206.5	4,414.7
Nov-86	525.4	4,206.5	4,413.1
Dec-86	634.6	4,206.5	4,411.5
Jan-87	741.5	4,206.5	4,409.9
Feb-87	660.5	4,206.5	4,408.3
Mar-87	524.1	4,206.5	4,406.7
Apr-87	292.1	4,206.5	4,405.1
May-87	152.7	4,206.5	4,403.5
Jun-87	35.7	4,206.5	4,401.9
Jul-87	11.0	4,206.5	4,400.4

Aug-87	35.0	4,206.5	4,398.8
Sep-87	86.3	4,206.5	4,397.2
Oct-87	358.3	4,206.5	4,395.6
Nov-87	443.0	4,206.5	4,394.0
Dec-87	603.0	4,206.5	4,392.4
Jan-88	773.5	4,206.5	4,390.8
Feb-88	752.8	4,206.5	4,389.2
Mar-88	601.8	4,206.5	4,387.6
Apr-88	361.3	4,206.5	4,386.0
May-88	143.0	4,206.5	4,384.4
Jun-88	64.8	4,206.5	4,382.8
Jul-88	6.2	4,206.5	4,381.3
Aug-88	24.0	4,206.5	4,379.7
Sep-88	106.0	4,206.5	4,378.1
Oct-88	363.4	4,206.5	4,376.5
Nov-88	426.4	4,206.5	4,374.9
Dec-88	695.9	4,206.5	4,373.3
Jan-89	673.9	4,206.5	4,371.7
Feb-89	728.0	4,206.5	4,370.1
Mar-89	635.7	4,206.5	4,368.5
Apr-89	406.9	4,206.5	4,366.9
May-89	178.2	4,206.5	4,365.3
Jun-89	52.5	4,206.5	4,363.7
Jul-89	7.8	4,206.5	4,362.2
Aug-89	28.9	4,206.5	4,360.6
Sep-89	115.8	4,206.5	4,359.0
Oct-89	275.9	4,206.5	4,357.4

Nov-89	518.9	4,206.5	4,355.8
Dec-89	906.6	4,206.5	4,354.2
Jan-90	632.6	4,206.5	4,352.6
Feb-90	635.9	4,206.5	4,351.0
Mar-90	542.5	4,206.5	4,349.4
Apr-90	329.9	4,206.5	4,347.8
May-90	214.9	4,206.5	4,346.2
Jun-90	53.1	4,206.5	4,344.6
Jul-90	13.1	4,206.5	4,343.1
Aug-90	17.7	4,206.5	4,341.5
Sep-90	120.6	4,206.5	4,339.9
Oct-90	298.7	4,206.5	4,338.3
Nov-90	427.1	4,206.5	4,336.7
Dec-90	641.2	4,206.5	4,335.1
Jan-91	794.3	4,206.5	4,333.5
Feb-91	604.6	4,206.5	4,331.9
Mar-91	540.2	4,206.5	4,330.3
Apr-91	300.1	4,206.5	4,328.7
May-91	119.7	4,206.5	4,327.1
Jun-91	25.6	4,206.5	4,325.5
Jul-91	10.9	4,206.5	4,324.0
Aug-91	13.6	4,206.5	4,322.4
Sep-91	138.9	4,206.5	4,320.8
Oct-91	264.8	4,206.5	4,319.2
Nov-91	498.3	4,206.5	4,317.6
Dec-91	667.2	4,206.5	4,316.0
Jan-92	733.8	4,206.5	4,314.4

Feb-92	669.7	4,206.5	4,312.8
Mar-92	622.5	4,206.5	4,311.2
Apr-92	402.1	4,206.5	4,309.6
May-92	184.0	4,206.5	4,308.0
Jun-92	88.1	4,206.5	4,306.4
Jul-92	43.3	4,206.5	4,304.9
Aug-92	54.0	4,206.5	4,303.3
Sep-92	127.2	4,206.5	4,301.7
Oct-92	338.7	4,206.5	4,300.1
Nov-92	483.2	4,206.5	4,298.5
Dec-92	648.8	4,206.5	4,296.9
Jan-93	725.3	4,206.5	4,295.3
Feb-93	758.1	4,206.5	4,293.7
Mar-93	640.4	4,206.5	4,292.1
Apr-93	370.0	4,206.5	4,290.5
May-93	189.0	4,206.5	4,288.9
Jun-93	65.2	4,206.5	4,287.3
Jul-93	7.5	4,206.5	4,285.8
Aug-93	15.5	4,206.5	4,284.2
Sep-93	166.2	4,206.5	4,282.6
Oct-93	336.3	4,206.5	4,281.0
N ov-93	491.5	4,206.5	4,279.4
Dec-93	678.9	4,206.5	4,277.8
Jan-94	974.4	4,206.5	4,276.2
Feb-94	773.1	4,206.5	4,274.6
Mar-94	602.4	4,206.5	4,273.0
Apr-94	354.3	4,206.5	4,271.4

May-94	218.7	4,206.5	4,269.8
Jun-94	47.4	4,206.5	4,268.2
Jul-94	11.3	4,206.5	4,266.7
Aug-94	40.9	4,206.5	4,265.1
Sep-94	94.8	4,206.5	4,263.5
Oct-94	255.3	4,206.5	4,261.9
Nov-94	402.8	4,206.5	4,260.3
Dec-94	589.4	4,206.5	4,258.7
Jan-95	693.0	4,206.5	4,257.1
Feb-95	737.2	4,206.5	4,255.5
Mar-95	535.0	4,206.5	4,253.9
Apr-95	431.5	4,206.5	4,252.3
May-95	173.5	4,206.5	4,250.7
Jun-95	30.6	4,206.5	4,249.1
Jul-95	16.3	4,206.5	4,247.6
Aug-95	9.1	4,206.5	4,246.0
Sep-95	139.8	4,206.5	4,244.4
Oct-95	245.3	4,206.5	4,242.8
Nov-95	561.1	4,206.5	4,241.2
Dec-95	757.6	4,206.5	4,239.6
Jan-96	822.2	4,206.5	4,238.0
Feb-96	731.0	4,206.5	4,236.4
Mar-96	686.0	4,206.5	4,234.8
Apr-96	426.4	4,206.5	4,233.2
May-96	224.1	4,206.5	4,231.6
Jun-96	32.2	4,206.5	4,230.0
Jul-96	21.1	4,206.5	4,228.5

Aug- 9 6	12.0	4,206.5	4,226.9
Sep- 9 6	92.3	4,206.5	4,225.3
Oct-96	285.1	4,206.5	4,223.7
Nov-96	546.7	4,206.5	4,222.1
Dec-96	622.8	4,206.5	4,220.5
Jan-97	804.1	4,206.5	4,218.9
Feb-97	629.1	4,206.5	4,217.3
Mar-97	610.1	4,206.5	4,215.7
Apr-97	395.1	4,206.5	4,214.1
May-97	283.5	4,206.5	4,212.5
Jun-97	34.9	4,206.5	4,210.9
Jul-97	22.2	4,206.5	4,209.4
Aug-97	39.4	4,206.5	4,207.8
Sep-97	101.8	4,206.5	4,206.2
Oct-97	288.5	4,206.5	4,204.6
Nov-97	509.2	4,206.5	4,203.0
Dec-97	632.1	4,206.5	4,201.4
Jan-98	669.1	4,206.5	4,199.8
Feb-98	531.2	4,206.5	4,198.2
Mar-98	531.0	4,206.5	4,196.6
Apr-98	307.2	4,206.5	4,195.0
May-98	86.3	4,206.5	4,193.4
Jun-98	66.4	4,206.5	4,191.8
Jul-98	7.0	4,206.5	4,190.3
Aug-98	12.0	4,206.5	4,188.7
Sep-98	66.1	4,206.5	4,187.1
Oct-98	251.2	4,206.5	4,185.5

Nov-98	424.7	4,206.5	4,183.9
Dec-98	580.8	4,206.5	4,182.3
Jan-99	810.2	4,206.5	4,180.7
Feb-99	581.0	4,206.5	4,179.1
Mar-99	593.1	4,206.5	4,177.5
Apr-99	321.2	4,206.5	4,175.9
May-99	120.3	4,206.5	4,174.3
Jun-99	43.1	4,206.5	4,172.7
Jul-99	5.5	4,206.5	4,171.2
Aug-99	24.3	4,206.5	4,169.6
Sep-99	83.9	4,206.5	4,168.0
Oct-99	308.4	4,206.5	4,166.4
Nov-99	399.4	4,206.5	4,164.8
Dec-99	629.0	4,206.5	4,163.2
Jan-00	787.4	4,206.5	4,161.6
Feb-00	638.6	4,206.5	4,160.0
Mar-00	455.3	4,206.5	4,158.4
Apr-00	367.6	4,206.5	4,156.8
May-00	155.0	4,206.5	4,155.2
Jun-00	54.6	4,206.5	4,153.6
Jul-00	20.9	4,206.5	4,152.1
Aug-00	27.3	4,206.5	4,150.5
Sep-00	131.8	4,206.5	4,148.9
Oct-00	245.9	4,206.5	4,147.3
Nov-00	465.8	4,206.5	4,145.7
Dec-00	846.7	4,206.5	4,144.1
Jan-01	717.0	4,206.5	4,142.5

Feb-01	638.4	4,206.5	4,140.9
Mar-01	600.4	4,206.5	4,139.3
Apr-01	303.6	4,206.5	4,137.7
May-01	132.7	4,206.5	4,136.1
Jun-01	44.3	4,206.5	4,134.5
Jul-01	20.1	4,206.5	4,133.0
Aug-01	8.4	4,206.5	4,131.4
Sep-01	110.2	4,206.5	4,129.8
Oct-01	261.6	4,206.5	4,128.2
Nov-01	353.4	4,206.5	4,126.6
Dec-01	557.9	4,206.5	4,125.0
Jan-02	628.8	4,206.5	4,123.4
Feb-02	579.9	4,206.5	4,121.8
Mar-02	591.6	4,206.5	4,120.2
Apr-02	351.2	4,206.5	4,118.6
May-02	238.5	4,206.5	4,117.0
Jun-02	47.7	4,206.5	4,115.5
Jul-02	3.9	4,206.5	4,113.9
Aug-02	9.7	4,206.5	4,112.3
Sep-02	46.2	4,206.5	4,110.7
Oct-02	331.1	4,206.5	4,109.1
Nov-02	486.8	4,206.5	4,107.5
Dec-02	660.5	4,206.5	4,105.9
Jan-03	844.2	4,206.5	4,104.3
Feb-03	736.2	4,206.5	4,102.7
Mar-03	597.5	4,206.5	4,101.1
Apr-03	390.5	4,206.5	4,099.5

M ay-03	188.6	4,206.5	4,097.9
J un-03	54.0	4,206.5	4,096.4
Jul-03	9.7	4,206.5	4,094.8
Aug-03	10.5	4,206.5	4,093.2
Sep-03	82.6	4,206.5	4,091.6
Oct-03	301.8	4,206.5	4,090.0
N ov-03	418.4	4,206.5	4,088.4
Dec-03	612.1	4,206.5	4,086.8
Jan-04	889.4	4,206.5	4,085.2
Feb-04	660.1	4,206.5	4,083.6
M ar-04	524.2	4,206.5	4,082.0
Apr-04	347.3	4,206.5	4,080.4
M ay-04	175.7	4,206.5	4,078.8
Jun-04	63.1	4,206.5	4,077.3
Jul-04	14.2	4,206.5	4,075.7
Aug-04	39.8	4,206.5	4,074.1
Sep-04	56.1	4,206.5	4,072.5
Oct-04	256.5	4,206.5	4,070.9
Nov-04	414.0	4,206.5	4,069.3
Dec-04	685.9	4,206.5	4,067.7
Jan-05	808.6	4,206.5	4,066.1
Feb-05	634.6	4,206.5	4,064.5
Mar-05	624.8	4,206.5	4,062.9
Apr-05	317.2	4,206.5	4,061.3
May-05	198.7	4,206.5	4,059.7
Jun-05	17.8	4,206.5	4,058.2
Jul-05	7.0	4,206.5	4,056.6

Aug-05	9.3	4,206.5	4,055.0
Sep-05	45.4	4,206.5	4,053.4
Oct-05	239.6	4,206.5	4,051.8
Nov-05	421.1	4,206.5	4,050.2
Dec-05	716.9	4,206.5	4,048.6
Jan-06	586.0	4,206.5	4,047.0
Feb-06	642.6	4,206.5	4,045.4
Mar-06	540.2	4,206.5	4,043.8
Apr-06	300.8	4,206.5	4,042.2
May-06	146.5	4,206.5	4,040.6
Jun-06	33.8	4,206.5	4,039.1
Jul-06	5.6	4,206.5	4,037.5
Aug-06	16.9	4,206.5	4,035.9
Sep-06	99.7	4,206.5	4,034.3
Oct-06	306.4	4,206.5	4,032.7
Nov-06	390.4	4,206.5	4,031.1
Dec-06	536.0	4,206.5	4,029.5
Jan-07	692.1	4,206.5	4,027.9
Feb-07	768.1	4,206.5	4,026.3
Mar-07	535.0	4,206.5	4,024.7
Apr-07	363.4	4,206.5	4,023.1
May-07	127.1	4,206.5	4,021.5
Jun-07	28.6	4,206.5	4,020.0

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/14

Issues 1.3 - Should weather risk continue to be borne by the shareholders, and if so what other adjustments should be made?

Question:

Please confirm that the Board rejected Union's evidence in RP-2003-0063 relating to the 20-year declining trend method.

Response:

The Board did not reject Union's evidence in the RP-2003-0063 proceeding. Page 23 of the RP-2003-0063 Decision states:

"In order to test the suitability of changing the normalization methodology, and in consideration of the principle of minimizing rate shock, the Board will allow Union, for 2004, to forecast HDDs based on a 70:30 weighting of the 30-year average forecast and 20-year trend forecast respectively. For each year thereafter, the Board will consider 5% declines and inclines to the weighting of the 30 year and 20 year methodology respectively until such time as a 50:50 weighting is in place."

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/15 and B/2/6

Issues 1.3 - Should weather risk continue to be borne by the shareholders, and if so what other adjustments should be made?

Question:

Please confirm that the utility's weather methodology is not intended to predict the weather for a future period, but to create a situation in which, in the long term, cumulative annual differences between actual and forecast will approach zero.

Response:

Union's weather normal estimation method is not intended to predict the weather during a specified future period. The intent is to use a simple practical method where in the long run, the method is accurate, symmetrical and stable.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/16

Issues 1.3 - Should weather risk continue to be borne by the shareholders, and if so what other adjustments should be made?

Question:

Please advise why Union did not forecast total degree days for the entire IR period, using as its base past five year periods. Please confirm that, mathematically, a methodology that forecasts multi-year periods using multi-year periods in the historical data will be likely to have a lower annual percentage variance from future actuals than a method that forecasts annual periods based on annual periods in the past data.

Response:

Union did not forecast degree days for the entire incentive regulation period because under a price cap formula, a forecast is not required. The X factor is determined based on historical trends.

Question: August 16, 2007 Answer: September 4, 2007 EB-2007-0606 Docket:

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/16

Issues 1.3 - Should weather risk continue to be borne by the shareholders, and if so what other adjustments should be made?

Question:

Please advise why Union prefers a 20 year trend to a 30 year trend, 40 year trend, or 50 year trend. Please file whatever evidence Union has that demonstrates that the underlying causes of falling degree days have arisen over a 20 year period, but not over any longer period.

Response:

Please refer to the interrogatory response provided at Exhibit C23.12. The response demonstrates that the 20 year trend method is better than the 30 year trend method.

Forty and fifty year trend methods were not analyzed. Climate change and its impact on weather has manifested itself in the last two decades. Long run trends yield estimates not much different from averages.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/2/10

Issues 1.3 - Should weather risk continue to be borne by the shareholders, and if so what other adjustments should be made?

Question:

Please confirm that the data in Table 1 shows 50/50 and 20 year trend to be equal in symmetry, 20 year trend superior in accuracy, and 50/50 superior in stability.

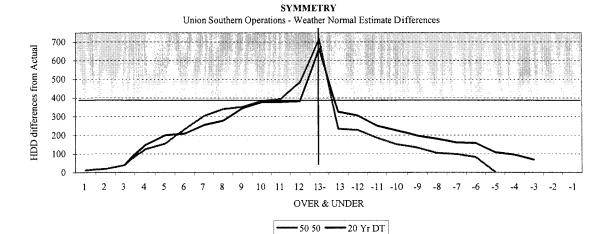
Response:

Please refer to the tables in the interrogatory response provided at Exhibit C23.12.

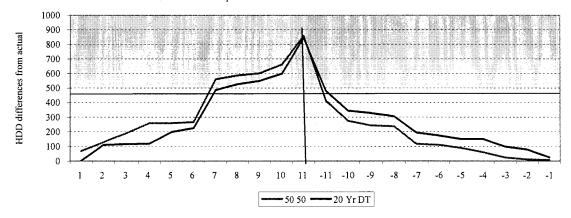
Symmetry: The 50:50 blend and the 20 year trend methods have identical symmetry in the northern & eastern operations area, but not in the southern operations area where the 20 year trend method is more symmetrical. The two charts presented below, provide a visual comparison of symmetry for the 20 year trend and 50:50 blend method. The estimation differences from actual weather ranked in ascending and descending order are charted. Ideally, symmetry would yield a mirror image of the over and under differences. The charts show that the 20 year trend is closer to the mirror image than the 50:50 blend method. The Energy Probe method is the least symmetrical of the three methods.

Accuracy: The 20 year trend method is the most accurate of the three methods.

Stability: In terms of stability the 50:50 blend method is the most stable of the three methods.



SYMMETRYUnion Northern Operations - Weather Normal Estimate Differences



Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/2/10-11

Issues 1.3 - Should weather risk continue to be borne by the shareholders, and if so what other adjustments should be made?

Question:

Please expand Tables 1 & 2 to include 30 year trend, 40 year trend, 30 year moving average, and naïve methods. Please provide a further table, for all seven methods, for the forty-year period 1967 to 2006.

Response:

The following three tables summarize the weather normal estimation method comparisons with an extended time frame with the inclusion of additional methods.

The comparisons start in the year 1985; this is the earliest year Union can include in the table. The available weather data is the limiting factor as several of the methods contain long estimation time span requirements, e.g. the Energy Probe method requires 39 years included in the regulatory lag.

The tables indicate that the 20 year trend method outperforms (lowest score) the other methods when evaluated against three criteria: accuracy, symmetry and stability that are weighted 40%, 40% and 20% respectively.

The time available to answer interrogatories did not allow for the comparative method analysis of the Leo de Bever method with and without trend.

Union Gas Annual Heating Degree Days Southern Franchise Area

		Weather Normal Estimation Methodology								
		20 Year	Blended	Blended	Energy	30 Year	30 Year	20 Year	10 Year	Naïve
Year	Actual	Trend	55:45	50:50	Probe	Trend	Average	Average	Average	Estimate
1985	3,926	4,126	4,045	4,052		4,125	3,978	4,022	4,082	3,908
1986	3,882	4,091	4,031	4,037		4,117	3,983	4,032	4,078	3,997
1987	3,684	4,061	4,020	4,024		4,096	3,986	4,030	4,089	3,926
1988	3,986	4,028	4,003	4,005		4,082	3,982	4,023	4,051	3,882
1989	4,154	3,957	3,969	3,968		4,026	3,979	4,006	4,018	3,684
1990	3,572	3,950	3,967	3,965	4,014	4,023	3,980	4,005	3,980	3,986
1991	3,631	3,977	3,984	3,983	4,151	4,039	3,990	4,015	3,981	4,154
1992	4,031	3,872	3,931	3,926	3,886	3,972	3,979	3,996	3,912	3,572
1993	4,105	3,779	3,886	3,876	3,732	3,910	3,973	3,984	3,875	3,631
1994	4,055	3,828	3,910	3,902	3,843	3,915	3,976	3,971	3,877	4,031
1995	3,987	3,826	3,911	3,904	3,955	3,933	3,981	3,989	3,897	4,105
1996	4,153	3,847	3,925	3,918	4,004	3,929	3,989	3,990	3,903	4,055
1997	4,005	3,824	3,915	3,907	4,008	3,928	3,989	3,999	3,909	3,987
1998	3,225	3,890	3,947	3,942	4,024	3,953	3,994	3,994	3,936	4,153
1999	3,641	3,896	3,949	3,944	3,999	3,958	3,993	3,993	3,968	4,005
2000	3,876	3,780	3,883	3,874	3,795	3,850	3,967	3,936	3,892	3,225
2001	3,467	3,745	3,861	3,851	3,775	3,804	3,957	3,911	3,840	3,641
2002	3,636	3,784	3,878	3,869	3,847	3,792	3,954	3,891	3,871	3,876
2003	3,958	3,707	3,835	3,824	3,821	3,718	3,941	3,865	3,854	3,467
2004	3,786	3,677	3,810	3,798	3,887	3,703	3,919	3,846	3,815	3,636
2005	3,778	3,709	3,829	3,818	3,874	3,693	3,926	3,848	3,800	3,958
2006	3,332	3,715	3,827	3,817	3,814	3,683	3,918	3,838	3,773	3,786
Avg. Error		55	111	106	129	108	158	151	115	36
MPE		1.9%	3.4%	3.3%	4.0%	3.3%	4.6%	4.4%	3.5%	1.5%
RMPSE		7.8%	8.01%	7.96%	9.6%	7.4%	8.6%	8.3%	8.02%	10.2%
O/U Freq.		50.0%	63.6%	59.1%	58.8%	50.0%	59.1%	68.2%	63.6%	50.0%
Std. Dev.		131	69	74	112	140	24	65	93	240

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.

Union Gas Annual Heating Degree Days Northern Franchise Area

		Weather Normal Estimation Methodology								
		20 Year	Blended	Blended	Energy	30 Year	30 Year	20 Year	10 Year	Naïve
Year	Actual	Trend	55:45	50:50	Probe	Trend	Average	Average	Average	Estimate
1985	5,438	5,340	5,326	5,327		5,434	5,315	5,373	5,378	5,195
1986	5,175	5,291	5,305	5,303		5,402	5,315	5,365	5,351	5,175
1987	4,722	5,321	5,324	5,324		5,402	5,327	5,363	5,382	5,438
1988	5,317	5,291	5,307	5,306		5,382	5,321	5,350	5,335	5,175
1989	5,654	5,174	5,248	5,241		5,279	5,309	5,312	5,288	4,722
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
2006	4,423	4,949	5,098	5,084	5,145	4,976	5,219	5,154	5,051	5,148
Avg. Error		66	136	130	185	113	194	176	135	51
MPE		1.7%	3.1%	3.0%	4.2%	2.6%	4.3%	3.9%	3.1%	1.6%
RMPSE		7.34%	7.72%	7.67%	8.6%	7.4%	8.3%	8.0%	7.69%	10.3%
O/U Freq.		50.0%	54.5%	50.0%	64.7%	54.5%	68.2%	63.6%	59.1%	50.0%
Std. Dev.		126	76	80	87	140	37	70	93	313

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.

WEATHER NORMAL METHOD RANKING TABLE

UNION SO	UTH			Wea	ther Norm	al Estimatio	n Methodolo	ogy		
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
20%	MPE	2	5	4	7	3	9	7	6	1
20%	RMPSE	2	4	3	8	1	7	6	5	9
40%	O/U Freq.	1	4	3	2	1	3	5	4	1
20%	Std. Dev.	7	3	4	6	8	1	2	5	9
	Score	2.6	4.0	3.4	5.0	2.8	4.6	5.0	4.8	4.2

UNION NO	RTH			Wea	ther Norm	al Estimatio	n Methodolo	ogy		
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
20%	MPE	2	6	4	8	3	9	7	5	1
20%	RMPSE	1	5	3	8	2	7	6	4	9
40%	O/U Freq.	1	2	1	5	2	6	4	3	1
20%	Std. Dev.	7	3	4	5	8	1	2	6	9
	Score	2.4	3.6	2.6	6.2	3.4	5.8	4.6	4.2	4.2

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.

Please note that when comparing the various weather normal methods over a longer time period, 1985 to 2006 as compared to 1990 to 2006 as presented in the supplemental evidence, the analysis indicates that the 20 year declining trend method is more symmetrical than the 50:50 blend method in the southern operating area and as symmetrical in the northern & eastern operating area when examined according to a simple frequency count ratio.

If the relative magnitude of the over and under variances is considered, then the 20 year declining trend is stronger in both operating areas. This can be shown by comparing the average size of the over and under variances as ratio. This is summarized below:

	20 Year Trend	Blended 50:50
Union South	1.5	2.5
Union North	1.6	2.8

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/16

Issues 1.3 - Should weather risk continue to be borne by the shareholders, and if so what other adjustments should be made?

Question:

Please advise whether Union would be satisfied with a weather variance account, to which variances in actual revenue caused by differences between the actual and forecast degree days were debited or credited annually, and recovered from or paid to ratepayers, with interest, over the following ten years on a rolling annual basis.

Response:

No. Please see interrogatory response provided at Exhibit C1.3.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/16

Issues 1.3 - Should weather risk continue to be borne by the shareholders, and if so what other adjustments should be made?

Question:

Please provide any studies, memos, research, analyses, or other documents, physical or electronic, in the possession of Union, its affiliates, or parent dealing in whole or in part with

- a) The impact of weather uncertainty on perceived investment risk related to the utility's equity;
- b) The impact of weather risk on ROE, cost of debt, or equity thickness, whether quantitatively or qualitatively;
- c) The impact of weather risk on the price of any past acquisition or sale of Union or its parent.

Response:

a) to c) There are 2 elements of weather risk for Union. The first element is the weather risk associated with the asymmetrical risk of the current approach to establishing normal weather. That risk means that, over time, weather will be approximately \$7 million warmer than normal each year. Union has proposed to correct this asymmetry through an adjustment to base rates.

The second element of weather risk is the annual variation of weather around a proper normal.

While earnings variability due to weather is a factor affecting a company's earnings, financing and access to capital, it should not be taken into account in determining ROE. Shareholders are able to diversify away weather risk by holding a portfolio of investments.

Please find attached excerpts from the EB-2005-0520 and RP-2002-0158 / EB-2002-0484 proceedings. Union does not have any other information of the nature requested.

Answer to Interrogatory from
Consumers Council of Canada ("CCC")
Industrial Gas Users Association ("IGUA")
Vulnerable Energy Consumers Coalition ("VECC")

Reference: E1/T2/p4

<u>Preamble:</u> With reference to Dr. Carpenter's comment on weather risk.

Issue 4.3 - Does the evidence support the proposal to change the existing capital structure, increasing Union's deemed common equity component from 35% to 40%?

Question:

Please confirm that Dr. Carpenter believes that weather risk is fully diversifiable and as a result Union Gas does not need to be compensated for bearing this risk.

Response:

Dr. Carpenter believes that weather risk is generally diversifiable by investors in Union's securities, but that it may not be "fully" diversifiable because there may be some correlation between seasonal weather conditions and economic activity. His conclusion regarding the evidence of changes in Union's business risk does not depend on changes in weather risk.

Witness: Paul Carpenter Question: March 10, 2006 Answer: April 4, 2006 Docket: EB-2005-0520

WRITTEN EVIDENCE OF PAUL R. CARPENTER

1 A17. No. Risk is not about expectations alone. Risk involves the *uncertainty* associated with
2 the expected outcomes. Some of the riskiest firms that one can evaluate from an
3 investment perspective are those that serve high growth but highly uncertain markets
4 such as telecommunications or technology. A high growth market is certainly a positive
5 factor from an equity investor's perspective *all else equal*. However, that same investor
6 will demand a higher rate of return if the expected growth is more uncertain.

Q18. What are the principal classes of business risk to which Union is exposed?

A18. Union is principally exposed to market risk in its gas distribution, storage and transportation businesses. Union is also exposed to regulatory risk, particularly given that there is currently substantial uncertainty over the future regulatory regime that will apply to Union's regulated businesses.

Q19. How does market risk manifest itself in Union's gas distribution business?

A19. The market risk to which Union is exposed in its distribution business manifests itself in uncertainty over the future utilization of its distribution assets. Because Union's gas distribution assets are sunk investments, and cannot be redeployed easily to another use should market conditions change, Union's future income earning capability depends critically on the maximum utilization of its assets. While Union has a regulated distribution monopoly in its franchise area, regulation does not provide Union with assured cost recovery protection should its asset utilization differ from its forecasts. In this way, Union bears some market risk that depends on asset utilization.

Q20. What factors could affect the utilization of Union's distribution assets?

A20. Distribution asset utilization is a function of the wholesale and retail price of the gas commodity itself, of competing fuels (particularly in the industrial customer class), of general economic activity in its service area, and of weather deviations from normal forecast conditions. Of these risk factors, the ones most important to equity investors (i.e., those that are systematic) are the level of prices and economic activity. Weather deviations from normal, while an important uncertainty for Union, are less important to equity investors because they are not likely to be correlated with the market and hence

WRITTEN EVIDENCE OF PAUL R. CARPENTER

they are a diversifiable risk. Again, this is because investors themselves can cheaply diversify away risks that are not correlated with movements in the general economy by holding a portfolio of equities, such as broadly-based mutual funds.

Q21. Is this market risk the same for Union's gas storage and transportation businesses?

A21. No, it is not. In contrast to its distribution businesses, Union's storage and transportation business faces competition from other suppliers. The effect of competition on the market risk of these businesses is so important that the NEB classifies competitive risk as a separate risk factor when it evaluates the business risk of the gas transmission businesses it regulates.⁷

Q22. To this point you have not mentioned supply risk. Does Union face supply risk in its gas distribution business?

A22. Not to a significant degree, in my opinion. This is partly because Union's gas supply costs are a pass-through item in its customers' bills. Of course, to the extent these supply costs rise, the market risk to which Union is exposed increases, as I describe below. But that is not the same as supply risk in that Union does not face a significant risk that the utilization of its facilities will be reduced due to the *unavailability* of supply. Union has access to gas supplies from a wide variety of supply sources and from a major, liquid hub at Dawn, Ontario.

Q23. How does Union's business risk compare with other gas LDC's, such as those included in Dr. Vilbert's LDC sample?

A23. Of the eight companies in Dr. Vilbert's U.S. LDC sample, only one has significant lines of business involving the provision of competitive storage and transportation service.⁸

Because of the significant component of Union's assets that are employed in the storage and transportation market and exposed to competition, in my opinion Union is somewhat

National Energy Board, Reasons for Decision, RH-2-2004 Phase II, April 2005, pages 26, 43-45.

KeySpan Corp. has a 20.4 percent interest in Iroquois Gas Transmission, and a 52 percent and 18 percent interest in the Honeoye and Steuben gas storage facilities, respectively. (See Table MJV-B1 in Appendix B of Dr. Vilbert's evidence for further details on the storage and transportation holdings of the companies in the U.S. LDC sample.)

Application for Review of the Board's Guidellines for Setting Return on Equity Board File No. RP-2002-0158 and EB-2002-0484

INTERROGATORIES

OF THE

CONSUMERS ASSOCIATION OF CANADA (CAC) THE INDUSTRIAL GAS USERS ASSOCIATION (IGUA)

AND THE VULNERABLE ENERGY CONSUMERS COALITION (VECC)

PIAC.46

Reference:

Evidence of Ms. McShane, Update Evidence, February 2003, pages 2-3.

Request:

Ms. McShane characterizes Enbridge and Union Gas as below and average risk respectively. For each year since 1990 please provide the allowed and the actual earned return on equity both on a normalized and un-normalized basis for the regulated assets. Please comment on the reasons for major deviations of

actuals from allowed.

RESPONSE:

Union Gas Limited/Centra Gas Ontario Inc.

The following are high level indicators of variances of actual earnings versus OEB approved earnings levels. Comparisons of allowed ROEs to normalized ROEs are not instructive in assessing relative risk. Risk is a function of actual earnings variability, not of variability of what earnings would have been if the weather experienced had been normal rather than what was actually experienced.

- Warmer than normal weather
- **b** Colder than normal weather
- c Transportation and storage revenue higher than forecast
- d Lower unaccounted for gas
- e Higher unaccounted for gas
- f Volume and mix variance
- g Customer growth
- h Higher cost of gas
- i Higher rental equipment revenue
- j One time separation cost
- k Support for variance is unavailable

Union Gas Limited Common Equity Returns

		Col. 1	Col. 2	Col. 3	Col. 4					
Line No.	-	Historical Approved	Actual Weather	Based on Normal Weather	Actual vs. Approved Variance	_Con	nmei	nts a	ttaci	ned
		%	%	%	%					
1.	Fiscal 1990	13.75	13,30	13.80	(0.450)	a	d	f		
2.	Fiscal 1991	13.500	10.70	13.40	(2.800)	а	d	f		
3.	Fiscal 1992	13,500	11.50	12.50	(2.000)	а	d	f		
4.	Fiscal 1993	13.00	14.00	13.70	1.000	f				
5.	Fiscal 1994	12.50	15.30	14.30	2.800	T	C			
6.	Fiscal 1995	11.75	10.95	12.14	(0.800)	а	C	f		
7.	Calendar 1995	11.75	12.17	12.12	0.420	k				
8.	Fiscal 1996	11.750	13.47	12.52	1.720	b	f	i		
9.	Fiscal 1997	11.00	12.19	12.26	1.190	Ь	f	i		
10.	Fiscal 1998	10.44	8.03	11.14	(2.410)	а	f	i	i	
11.	Fiscal 1999	9.61	8.760	10.100	(0.850)	а	С	f		
12.	Fiscal 2000	9.95	10.620	10.110	0.670	Ь	O	f	g	
13.	Fiscal 2001	9.95	9.300	11.453	(0.650)	а	С	h		
14.	Fiscal 2002 1	9.95	10.670	12.360	0.720	а	O	f		

Centra Gas Ontario Inc. Common Equity Returns

Col. 2 Col. 3 Col. 4 Col. 1 Based on Actual vs. Actual Normal **Approved** Historical Line Comments attached Weather Weather Variance Approved No. % % % % (1.220)13.50 12.28 14.15 1. Fiscal 1990 2. Fiscal 1991 13.750 10.73 12.06 (3.020)a g σ 3. Fiscal 1992 13.500 15.72 15.55 2.220 g Ь 14.13 13.07 1.630 ġ 4. Fiscal 1993 12.50 5. Fiscal 1994 11.85 12.14 12.37 0.290 1 12.13 13.00 12.40 0.875 6. Fiscal 1995 b 7. Fiscal 1996 12.125 11.53 10.37 (0.595)2.670 11.25 13.92 13.41 8. Fiscal 1997

Enbridge Gas Distribution Common Equity Returns

		Col. 1	Col. 2	Col. 3	Col. 4					
Line No.		Historical Approved	Based on Actual Weather	Based on Normal Weather	Actual vs. Approved Variance	Con	nmei	nts a	ttact	ned
		%	%	%	%					
1.	Fiscal 1990	13.25	13.57	13.60	0.320	8	f			
2.	Fiscal 1991	13.125	9.40	13.29	(3.725)	а	f			
3.	Fiscal 1992	13.125	13.29	13.40	0.165	а	f			
4.	Fiscal 1993	12.30	15.26	14.43	2.960	Ь	f	g		
5.	Fiscal 1994	11.60	14,69	12.49	3.090	Ь	f			
6.	Fiscal 1995	11.65	10.71	12.66	(0.940)	а	f	i	k	
7.	Fiscal 1996	11.875	15.00	13.14	3.125	ь	f	i		
8.	Fiscal 1997	11.50	13.17	13.00	1.670	b	f	g		
9.	Fiscal 1998	10.30	8.31	11.97	(1.990)	а	е	f		
10.	Fiscal 1999	9.51	7.943	10.771	(1.567)	а	е	f		
11.	Fiscal 2000	9.73	8.229	10.829	(1.501)	а	f			
12.	Fiscal 2001	9.54	10.800	10.029	1.260	С	d	f	g	h
13.	Fiscal 2002	9.66	8.982	11.805	(0.678)	a	f			

Enbridge Gas Distribution

The following are high level indicators of variances of actual earnings versus OEB approved earnings levels.

а	Warmer than normal weather
ь	Colder than normal weather
c	Colder than normal weather in higher margin winter months
d	Lower unaccounted for gas
e	Higher unaccounted for gas
f	Volume and mix variance
9	Customer growth
h	Lower municipal and other taxes
i	Higher rental equipment revenue
j	Lower NGV rental revenue
k	Lower merchanise related revenue

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/16

Issues 1.3 - Should weather risk continue to be borne by the shareholders, and if so what other adjustments should be made?

Question:

Please provide a table showing the weather normalized ROE of Union for each year from 1987 to 2006 inclusive.

Response:

Information prior to Fiscal 1990 is not available. Please see the table below for information for each year since 2003. Attachment #1 provides ROE data from 1990 – 2002.

<u>Union Gas Limited</u> Common Equity Returns

Line No.	Year (a)	Approved % (b)	Actual % (c)	Weather Normalized $\frac{\%}{(d)}$	Actual vs Approved Variance (e)	_Co	mm	ents	belo	ow_
1	2006	8.89	8.48	10.26	(0.41)	a	c	d		
2	2005	9.63	10.79	10.99	1.16	a	С	e		
3	2004	9.62	11.36	11.51	1.74	a	С	e		
4	2003	9.95	11.98	12.08	2.03	a	С	d		

The following are high level indicators of variances of acual earnings versus approved earnings levels.

- a Warmer than normal weather
- b Colder than normal weather
- c Transportation and storage revenue higher than forecast
- d Lower unaccounted for gas
- e Higher unaccounted for gas

Application for Review of the Board's Guidelines for Setting Return on Equity Board File No. RP-2002-0158 and EB-2002-0484

INTERROGATORIES OF THE CONSUMERS ASSOCIATION OF CANADA (CAC) THE INDUSTRIAL GAS USERS ASSOCIATION (IGUA) AND THE VULNERABLE ENERGY CONSUMERS COALITION (VECC)

PIAC.46

Reference:

Evidence of Ms. McShane, Update Evidence, February 2003, pages 2-3.

Request:

Ms. McShane characterizes Enbridge and Union Gas as below and average risk respectively. For each year since 1990 please provide the allowed and the actual eamed return on equity both on a normalized and un-normalized basis for the regulated assets. Please comment on the reasons for major deviations of

actuals from allowed.

RESPONSE:

Union Gas Limited/Centra Gas Ontario Inc.

The following are high level indicators of variances of actual earnings versus OEB approved earnings levels. Comparisons of allowed ROEs to normalized ROEs are not instructive in assessing relative risk. Risk is a function of actual earnings variability, not of variability of what earnings would have been if the weather experienced had been normal rather than what was actually experienced.

- a Warmer than normal weather
- b Colder than normal weather
- c Transportation and storage revenue higher than forecast
- d Lower unaccounted for gas
- e Higher unaccounted for gas
- f Volume and mix variance
- Customer growth
- h Higher cost of gas
- i Higher rental equipment revenue
- j One time separation cost
- k Support for variance is unavailable

Union Gas Limited Common Equity Returns

		Col. 1	Col. 2	Col. 3	Col. 4	
Line No.		Historical Approved	Actual Weather	Based on Normal Weather	Actual vs. Approved Variance	Comments attached
		%	%	%	%	
1.	Fiscal 1990	13.75	13.30	13.80	(0.450)	a d f
2.	Fiscal 1991	13.500	10.70	13.40	(2.800)	a d f
3,	Fiscal 1992	13.500	11.50	12.50	(2.000)	a d f
4.	Fiscal 1993	13.00	14.00	13.70	1.000	f
5.	Fiscal 1994	12.50	15.30	14.30	2.800	f c
6.	Fiscal 1995	11 <i>.</i> 75	10.95	12.14	(0.800)	a c f
7.	Calendar 1995	11.75	12.17	12.12	0.420	k
8.	Fiscal 1996	11.750	13.47	12.52	1.720	b f i
9.	Fiscal 1997	11.00	12.19	12.26	1.190	b f i
. 10.	Fiscal 1998	10.44	8.03	11.14	(2.410)	a f i
11.	Fiscal 1999	9.61	8.760	10.100	(0.850)	a c f
12.	Fiscal 2000	9.95	10.620	10.110	0.670	b c f g
13.	Fiscal 2001	9.95	9.300	11.453	(0.650)	a c h
14.	Fiscal 2002 1	9.95	10.670	12.360	0.720	a c f

Centra Gas Ontario Inc. Common Equity Returns

		Col. 1	Col. 2	Col. 3	Col. 4					
Line No.		Historical Approved	Actual Weather	Based on Normal Weather	Actual vs. Approved Variance	Con	nmei	nts a	ttac	hed
		%	%	%	%					
1.	Fiscal 1990	13.50	12.28	14.15	(1.220)	k				
2.	Fiscal 1991	13.750	10.73	12.06	(3.020)	а	g			
3.	Fiscal 1992	13.500	15.72	15.55	2.220	Ь	f	g		
4.	Fiscal 1993	12.50	14.13	13.07	1.630	Ь	f	ġ		
5.	Fiscal 1994	11.85	12.14	12.37	0.290	f				
6.	Fiscal 1995	12.13	13.00	12.40	0.875	f				
7.	Fiscal 1996	12.125	11.53	10.37	(0.595)	ь	f			
8.	Fiscal 1997	11.25	13.92	13.41	2.670	k				

Enbridge Gas Distribution Common Equity Returns

		Col. 1	Col. 2	Col. 3	Col. 4					
Line No.		Historical Approved	Based on Actual Weather	Based on Normal Weather	Actual vs. Approved Variance	Con	nmer	nts a	ttact	ned
		%	%	%	%					
1.	Fiscal 1990	13.25	13.57	13.60	0.320	а	f			
2.	Fiscal 1991	13.125	9.40	13.29	(3.725)	а	f			
3.	Fiscal 1992	13.125	13.29	13.40	0.165	а	f			
4.	Fiscal 1993	12.30	15.26	14.43	2.960	Ь	f	g		
5.	Fiscal 1994	11.60	14.69	12.49	3.090	b	f			
6.	Fiscal 1995	11.65	10.71	12.66	(0.940)	а	f	i	k	
7.	Fiscal 1996	11.875	15.00	13.14	3.125	Ь	f	- 1		
8.	Fiscal 1997	11.50	13.17	13.00	1.670	Ь	f	g		
9.	Fiscal 1998	10.30	8.31	11.97	(1.990)	а	е	f		
10.	Fiscal 1999	9.51	7.943	10.771	(1.567)	a	_ е	f		
11.	Fiscal 2000	9.73	8.229	10.829	(1.501)	а	f			
12.	Fiscal 2001	9.54	10.800	10.029	1.260	С	d	f	g	h
13.	Fiscal 2002	9.66	8.982	11.805	(0.678)	a	f			

Enbridge Gas Distribution

The following are high level indicators of variances of actual earnings versus OEB approved earnings levels.

а	Warmer than normal weather
ь	Colder than normal weather
¢	Colder than normal weather in higher margin winter months
d	Lower unaccounted for gas
e	Higher unaccounted for gas
1	Volume and mix variance
9	Customer growth
h	Lower municipal and other taxes
i	Higher rental equipment revenue
j	Lower NGV rental revenue
k	Lower merchanise related revenue

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/23

Issues 2.3 - How often should the Board update the inflation factor?

Question:

Please provide the GDP IPI data for each of the last eleven quarters.

Response:

The attached table provides the GDP IPI inflation index data. The table shows indices according to the 2002 base year.

GDP IPI FDD Index 2002 Base Year

		<u>Index</u>	YOY Ch	<u>Ann. %</u>	Mvg4QAvg
2004	Q2	103.3			
2004	Q3	103.4			
2004	Q4	103.8			
2005	Q1	104.4			
2005	Q2	105.2	1.9	1.8%	1.84%
2005	Q3	105.8	2.4	2.3%	2.08%
2005	Q4	105.9	2.1	2.0%	2.06%
2006	Q1	107.0	2.6	2.5%	2.17%
2006	Q2	107.2	2.0	1.9%	2.18%
2006	Q3	107.6	1.8	1.7%	2.03%
2006	Q4	108.0	2.1	2.0%	2.02%
2007	Q1	109.0	2.0	1.8692%	1.86%

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/8 and many other places

Issues 3.1 - How should the X factor be determined?

Question:

Please provide the annual O&M and capital spending of Union for each year from 1997 through 2006, eliminating therefrom all items that Union proposes should be Y factors or Z factors during the IR period.

Response:

Please see attached schedule for the period 1999 - 2006.

UNION GAS LIMITED For the Years Ending December 31 \$ 000's

Line No.		1999	2000	2001	2002	2003	2004	2005	2006
1	Net Utility Operating and Maintenance Expense	249,928	243,754	253,863	280,876	281,489	298,309	302,806	310,244
2 3	Y Factor - Demand Side Management Programs Z - Factors - none	(3,020)	(2,682)	(2,940)	(3,115)	(1,800)	(4,615)	(4,000)	(4,000)
4		246,908	241,072	250,923	277,761	279,689	293,694	298,806	306,244
5	Total Capital Spend	221,732	203,381	218,123	192,727	134,782	146,601	230,600	337,664
6	Y - Factors - none	-	-	-	-	-	-	-	-
7	Z - Factors - none	-	-	-	-	-	-	-	
8		221,732	203,381	218,123	192,727	134,782	146,601	230,600	337,664

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/8

Issues 3.1 - How should the X factor be determined?

Question:

Please calculate and provide, for each year from 1997 through 2006, the revenue requirement per customer, and then recalculate and provide the same, but excluding therefrom the impact of all items that Union now proposes should be Y factors or Z factors during the IR period.

Response:

Please see interrogatory responses provided at Exhibits C23.02 and C23.17.

Union is not proposing any specific Z factors in this filing.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/32

Issues 3.1 - How should the X factor be determined?

Question:

Please provide any forecasts, estimates, projections, analyses, or other documents, physical or electronic, showing whether, after rates are adjusted by Y factors and Z factors, rates will rise at no more than "an annual inflationary increase".

Response:

Please see interrogatory responses provided at Exhibits C3/C16/C33.4, Exhibit C2.2 and Exhibit C23.2.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/32

Issues 3.1 - How should the X factor be determined?

Question:

Please provide a table showing the average bill (excluding commodity charges) for each residential customer, each commercial general service customer, and each industrial general service customer, for each of the years 1997 through 2006.

Response:

Please refer to interrogatory response provided at Exhibit C3/C16/C33.1 for tables showing the average bill for a typical M2 residential customer and a typical M2 commercial customer.

The table showing the average bill for a typical M2 industrial customer (using an annual volume of 73,000 m3) is provided below.

Industrial Bill Comparison
General Service - Rate M2
Based on an annual consumption of 73,000 m³

Line No.	Year (a)	EBRO Number (b)	Delivery & Storage (\$) (c)	Transportation (\$) (d)	Commodity (\$) (e)	Estimated Annual Bill (\$) (f)
1	1997	494	4,516	3,337	5,322	13,174
2	1998	494-06A	4,942	2,489	5,768	13,199
3	1999	499	4,386	2,486	7,491	14,363
4	2000	RP-1999-0017	4,483	2,486	22,860	29,829
5	2001	RP-2001-0029	4,707	3,112	14,309	22,128
6	2002	RP-2001-0029	4,431	3,112	14,309	21,852
7	2003	RP-2002-0130	4,228	3,306	19,020	26,554
8	2004	RP-2003-0063	4,367	2,751	19,478	26,597
9	2005	RP-2003-0063	3,885	2,960	21,575	28,420
10	2006	EB-2005-0531	3,778	2,606	30,421	36,805
11	2007	EB-2006-0502	3,755	2,450	18,127	24,332

Note: includes rate riders

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/33

Issues 3.3 - What are the expected cost and revenue changes during the IR plan that should be taken into account in determining an appropriate X factor?

Question:

Please provide a detailed table showing the average age and years of service for Union's employees in each of the last twenty years, broken down by employee category (e.g. executive, managerial, unionized, other, or finer breakdowns if possible). If Union has any forecasts of that same data for future years, please provide those forecasts as well.

Response:

The available Average Age and Years of Service for Union Gas employees is included in the Chart below.

The Union Gas Aging Workforce identified in the Chart is consistent with the Employment Trends and Data published by HRDC.

The average age and years of service of Unionized employees in 2007 is 48 and 20 respectively compared with an average age of 42 with 15 years of service in 1994. The impact of this aging workforce at Union is especially evident in Unionized field roles. To be specific, using 2007 data, 49% of the Unionized field employees are over 50 while 23% are over the age of 55.

The Union Gas Workforce Development and Enhancement Initiative ("WDEI") filed with the Board in 2005 as part of the 2007 rates proceeding focused on Front Line Operational Roles which are largely consistent with the Unionized field roles identified above. Union Gas conducted a recent review of these in-scope roles and is forecasting a slightly higher rate of retirement in the period of 2011 through 2015 (225 retirements compared with 203 retirements forecast for the period 2006 through 2010).

Investment in Front Line Operational Roles continues to be required because of the specialised nature of these roles. The significant, multi year timeframe for technical training and the subsequent learning curve, coupled with the higher age profile and the forecasted trend for retirements, supports continued investment to ensure the provision of legislated emergency response services and to ensure safe, reliable operation of the Union network.

Average Age and Years of Service for Union Gas Employees

Note:

(1) Averages are based on the # of active employees at the end of the year. For 2007 the averages are based on the # of active employee as of August 22, 2007.

(2) Employee category 'Executive' was not identified in 1994 and 1995.

Year	Averages	Executive	Managerial	Other	Unionized
1994	Average of Age		39	42	42
1334	Average of Years of Service		13	13	15
1995	Average of Age		40	42	42
1993	Average of Years of Service		13	13	15
1996	Average of Age	49	40	43	43
1990	Average of Years of Service	11	13	14	15
1997	Average of Age	48	41	43	43
1997	Average of Years of Sevice	11	14	14	15
1998	Average of Age	50	41	44	43
1998	Average of Years of Sevice	9	14	15	16
1999	Average of Age	52	40	43	44
1999	Average of Years of Sevice	7	13	15	17
2000	Average of Age	45	41	44	44
2000	Average of Years of Sevice	12	13	15	16
2001	Average of Age	43	41	45	45
2001	Average of Years of Sevice	14	13	15	17
2002	Average of Age	46	42	45	46
2002	Average of Years of Sevice	17	14	16	17
2002	Average of Age	48	43	46	46
2003	Average of Years of Sevice	16	15	16	18
2004	Average of Age	50	43	46	47
2004	Average of Years of Sevice	14	15	17	19
2005	Average of Age	47	44	46	48
2003	Average of Years of Sevice	14	15	16	19
2006	Average of Age	47	44	46	48
2006	Average of Years of Service	12	16	17	19
2007	Average of Age	49	45	46	48
2007	Average of Years of Service	15	16	17	20
2005	Over 50				43.30%
2003	Over 55				18.57%
2006	Over 50				45.77%
2006	Over 55		ļ		21.08%
2007	Over 50				48.55%
2007	Over 55				23.55%

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/33

Issues 3.3 - What are the expected cost and revenue changes during the IR plan that should be taken into account in determining an appropriate X factor?

Question:

Please provide a detailed table showing the average cost per employee for each of pension costs and benefit costs in each of the last twenty years, broken down by employee category (e.g. executive, managerial, unionized, other, or finer breakdowns if possible). If Union has any forecasts of that same data for future years, please provide those forecasts as well.

Response:

Please see the attached schedule for the information that is readily available.

Line <u>No</u> .	\$/FTE	_	Actual 2004 (a)	_	Actual 2005 (c)	_	Actual 2006	-	Forecast 2007
(a) (c) (g) Average Yearly wages								(9)	
1	Management	\$	77,722	\$	76,999	\$	79,183	\$	87,675
2	Analyst	\$	57,368	\$	64,127	\$	55,325	\$	64,714
3	Unionized	\$	49,867	\$	54,109	\$	58,548	\$	56,253
4	Non-Unionized	\$	48,482	\$	43,281	\$	38,396	\$	54,691
5	Average	\$	60,650	\$	62,588	\$	65,095	\$	68,417
A۱	verage Yearly Varia	ble P	av						
6	Management	\$	11,282	\$	11,959	\$	13,211	\$	12,818
7	Analyst	\$	4,363	\$	5,186	\$	4,483	\$	4,275
8	Unionized	\$	1,622	\$	1,682	\$	2,099	\$	1,589
9	Non-Unionized	\$	3,524	\$	3,359	\$	4,444	\$	3,452
10	Average	\$	5,556	\$	5,894	\$	6,864	\$	6,089
A [,]	verage Yearly Bei	nefit							
11	Management	\$	24,541	\$	26,939	\$	28,662	\$	28,380
12	Analyst	\$	22,094	\$	24,252	\$	25,303	\$	25,549
13	Unionized	\$	22,656	\$	24,869	\$	29,970	\$	26,199
14	Non-Unionized	\$	22,052	\$	24,206	\$	33,769	\$	25,500
15	Average	\$	23,248	\$	25,520	\$	29,220	\$	26,884
Average Yearly Compensation									
16	Management	\$	113,546	\$	115,897	\$	121,055	\$	128,873
17	Analyst	\$	83,825	\$	93,565	\$	85,111	\$	94,538
18	Unionized	\$	74,145	\$	80,660	\$	90,617	\$	84,042
19	Non-Unionized	\$	74,057	\$	70,846	\$	76,608	\$	83,643
20	Average	\$	89,454	\$	94,002	\$	101,179	\$	101,390

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/34

Issues 3.3 - What are the expected cost and revenue changes during the IR plan that should be taken into account in determining an appropriate X factor?

Question:

Please provide a calculation of the expected impact of changes to the Canadian dollar exchange rate on Union's throughput and revenues during the IR period. Please provide any studies, analyses, and other information related to such impacts.

Response:

No studies, analyses, or any other information of the nature requested is available. Union is not in a position of specifically quantifying the impact changes in exchange rates will have on customers' consumption.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/28-31

Issues 4.1 - Is it appropriate to include the impact of changes in average use in the annual adjustment?

Question:

Please provide the data behind Charts 3 through 9, in Excel format.

Response:

Data for charts 3 to 9

Normalized Avg. Consumption: m³ / customer						
Res M2	NAC	If No				
Year	Reported	DSM				
1991	3,042	3,042				
1992	3,040	3,040				
1993	2,986	2,986				
1994	2,940	2,940				
1995	2,943	2,943				
1996	2,988	2,988				
1997	2,933	2,933				
1998	2,793	2,807				
1999	2,777	2,799				
2000	2,771	2,804				
2001	2,714	2,763				
2002	2,744	2,801				
2003	2,706	2,771				
2004	2,629	2,699				
2005	2,580	2,653				
2006	2,554	2,647				
Normalized Avg. Consumption						
Res 01	NAC	If No				
Year	Reported	DSM				
1991	3,273	3,273				
1992	3,262	3,262				
1993	3,183	3,183				
1994	3,119	3,119				

3,063

2,999

3,063

2,999

Question: August 16, 2007 Answer: September 4, 2007 Docket: EB-2007-0606

1995

1996

1997	2,983	2,983
1998	2,814	2,828
1999	2,843	2,866
2000	2,950	2,986
2001	2,789	2,840
2002	2,793	2,851
2003	2,814	2,881
2004	2,682	2,754
2005	2,638	2,712
2006	2,605	2,701
	_,	-,:
	Normalized Avg	. Consumption
Comm		•
M2	NAC	If No
Year	Reported	DSM
1991	19,444	19,444
1992	19,875	19,875
1993	19,313	19,313
1994	18,521	18,521
1995	18,641	18,641
1996	19,373	19,373
1997	19,089	19,089
1998	18,090	18,198
1999	18,115	18,308
2000	17,658	17,878
2001	17,788	18,112
2002	17,935	18,376
2003	17,892	18,407
2004	17,459	18,141
2005	17,020	17,852
2006	17,510	18,719
	,	,
	Normalized Avg	. Consumption
Comm		
01	NAC	If No
Year	Reported	DSM
1991	11,224	11,224
1992	10,985	10,985
1993	10,762	10,762
1994	10,460	10,460
1995	10,255	10,255
1996	10,185	10,185
1997	10,136	10,136
1998	8,866	8,919
1999	8,603	8,695
2000	9,664	9,785
2001	8,795	8,956
2002	9,283	9,511
2003	9,370	9,640

2004	0.045	0.007
2004	8,947	9,297
2005	8,796	9,226
2006	8,432	9,015
	Normalized Avg	. Consumption
Comm		
10	NAC	If No
Year	Reported	DSM
1991	111,910	111,910
1992	105,678	105,678
1993	105,504	105,504
1994	109,594	109,594
1995	112,530	112,530
1996	110,126	110,126
1997	107,424	107,424
1998	100,974	101,579
1999	94,120	95,125
2000	106,349	107,675
2001	98,406	100,198
2002	102,624	105,146
2003	98,316	101,145
2004	96,711	100,485
2005	95,215	99,869
2006	93,627	100,090
	Normalized Avg	g. Consumption
Ind M2	Normalized Avg NAC	g. Consumption If No
Ind M2 Year	_	· -
	NAC	If No
Year	NAC Reported	If No DSM 75,739
Year 1991	NAC Reported 75,739	If No DSM
Year 1991 1992	NAC Reported 75,739 72,759	If No DSM 75,739 72,759
Year 1991 1992 1993	NAC Reported 75,739 72,759 77,925	If No DSM 75,739 72,759 77,925 77,468
Year 1991 1992 1993 1994	NAC Reported 75,739 72,759 77,925 77,468	If No DSM 75,739 72,759 77,925
Year 1991 1992 1993 1994 1995	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216
Year 1991 1992 1993 1994 1995	NAC Reported 75,739 72,759 77,925 77,468 76,249	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216 81,009
Year 1991 1992 1993 1994 1995 1996	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216 81,009	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216
Year 1991 1992 1993 1994 1995 1996 1997 1998	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175
Year 1991 1992 1993 1994 1995 1996 1997 1998 1999	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207
Year 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606
Year 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047
Year 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615
Year 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460 80,176	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460 80,176
Year 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460
Year 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460 80,176 85,675 82,479	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460 80,176 85,675 82,479
Year 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460 80,176 85,675 82,479 Normalized Avg	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460 80,176 85,675 82,479 g. Consumption
Year 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460 80,176 85,675 82,479 Normalized Avg	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460 80,176 85,675 82,479 g. Consumption If No
Year 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006	NAC Reported 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460 80,176 85,675 82,479 Normalized Avg	If No DSM 75,739 72,759 77,925 77,468 76,249 78,216 81,009 80,175 84,606 76,207 84,615 87,047 86,460 80,176 85,675 82,479 g. Consumption

1992	270,538	270,538
1993	285,153	285,153
1994	301,113	301,113
1995	284,796	284,796
1996	305,854	305,854
1997	254,523	254,523
1998	173,196	173,196
1999	191,326	191,326
2000	203,164	203,164
2001	219,444	219,444
2002	242,466	242,466
2003	282,362	282,362
2004	231,978	231,978
2005	259,861	259,861
2006	238,406	238,406

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/28-31

Issues 4.1 - Is it appropriate to include the impact of changes in average use in the annual adjustment?

Question:

Please advise whether any of the customers excluded from the data were schools and, if so, the number of schools excluded and the Charts affected thereby.

Response:

No customers were excluded.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/28-31

Issues 4.1 - Is it appropriate to include the impact of changes in average use in the annual adjustment?

Question:

Please restate Charts 3 and 5 using the proposed new M1 and M2 classes as the criterion for breakdown.

Response:

Please see interrogatory response provided at Exhibit C23.27.

<u>UNION GAS LIMITED</u>

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/37

Issues 4.1 - Is it appropriate to include the impact of changes in average use in the annual adjustment?

Question:

Please calculate the appropriate AU factor for each of the new M1 and M2 classes on the assumption that the AU factor should correctly capture changes in average use for each class. Please provide the detailed data sources for your calculation.

Response:

This request cannot be answered as the historical data for the M1/M2 rate class split of revenues is not available.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/29

Issues 4.1 - Is it appropriate to include the impact of changes in average use in the annual adjustment?

Question:

Please provide any studies, memos, research, analyses, forecasts, or other documents, physical or electronic, dealing in whole or in part with the reasons for changes in average use for commercial M2 or Rate 10 customers, including, without limiting the generality of the foregoing, any documents that calculate or estimate the disaggregated factors driving changes in average use.

Response:

Commercial rate 10 is a small group of relatively larger volume customers compared to rate M2 commercial customers. The consumption behaviour of certain larger volume groupings of customers, i.e. institutions, can affect the whole class of customers. In rate M2, the impact of these customers is diluted by the larger customer base.

Commercial rate M2 is about 79,000 customers and commercial rate 10 contains around 2,900 customers. The rate 10 group excludes customers whose annual consumption is below 50,000 cubic metres, which the current rate M2 group does not exclude.

A key driver in commercial energy use is building type and the associated market segmentation. In each market segment the total current and new floor space area, the replacement of old gas equipment and the installation of new equipment, and the efficiencies of the buildings and equipment are factors that offset customer consumption. Union's commercial demand forecast equations contain an energy efficiency market segmentation variable that accounts for these drivers. This variable is an index that explains the long run decline in average usage.

Commercial M2 contains a very large proportion of office retail customers, which accounts for about half the consumption. This segment is the fastest growing in terms of the total number of customers. The office retail customers on average consume much less than the class average. Institutional customers such as schools and hospitals consume much more than the class average; however the growth in the total number of institutional customers is smaller than the office retail group. Commercial M2 also contains customers in the agricultural industry, notably green houses some of whom can use alternate fuel.

Green houses consume large amounts of energy. Grain dryers are another agricultural commercial load that depending upon summer precipitation can affect fall shoulder month consumption.

Commercial rate 10 has comparatively larger volume customers. The share that institutions represent in this class of customers is larger than it is in commercial rate M2. Rate migration between rate 01 and the rate 10 customer classes can cause fluctuations in the average usage of commercial rate 10 customers in certain years. The decline in average consumption per customer in 1999 reflects the introduction of a new billing system that replaced an obsolete system. The introduction of the new system may have resulted in adjustments to results in customers with customer classifications.

In both customer groups the construction of new commercial establishments incorporates more energy efficient design, equipment and structures being included in the rate classes. Wiser energy consumption is practiced in both rate classes. Both these factors lower consumption over time. Higher energy prices also promote wise energy usage and more energy efficient construction activity.

The Federal Government (Natural Resources Canada, the Office of Energy Efficiency) department provides commercial building related energy research information.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/30

Issues 4.1 - Is it appropriate to include the impact of changes in average use in the annual adjustment?

Question:

Please advise why, in Union's view, the changes in normalized average use for Rate 10 differ so substantially in pattern from those of Commercial Rate M2.

Response:

Please see interrogatory response provided at C23.28.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/37

Issues 4.1 - Is it appropriate to include the impact of changes in average use in the annual adjustment?

Question:

Please explain why Union proposes to apply the General Service AU factor to all General Service customers, when Union's data shows that Commercial M2 customers have no material decline in normalized average use.

Response:

Please see interrogatory response provided at Exhibit C4.8.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/37

Issues 4.1 - Is it appropriate to include the impact of changes in average use in the annual adjustment?

Question:

Using forecast impacts for each of the years 2008 through 2012, please provide a proof that Union's proposed change to the application of the AU factor would be revenue neutral for the utility.

Response:

Union proposed a different service group PCI than PEG had proposed for primarily two reasons:

- 1) Union believes that Rate 10 should be included in the group of rate classes that are adjusted by the AU factor.
- 2) There should not be a difference in the total price change that results from applying a single PCI to all rate classes and applying different PCIs to service groups. Union felt its proposed approach was simpler and more intuitive. Union did not intend for its service group PCIs to achieve the same result as PEG's service group PCIs.

A forecast of the price cap inflator for 2009 - 2012 is not available; however, 2008 should be illustrative of all years.

Please see the attached schedule for Union's calculation of the price cap adjustment for 2008 using 1) Union's proposed PCI by service group, 2) Union's total proposal PCI of 1.84% and, 3) the PCI by service group proposed in the PEG Study (excluding the stretch factor). The stretch factor was excluded from PEG's PCIs by service group so that the price cap adjustments in each of the three cases would be comparable.

The attached schedule shows there is not a material difference between the price cap adjustment using Union's PCI by service group and the total PCI.

UNION GAS LIMITED Calculation of Price Cap Adjustment For the Year Ended December 31, 2008

Line No.	Particulars (\$000's)	General Service	In-franchise Contract (2)	Total In-franchise	Cost Based Exfranchise	Total Company
		(a)	(b)	(c) = (a+b)	(d)	(e) = (c+d)
	Calculation of Price Cap Base - Union Service Groups					
1	2007 Approved Revenue (1)	639,434	125,037	764,471	195,150	959,621
	Current year's pre-cap adjustments:					
2	DSM	(10,688)	(6,312)	(17,000)		(17,000) (3)
3	Upstream Transportation	(53,969)	(7,239)	(61,208)		(61,208) (4)
4	Storage Premium Adjustment	3,229	527	3,756		3,756 (5)
5	Price Cap Base Revenue	578,006	112,013	690,019	195,150	885,169
6	2008 Price Cap Adjustment (Line 5 *PCI %)	12,947	1,255	14,202	2,186	16,388
-	PCI % - General Service	2.24% (6)				
7 8	PCI % - General Service PCI % - Infranchise Contract and Regulated Exfranchise	1.12% (7)				
0	FOI 76 - Infranciase Contract and Negulated Extranomise	1.1270 (1)				
	Calculation of Price Cap Base - Union Average					
9	2007 Approved Revenue (1)	639,434	125,037	764,471	195,150	959,621
	Current year's pre-cap adjustments:					
10	DSM	(10,688)	(6,312)	(17,000)		(17,000) (3)
11	Upstream Transportation	(53,969)	(7,239)	(61,208)		(61,208) (4)
12	Storage Premium Adjustment	3,229	527	3,756		3,756 (5)
13	Price Cap Base Revenue	578,006	112,013	690,019	195,150	885,169
						-
14	2008 Price Cap Adjustment (Line 5 * PCI %)	10,635	2,061	12,696	3,591	16,287
45	PCI % - General Service	1.84% (8)				
15	PCI % - General Service PCI % - Infranchise Contract and Regulated Exfranchise	1.84% (9)				
16	POI 78 - Ithianonise Contract and Negulated Extranonise	1.0470 (0)				
	Calculation of Price Cap Base - PEG Service Groups - Adjusted					
17	2007 Approved Revenue (1)	597,980	166,491	764,471	195,150	959,621
	Current year's pre-cap adjustments:					(47 500) (0)
18	DSM	(9,286)	(7,714)	(17,000)		(17,000) (3)
19	Upstream Transportation	(38,804)	(22,404)	(61,208)		(61,208) (4)
20	Storage Premium Adjustment	3,099	657	3,756		3,756 (5)
21	Price Cap Base Revenue	552,989	137,030	690,019	195,150	885,169
22	2008 Price Cap Adjustment (Line 5 * PCI %)	13,769	795	14,564	1,132	15,696
23	PCI % - General Service	2.49% (10	0)			
24	PCI % - Infranchise Contract and Regulated Exfranchise	0.58% (1	,			
<u>_</u>			•			

Notes:

(1) EB-2005-0520, Rate Order, Working Papers, Schedule 5, Col (f), adjusted for TCPL toll update (EB-2007-0053, Schedule 5, Page 2, Working Papers, and EB-2007-0634, Schedule 5, Page 2, Working Papers)

Question: August 16, 2007 Answer: September 4, 2007 EB-2007-0606 Docket:

⁽²⁾ In-franchise contract includes Rate 10 for PEG analysis only

⁽³⁾ EB-2006-0221, Decision with Reasons, Phase I, Page 23

⁽⁴⁾ EB-2005-0520, Rate Order, Working Papers, Schedule 26, Page 2, Col (b), Line 7, adjusted for TCPL toll update (EB-2007-0053, Schedule 5, Page 2, Working Papers, and EB-2007-0634, Schedule 5, Page 2, Working Papers)

⁽⁵⁾ Includes long term and short term storage premium and deferral account elimination impacts

⁽⁶⁾ EB-2007-0606, Pre-filed Evidence, Exhibit B, Tab 1, Page 37, Table 3

⁽⁷⁾ EB-2007-0606, Pre-filed Evidence, Exhibit B, Tab 1, Page 37, Table 3

⁽⁸⁾ EB-2007-0606, Pre-filed Evidence, Exhibit B, Tab 1, Page 24, Table 2

⁽⁹⁾ EB-2007-0606, Pre-filed Evidence, Exhibit B, Tab 1, Page 24, Table 2

⁽¹⁰⁾ EB-2007-0606, Pre-filed Evidence, Exhibit B, Tab 1, Appendix f, Page iv, adjusted for stretch factor

⁽¹¹⁾ EB-2007-0606, Pre-filed Evidence, Exhibit B, Tab 1, Appendix f, Page iv, adjusted for stretch factor

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/40

Issues 6.1 - What are the criteria for establishing Z factors that should be included in the IR plan?

Question:

Using the utility's proposed criteria for Z factors, please advise whether each of the following hypotheticals would, in Union's opinion, qualify for Z factor treatment:

- a) The NEB approves an ROE formula for TCPL that includes a "flotation factor" of 150 basis points instead of 50 basis points, as is used in Ontario.
- b) The OEB approves an ROE formula for electricity utilities for 3rd generation IRM that reduces the overall level, relative to the ROE applicable to gas utilities, by 100 basis points.
- c) The federal government reduces the corporate income tax rate by 4%.
- d) The Ontario government reduces the corporate income tax rate by 4%.
- e) GAAP is changed to require expensing of the undepreciated capital cost of an asset as soon as it is known that it will be taken out of service within five years.
- f) The Ontario government increases the minimum wage to \$12, and that has a ripple effect in wages at all levels throughout the province.
- g) Increased uncertainty in the Ontario electricity generation sector due to changes in government policy leads to material changes in the level of gas-fired merchant generation planned in the Union franchise area.
- h) A gas-fired air conditioner that is competitive with electric heat pumps is invented and available commercially in Ontario.
- i) The Ontario government bans the sale of mid-efficiency furnaces to reduce greenhouse gas emissions.
- j) A fire of unknown origin destroys the head office building of the utility.

Response:

The following answers to the hypothetical events provided assume that each event would meet or exceed the materiality threshold of \$1.5 million cost increase or decrease.

- a) Yes. If Union applied for a similar change during the price cap term and it was accepted by the Board. Also see interrogatory response provided at Exhibit C13.28.
- b) Yes. If Union applied for a similar change during the price cap term and it was accepted by the Board. Also see interrogatory response provided at Exhibit C13.28.
- c) No.
- d) Yes.
- e) Yes.
- f) Yes.
- g) No.
- h) No.
- i) No.
- j) Yes, if it exceeds threshold, net of insurance coverage.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/39

Issues 7.1 - How should the impact of the NGEIR decisions, if any, be reflected in rates during the IR plan?

Question:

Please confirm that the overall impact of the NGEIR Decision dated November 7, 2006 was expected to be a net benefit to ratepayers. Please provide a breakdown of how Union proposes to include that net benefit (including the impact of changes in storage margin percentages) in rates during the IR period. If Union is proposing that the increases in rates associated with storage margins should be adjusted, but offsetting benefits to ratepayers should not be adjusted, please provide your justification for that proposal.

Response:

As noted in the Board Decision (page 50) "...further development of storage in Ontario would be of benefit to Ontario consumers in terms of reduced price volatility, enhanced security of supply and an overall enhanced competitive market at Dawn."

Also refer to interrogatory response provided at Exhibit C3/C16/C33.21.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/16

Issues 8.1 - What is the appropriate plan term for each utility?

Question:

Please advise whether Union would be comfortable with a plan term longer than five years, such as ten years. Please advise what changes, if any, would have to be made to Union's application to make a ten year IR period acceptable to Union.

Response:

Union's preference is for a 5 year term. Union has not evaluated a 10 year term. Union's proposal is consistent with the Board's NGF Report. Page 29 of the NGF Report states that, "the Board expects that the term of the IR plans will be between three and five years".

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/16

Issues 8.1 - What is the appropriate plan term for each utility?

Question:

Please advise whether, in planning during an IR period, the term of the plan is a material consideration in deciding the timing of efficiency investments within the IR period. By way of example, is it reasonable to expect a utility to focus efficiency investments in the first year or two of the plan, in order to maximize the time the shareholder has to reap the rewards, but reduce efficiency investments in the later years since the benefits will be more limited?

Response:

Please see interrogatory response provided at Exhibit C1.4.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/32

Issues 10.1 - Should an ESM be included in the IR plan?

Question:

Please advise how the lack of a stretch factor, and deferral of ratepayer benefits until rebasing, is consistent with the following statement at page 3 the Natural Gas Forum report:

"The Board does not intend for earnings sharing mechanisms to form part of IR plans. The Board views the retention of earnings by a utility within the term of an IR plan to be a strong incentive for the utility to achieve sustainable efficiencies. The Board will ensure that the benefits of the efficiencies are shared with customers through the annual adjustment mechanism and through rebasing.' [emphasis added]

Response:

Union's rationale for why there should be no stretch factor can be found at Exhibit B, Tab 1, pp. 31-34 of Union's evidence. For an explanation of the rationale for why there should be no ESM please see interrogatory response provided at Exhibit C1.15.

Also see interrogatory response provided at Exhibit C1.4.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/44

Issues 11.1 - What information should the Board consider and stakeholders be provided with during the IR plan?

Question:

Please provide a summary of the utility's annual corporate budgeting process, including major steps, responsibilities, information available at each step, and the actual dates of each step in 2007. Please include a description of how the utility's budget process is related to, or integrates with, the budgeting of some or all of the other members of the parent company's corporate group.

Response:

Union's capital and operating budget processes were described in detail in the EB-2005-0520 proceeding at Exhibit A2, Tab 2, Schedule 1.

The following table summarizes the timing of the major steps in the budget process.

Step	Timing
Preparation of Economic Outlook	January 2 to February 28, 2007
Senior Management Review and Approval	March 20, 2007
of Outlook	
Preparation of Operating Budget	April 26 to September 6, 2007
Capital Budget Project Identification,	April 26 to September 16, 2007
Specification and Costing	
Management Review and Approval of	September 6, 2007
Operating Budget	
Management Review and Approval of	September 16, 2007
Capital Budget	
Union Senior Management Review and	October 10, 2007
Approval of Corporate and Utility Budget	
Submission of Budget to Spectra Energy	October 12, 2007
Presentation of Budget to Board of	December 11, 2007
Directors	

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/43

Issues 11.1 - What information should the Board consider and stakeholders be provided with during the IR plan?

Question:

Please provide the last two quarterly, and the last annual, RRR filing of Union.

Response:

Union's last annual Reporting and Recordkeeping Requirements ("RRR") filing is filed electronically. The results are available online at http://www.oeb.gov.on.ca/documents/abouttheoeb/yearbook.

Quarterly filings are a combination of actual results and approved forecasts as required by the OEB's RRR. These reports are confidential.

Union's actual quarterly financial information is available online at http://www.sedar.com.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/17

Issues 12.3 - Changes in rate design.

Question:

Please confirm that Union's proposal for flexibility to adjust the fixed charge would include an application to the Board, supporting evidence including customer impacts, an opportunity for ratepayers and other stakeholders to ask interrogatories and participate fully in the application, and a hearing (oral or written) for the Board to determine the issues.

Response:

As indicated at Exhibit B, Tab 1 page 45 of Union's evidence:

"If the rate-related changes are minor in nature and customer impacts are minimal, these changes could be included in the rate setting filing. However, if the rate-related changes are significant and require a longer review period, a separate application would need to be made".

The Board will determine what process will be followed to deal with rate applications of this nature.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/17

Issues 12.3 - Changes in rate design.

Question:

Please provide Union's current plan for changes to the fixed charges (for each rate class that would be affected), including the forecast rates for each of the years 2008 through 2012, and the forecast customer bill impacts for each such year for each class and sample customer normally used in such forecasts.

Response:

Please see interrogatory response provided at Exhibit C1.21 a).

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/17

Issues 12.3 - Changes in rate design.

Question:

Please give other examples, aside from changes to the fixed charge, of ways in which *Union wishes to be able to change the design of existing rates during the IR period.*

Response:

As indicated at Exhibit B, Tab1, pp. 17 and 18 of Union's evidence, Union requires the flexibility to respond to changes in the marketplace by developing new services and by making necessary changes to existing services when required. Union does not have any specific plans for changes to its rate design, with the exception of the approved M2 rate class split, during the incentive regulation term.

A recent example of where Union used its flexibility to respond to changes in the market place by developing new services is the Firm Dawn to Dawn-Vector rate approved by the Board on June 28, 2007. Union applied for the Firm Dawn to Dawn Vector Rate in response to a customer request for firm service that wasn't previously available after the completion of the 2007 rates proceeding.

Ouestion: August 16, 2007 Answer: September 4, 2007 EB-2007-0606 Docket:

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/17

Issues 12.3 - Changes in rate design.

Question:

Please provide all studies, analyses, plans, forecasts, and other documents, physical or electronic, related to intended or expected or proposed changes in rate design during any of the years 2008 through 2012, including but not limited to any impact analyses of such changes.

Response:

Union has no studies, analyses, plans, forecasts and other documents, physical or electronic related to intended or expected or proposed changes in rate design over the incentive regulation term.

The M1/M2 split of the M2 rate class was approved by the Board for implementation in 2008 as part of the Board's EB-2005-0520 Decision. All materials in support of that rate design change were filed as part of the EB-2005-0520 rates proceeding and EB-2005-0520 Rate Order Working Papers.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/41

Issues 12.4 - Non-energy services.

Question:

Please confirm that Union would, under this proposal, be limited to changes that are revenue neutral. If not, please advise the criteria under which Union would be allowed to increase its overall revenue through these charges.

Response:

Changes to miscellaneous non-energy charges would be driven primarily by changes in the cost of providing the service. If Union requires any changes to its miscellaneous nonenergy service charges during the plan term, Union will provide the Board with evidence that supports the proposed change.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference:

Issues 14.1 - Are there adjustments that should be made to base year revenue requirements and/or rates?

Question:

Please advise whether Union has looked at the tax impacts of changing its corporate structure (for example, to that of an income trust or a partnership) during any period that would include any IR period. If so, please provide copies of any plans, forecasts, internal proposals, or other documents related to any such potential change in corporate structure.

Response:

Union has not examined the tax impacts of changing its corporate structure. Union also notes that any such change would likely require the approval of the Board.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference:

Issues 14.1 - Are there adjustments that should be made to base year revenue requirements and/or rates?

Question:

Please provide a detailed breakdown of the expected opening rate base for Union on January 1, 2008, by asset category, together with the depreciation and cost of capital amounts that would result from that rate base (without accounting for any additions) during the years 2008 through 2012 inclusive. Please include a continuity chart showing the opening rate base in each subsequent year, by asset category. Please break down the annual costs by rate class using the current cost allocation percentages for 2007.

Response:

Please see attached schedules.

Rate Base Calculation (\$ millions)

		<u>2007</u>		<u>2008</u>		2009		<u>2010</u>
Gross	\$	5,192	\$	5,440	\$	5,405	\$	5,369
Accumulated depreciation		1,961		2,153		2,296		2,439
Net book value		3,231		3,287		3,109		2,931
Working capital								
O&M Working Capital		25		25		25		25
Gas Purchase Working Capital		8		8		8		8
Gas in Storage		175		175		175		175
Linepack		14		14		14		14
Balancing Gas		130		130		130		130
Inventory of Stores and Spare Equipment		29		29		29		29
Merchandise Accounts Receivable		(54)		(54)		(54)		(54)
Prepaid and Deferred Expense		3		3		3		3
Customer Deposits		(44)		(44)		(44)		(44)
Accumulated deferred taxes		(170)	_	(154)	_	(137)		(119)
Rate Base	<u>\$</u>	3,345	<u>\$</u>	3,418	<u>\$</u>	3,256	<u>\$</u>	3,096
Depreciation	<u>\$</u>	170	\$	177	<u>\$</u>	177	\$	177
Capital Structure (\$)								
Long-term debt	\$	2,122	\$	1,999	\$	1,928	\$	1,804
Short-term debt		(90)	·	79	·	47		68
Total debt		2,032		2,078		1,975		1,872
Preference		109		109		109		109
Common		1,204		1,230		1,172		1,114
Total	\$	3,345	\$	3,418	\$	3,256	\$	3,096

Rate Base by Rate Class Using 2007 Cost Study Percentages (\$ millions)

	<u>2007</u>	<u>2008</u>		<u>2009</u>		2010
M1	\$ 1,343	\$ 1,372	\$	1,307	\$	1,242
M2	204	209		199		189
M4	54	56		53		50
M5 Firm	4	4		4		4
M5 Interruptible	30	30		29		27
M7 Firm	33	33		32		30
M7 Interruptible	1	1		1		1
M9	3	3		3		3
M10	0	0		0		0
T1 Firm	154	157		150		142
T1 Interruptible	12	12		11		11
T3	20	20		19		18
C1 Firm Transportation	2	2		2		2
C1 Interruptible Transportation & Exchanges	1	1		1		1
M12	652	666		634		603
M13	1	1		1		1
M16	1	1		1		1
R01	574	587		559		532
R10	106	108		103		98
R20	55	56		54		51
R100	73	74		71		67
R25	25	25		24		23
R77	 0	 0		0		0
	\$ 3,345	\$ 3,418	\$	3,256	\$	3,096

Answer to Interrogatory from School Energy Coalition "SEC"

Reference:

Issues 14.1 - Are there adjustments that should be made to base year revenue requirements and/or rates?

Question:

Please restate the breakdowns, result, and continuity chart in the last question, but for each of the years 2008 through 2012 adding capital expenditures in each asset category equal to the average actual (with 2007 as forecast) capital expenditures in each such category for the years 2003 – 2007 inclusive.

Response:

Please see attached schedule.

Rate Base Calculation (\$ millions)

		<u>2007</u>		<u>2008</u>		<u>2009</u>		<u>2010</u>
Gross Accumulated depreciation	\$	5,192 1,961	\$	5,559 2,155	\$	5,768 2,305	\$	5,977 2,461
Net book value		3,231		3,404		3,463		3,516
Working capital								
O&M Working Capital		25		25		25		25
Gas Purchase Working Capital		8		8		8		8
Gas in Storage		175		175		175		175
Linepack		14		14		14		14
Balancing Gas		130		130		130		130
Inventory of Stores and Spare Equipment		29		29		29		29
Merchandise Accounts Receivable		(54)		(54)		(54)		(54)
Prepaid and Deferred Expense		3		3		3		3
Customer Deposits		(44)		(44)		(44)		(44)
Accumulated deferred taxes		(170)	_	(154)		(137)	_	(119)
Rate Base	<u>\$</u>	3,345	<u>\$</u>	3,535	<u>\$</u>	3,611	<u>\$</u>	3,681
Depreciation	\$	170	<u>\$</u>	181	<u>\$</u>	188	<u>\$</u>	195
Capital Structure (\$)								
Long-term debt	\$	2,122	\$	2,072	\$	2,215	\$	2,292
Short-term debt		(90)		81		(13)		(45)
Total debt		2,032		2,153	_	2,202		2,246
Preference		109		109		109		109
Common		1,204		1,273		1,300		1,325
Total	\$	3,345	\$	3,535	\$	3,611	\$	3,681

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/11

Issues 14.2 - If so, how should these adjustments be made?

Question:

Please file detailed calculations showing the split of rate M2 into rates M1 and M2, including cost allocation model, rate schedules, customer bill impacts, and revenue impacts, all in the standard form filed by Union in each cost of service application as Exhibit H.

Response:

Under a price cap incentive regulation framework, cost allocation studies are not prepared in support of rates. Please see interrogatory response provided at Exhibit C2.2 a).

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/11

Issues - CIS/Customer Care Application.

Question:

Please advise whether Union has any intention or expectation of acquiring a new CIS after 2007 and prior to 2018. If so, please provide copies of any plans, forecasts, internal proposals, or other documents relating to those intentions or expections, or the impacts (including any tax impacts) thereof.

Response:

Union has contracted its CIS system to a 3rd party (Alliance Data) until the end of 2011, with an option to extend the contract on a year to year basis. Although Union anticipates conducting a market review of CIS providers prior to expiry of the contract, there are no current plans to acquire a new CIS system. As such there are no associated plans, forecasts, internal proposals or other related documents.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/11

Issues - CIS/Customer Care Application.

Question:

Please advise whether Union has any intention or expectation of implementing any other major IT software or hardware project having a total capital cost in excess of \$10 million after 2007 and prior to 2018. If so, please provide copies of any plans, forecasts, internal proposals, or other documents relating to those intentions or expectations, or the impacts (including tax impacts) thereof.

Response:

Union currently has no specific plans for any major IT software or hardware projects having a total capital cost in excess of \$10 million between 2007 and prior to 2018.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference: B/1/48

General Questions

Question:

Please advise Union's proposal for implementation of 2008 rates in the event that those rates constitute an increase, but due to the schedule for this proceeding a rate order cannot be made available until June 1, 2008.

Response:

Please see interrogatory response provided at Exhibit C1.17.

Answer to Interrogatory from School Energy Coalition "SEC"

Reference:

General Questions

Ouestion:

Please take Exhibit H2, Tab 7, filed by Enbridge in EB-2006-0034 and apply to each of the examples there the approved rates for Union for each of 2006 and 2007. If for any of the sample customers in that Exhibit Union is unable to determine what the appropriate rates are to apply, please explain the nature of the difficulty and the likeliest correct answer, in your opinion.

Response:

The attached schedules for 2006 and 2007 reflect the following:

- 1. Union's monthly volume profile has been applied to Enbridge's annual volume illustrations in EB-2006-0034;
- 2. Contract rate comparisons (Union's Rate M4 and Rate M7) use a typical customer forecast with the identified load factor as a proxy;
- 3. The line item build-up of the annual bill matches the applicable Union rate schedule, i.e. since Union, unlike Enbridge, does not have a separate loadbalancing line on the bill, this line will not appear in the Union illustration;
- 4. Delivery includes delivery commodity and storage charges for Rate M2 illustrations. Prospective delivery price adjustments are included in all illustrations:
- 5. Gas Supply includes all upstream charges to Union including commodity and fuel, transportation to Union Gas, and prospective gas supply price adjustments;
- 6. Since Union retired the seasonal firm Rate M6A service in 2007, there is no comparable illustration to Enbridge's Seasonal Firm service;
- 7. Customers with annual volume less than 700,000 m³ are only eligible for Union's General Service Rate M2;
- 8. Union's large volume, large industrial interruptible service is a negotiated rate service. Union has used a class average interruptible price for this illustration;
- 9. All bill illustrations are based on Union's bundled rates. Customers with annual volume of at least 5,000,000 m³ would also be eligible for Union's semi-bundled Rate T1 storage and transportation service; and
- 10. The heat value conversion used in Union's illustrations is 36.78GJ/10³m³.

Question: August 16, 2007 September 4, 2007 Answer: EB-2007-0606 Docket:

Annual Bill Comparison - Residential Customers - M2 Rate Class

		1	Heating &	Water Heati	ng			Heating	Water He	ating & Oth	er Uses
	Units	2007	2006	Change	%		Units	2007	2006	Change	%
Volume	m3	3,064	3,064	-	0%	Volume	m3	4,691	4,691	-	0%
Monthly Customer Charge	\$	192	168	24.00	12.5%	Monthly Customer Charge	\$	192	168	24.00	12.5%
Delivery Charges	\$	185	201	(15.88)	-7.9%	Delivery Charges	\$	284	308	(24.37)	-7.9%
Gas Supply Charges	\$	952	1,386	(433.80)	-31.3%	Gas Supply Charges	\$	1,458	2,122	(664.17)	-31.3%
Total Bill	\$	1,330	1,756	(425.68)	-32.0%	Total Bill	\$	1,934	2,599	(664.54)	-34.4%
Total Delivery Bill	\$	377	369	8.12	2.2%	Total Delivery Bill	\$	476	476	(0.37)	-0.1%
Total Unit Rate	\$/m3	0.434	0.573	(0.14)	-32.0%	Total Unit Rate	\$/m3	0.412	0.554	(0.14)	-34.4%
Delivery Unit Rate	\$/m3	0.123	0.121	0.00	2.2%	Delivery Unit Rate	\$/m3	0.101	0.102	(0.00)	-0.1%
Total Unit Rate	\$/GJ	11.519	15.206	(3.69)	-32.0%	Total Unit Rate	\$/GJ	10.942	14.701	(3.76)	-34.4%
Delivery Unit Rate	\$/GJ	3.269	3.199	0.07	2.2%	Delivery Unit Rate	\$/GJ	2.692	2.694	(0.00)	-0.1%
			Heati	ng Only				Н	eating & V	/ater Heating	;
	Units	2007	2006	Change	<u>%</u>		Units	2007	2006	Change	%
Volume	m3	1,955	1,955	-	0%	Volume	m3	2,005	2,005	-	0%
Monthly Customer Charge	\$	192	168	24.00	12.5%	Monthly Customer Charge	\$	192	168	24.00	12.5%
Delivery Charges	\$	118	128	(10.17)	-7.9%	Delivery Charges	\$	121	132	(10.41)	-7.9%
Gas Supply Charges	\$	608	885	(276.79)	-31.3%	Gas Supply Charges	\$	623	907	(283.88)	-31.3%
Total Bill	\$	918	1,181	(262.96)	-28.6%	Total Bill	\$	937	1,207	(270.29)	-28.9%
Total Delivery Bill	\$	310	296	13.83	4.5%	Total Delivery Bill	\$	313	300	13.59	4.3%
Total Unit Rate	\$/m3	0.470	0,604	(0.13)	-28.6%	Total Unit Rate	\$/m3	0.467	0.602	(0.13)	-28.9%
Delivery Unit Rate	\$/m3	0.159	0.152	0.01	4.5%	Delivery Unit Rate	\$/m3	0.156	0.150	0.01	4.3%
Total Unit Rate	\$/GJ	12.462	16.032	(3.57)	-28.6%	Total Unit Rate	\$/GJ	12.397	15.975	(3.58)	-28.9%
Delivery Unit Rate	\$/GJ	4.212	4.024	0.19	4.5%	Delivery Unit Rate	\$/GJ	4,148	3.968	0.18	4.3%
		Heat	ting, Pool I	Htg & Other	Uses			·	General &	Water Htg.	
	Units	2007	2006	Change	%		Units	2007	2006	Change	<u>%</u> _
Volume	m3	5,048	5,048	-	0%	Volume	m3	1,081	1,081	-	0%
Monthly Customer Charge	\$	192	168	24.00	12.5%	Monthly Customer Charge	\$	192	168	24.00	12.5%
Delivery Charges	\$	305	332	(26.23)	-7.9%	Delivery Charges	\$	65	71	(5.64)	-7.9%
Gas Supply Charges	\$	1,569	2,284	(714.73)	-31.3%	Gas Supply Charges	\$	336	489	(153.04)	-31.3%
Total Bill	\$	2,067	2,784	(716.96)	-34.7%	Total Bill	\$	593	728	(134.68)	-22.7%
Total Delivery Bill	\$	497	500	(2.23)	-0.4%	Total Delivery Bill	\$	257	239	18.36	7.1%
Total Unit Rate	\$/m3	0.409	0,551	(0.14)	-34.7%	Total Unit Rate	\$/m3	0.549	0.674	(0.12)	-22.7%
Delivery Unit Rate	\$/m3	0.099	0.099	(0.00)	-0.4%	Delivery Unit Rate	\$/m3	0.238	0.221	0.02	7.1%
Total Unit Rate	\$/GJ	10.865	14.634	(3.77)	-34.7%	Total Unit Rate	\$/GJ	14.569	17.875	(18.8)	-22.7%
Delivery Unit Rate	\$/GJ	2.615	2.627	(0.01)	-0.4%	Delivery Unit Rate	\$/GJ	6.319	5.869	0.45	7.1%

Annual Bill Comparison - Commercial Customers - M2 Rate Class

Commercial	Heating	& Other	Uses

Com. Htg., Air Cond'ng & Other Uses

	Units	2007	2006	Change	<u>%</u>		Units	2007	2006	Change	
Volume	m3	22,606	22,606	-	0%	Volume	m3	29,278	29,278	-	0%
Monthly Customer Charge	\$	192	168	24.00	12.5%	Monthly Customer Charge	\$	192	168	24.00	12.5%
Delivery Charges	\$	1,267	1,327	(59.81)	-4.5%	Delivery Charges	\$	1,613	1,674	(61.45)	-3.7%
Gas Supply Charges	\$	7,027	10,228	(3,200.67)	-31.3%	Gas Supply Charges	\$	9,101	13,246	(4,145.34)	-31.3%
Total Bill	\$	8,486	11,722	(3,236.48)	-38.1%	Total Bill	\$	10,906	15,089	(4,182.79)	-38.4%
Total Delivery Bill	\$	1,459	1,495	(35.81)	-2.5%	Total Delivery Bill	\$	1,805	1,842	(37.45)	-2.1%
Total Unit Rate	\$/m3	0.375	0.519	(0.14)	-38.1%	Total Unit Rate	\$/m3	0.372	0.515	(0.14)	-38.4%
Delivery Unit Rate	\$/m3	0.065	0.066	(0.00)	-2.5%	Delivery Unit Rate	\$/m3	0.062	0.063	(0.00)	-2.1%
Total Unit Rate	\$/GJ	9.962	13.762	(3.80)	-38.1%	Total Unit Rate	\$/GJ	9.886	13.677	(3.79)	-38.4%
Delivery Unit Rate	\$/GJ	1.713	1.755	(0.04)	-2.5%	Delivery Unit Rate	\$/GJ	1.636	1.670	(0.03)	-2.1%

Medium Commercial Customer

Large Commercial Customer

	Units	2007	2006	Change	<u>%</u>		Units	2007	2006	Change	<u>%</u>
Volume	m3	169,563	169,563	-	0%	Volume	m3	339,125	339,125	-	0%
Monthly Customer Charge	\$	192	168	24.00	12.5%	Monthly Customer Charge	\$	192	168	24.00	12.5%
Delivery Charges	\$	7,567	7,407	160.04	2.2%	Delivery Charges	\$	14,385	13,893	492.00	3.5%
Gas Supply Charges	\$	52,707	76,714	(24,007.00)	-31.3%	Gas Supply Charges	\$	105,414	153,429	(48,015.00)	-31.3%
Total Bill	\$	60,466	84,289	(23,822.96)	-39.4%	Total Bill	\$	119,991	167,490	(47,499.00)	-39.6%
Total Delivery Bill	\$	7,759	7,575	184.04	2.4%	Total Delivery Bill	\$	14,577	14,061	516.00	3.5%
Total Unit Rate	\$/m3	0.357	0.497	(0.14)	-39.4%	Total Unit Rate	\$/m3	0.354	0.494	(0.14)	-39.6%
Delivery Unit Rate	\$/m3	0.046	0.045	0.00	2.4%	Delivery Unit Rate	\$/m3	0.043	0.041	0.00	3.5%
Total Unit Rate	\$/GJ	9.464	13.193	(3.73)	-39.4%	Total Unit Rate	\$/GJ	9.390	13.107	(3.72)	-39.6%
Delivery Unit Rate	\$/GJ	1.214	1.186	0.03	2.4%	Delivery Unit Rate	\$/GJ	1.141	1.100	0.04	3.5%

Annual Bill Comparison - Industrial Customers - M2 Rate Class

			Industrial (General Use				Indi	ustrial Heati	ng & Other Use	es
	Units	2007	2006	Change			Units	2007	2006	Change	<u>%</u>
Volume	m3	43,285	43,285	-	0%	Volume	m3	63,903	63,903	-	0%
Monthly Customer Charge	\$	192	168	24.00	12.5%	Monthly Customer Charge	\$	192	168	24.00	12.5%
Delivery Charges	\$	2,346	2,415	(69.10)	-2.9%	Delivery Charges	\$	3,285	3,328	(43.00)	-1.3%
Gas Supply Charges	\$	13,455	19,583	(6,128.00)	-31.3%	Gas Supply Charges	\$	19,864	28,911	(9,047.00)	-31.3%
Total Bill	\$	15,993	22,166	(6,173.10)	-38.6%	Total Bill	\$	23,341	32,407	(9,066.00)	-38.8%
Total Delivery Bill	\$	2,538	2,583	(45.10)	-1.8%	Total Delivery Bill	\$	3,477	3,496	(19.00)	-0.5%
Total Unit Rate	\$/m3	0.369	0.512	(0.14)	-38.6%	Total Unit Rate	\$/m3	0.365	0.507	(0.14)	-38.8%
Delivery Unit Rate	\$/m3	0.059	0.060	(0.00)	-1.8%	Delivery Unit Rate	\$/m3	0.054	0.055	(0.00)	-0.5%
Total Unit Rate	\$/GJ	9.806	13.591	(3.78)	-38.6%	Total Unit Rate	\$/GJ	9.694	13.459	(3.77)	-38.8%
Delivery Unit Rate	\$/GJ	1.556	1.584	(0.03)	-1.8%	Delivery Unit Rate	\$/GJ	1.444	1.452	(0.01)	-0.5%
		N	ledium Indus	strial Customer]	Large Indust	rial Customer	
	Units	2007	2006	Change			Units	2007	2006	Change	
Volume	m3	169,563	169,563	-	0%	Volume	m3	339,124	339,124	-	0%
Monthly Customer Charge	\$	192	168	24.00	12.5%	Monthly Customer Charge	\$	192	168	24.00	12.5%
Delivery Charges	\$	7,659	7,511	148.00	2.0%	Delivery Charges	\$	14,385	13,893	492.00	3.5%
Gas Supply Charges	\$	52,707	76,714	(24,007.00)	-31.3%	Gas Supply Charges	\$	105,414	153,429	(48,015.00)	-31.3%
Total Bill	\$	60,558	84,393	(23,835.00)	-39.4%	Total Bill	\$	119,991	167,490	(47,499.00)	-39.6%
Total Delivery Bill	\$	7,851	7,679	172.00	2.2%	Total Delivery Bill	\$	14,577	14,061	516.00	3.5%
Total Unit Rate	\$/m3	0.357	0.498	(0.14)	-39.4%	Total Unit Rate	\$/m3	0.354	0.494	(0.14)	-39.6%
Delivery Unit Rate	\$/m3	0.046	0.045	0.00	2.2%	Delivery Unit Rate	\$/m3	0.043	0.041	0.00	3.5%
Total Unit Rate	\$/GJ	9,478	13.209	(3.73)	-39.4%	Total Unit Rate	\$/GJ	9.390	13.107	(3.72)	-39.6%
Delivery Unit Rate	\$/GJ	1.229	1.202	0.03	2.2%	Delivery Unit Rate	\$/GJ	1.141	1.100	0.04	3.5%

Annual Bill Comparison - Large Volume Customers - M2 Rate Class

		Large \	√olume - Sm	all Commercia	Firm			Large Ve	olume - Aver	rage Commerci	al Firm
	Units	2007	2006	Change	%		Units	2007	2006	Change	%
Volume	m3	339,188	339,188	-	0%	Volume	m3	598,568	598,568	-	0%
Monthly Customer Charge	\$	192	168	24.00	12.5%	Monthly Customer Charge	\$	192	168	24.00	12.5%
Delivery Charges	\$	14,387	13,895	492.00	3.5%	Delivery Charges	\$	24,676	23,657	1,019.00	4.3%
Gas Supply Charges	\$	105,433	153,458	(48,025.00)	-31.3%	Gas Supply Charges	\$	186,059	270,808	(84,749.00)	-31.3%
Total Bill	\$	120,012	167,521	(47,509.00)	-39.6%	Total Bill	\$	210,927	294,633	(83,706.00)	-39.7%
Total Delivery Bill	\$	14,579	14,063	516.00	3.5%	Total Delivery Bill	\$	24,868	23,825	1,043.00	4.2%
Total Unit Rate	\$/m3	0.354	0.494	(0.14)	-39.6%	Total Unit Rate	\$/m3	0.352	0.492	(0.14)	-39.7%
Delivery Unit Rate	\$/m3	0.043	0.041	0.00	3.5%	Delivery Unit Rate	\$/m3	0.042	0.040	0.00	4.2%
Total Unit Rate	\$/GJ	9.390	13.107	(3.72)	-39.6%	Total Unit Rate	\$/GJ	9.352	13,063	(3.71)	-39.7%
Delivery Unit Rate	\$/GJ	1.141	1.100	0.04	3.5%	Delivery Unit Rate	\$/GJ	1.103	1.056	0.05	4.2%
		Large	Voluma Si	nall Industrial	Firm			I arga V	Jaluma Au	erage Industria	l Eirm
		Large	voiunie - Si	nan muusutat	CHIII			Large	orume - Av	çıagç muusuta	i rum
	Units	2007	2006	Change	%		Units	2007		Change	%
Volume	m3	339,188	339,188	-	0%	Volume	m3	598,567	598,567	-	0%
Monthly Customer Charge	\$	192	168	24.00	12.5%	Monthly Customer Charge	\$	192	168	24.00	12.5%
Delivery Charges	\$	14,388	13,895	493.00	3.5%	Delivery Charges	\$	24,676	23,657	1,019.00	4.3%
Gas Supply Charges	\$	105,434	153,458	(48,024.00)	-31.3%	Gas Supply Charges	\$	186,059	270,808	(84,749.00)	-31.3%
Total Bill	\$	120,014	167,521	(47,507.00)	-39.6%	Total Bill	\$	210,927	294,633	(83,706.00)	-39.7%
Total Delivery Bill	\$	14,580	14,063	517.00	3.5%	Total Delivery Bill	\$	24,868	23,825	1,043.00	4.2%
Total Unit Rate	\$/m3	0.354	0.494	(0.14)	-39.6%	Total Unit Rate	\$/m3	0.352	0.492	(0.14)	-39.7%
Delivery Unit Rate	\$/m3	0.043	0.041	0.00	3.5%	Delivery Unit Rate	\$/m3	0.042	0.040	0.00	4.2%
Total Unit Rate	\$/GJ	9.390	13.107	(3.72)	-39.6%	Total Unit Rate	\$/GJ	9.352	13.063	(3.71)	-39.7%

Delivery Unit Rate

\$/GJ

1.103

1.056

0.05

4.2%

Delivery Unit Rate

\$/GJ

1.141

1.100

0.04

3.5%

Annual Bill Comparison - Large Volume Customers - Miscellaneous Rate Classes

Large Volume - Small Industrial Firm - M2

Delivery Unit Rate

\$/GJ

0.706

0.642

Large Volume - Avg Ind Firm - 50% LF - M4

0.351

(0.01)

-2.0%

		-						•			
	Units	2007	2006	Change			Units	2007	2006	Change	<u>%</u>
Volume	m3	598,568	598,568	-	0%	Volume	m3	9,976,121	9,976,121	-	0%
Monthly Customer Charge	\$	192	168	24.00	12.5%	Monthly Demand Charge	\$	142,470	130,841	11,629.00	8.2%
Delivery Charges	\$	24,676	23,657	1,019.00	4.3%	Delivery Commodity Charge	\$	77,227	72,599	4,628.00	6.4%
Gas Supply Charges	\$	186,059	270,809	(84,750.00)	-31.3%	Gas Supply Charges	\$	3,474,164	4,513,466	(1,039,302.00)	-23.0%
Total Bill	\$	210,927	294,634	(83,707.00)	-39.7%	Total Bill	\$	3,693,861	4,716,906	(1,023,045.00)	-27.7%
Total Delivery Bill	\$	24,868	23,825	1,043.00	4.2%	Total Delivery Bill	\$	219,697	203,440	16,257.00	7.4%
Total Unit Rate	\$/m3	0.352	0.492	(0.14)	-39.7%	Total Unit Rate	\$/m3	0.370	0.473	(0.10)	-27.7%
Delivery Unit Rate	\$/m3	0.042	0.040	0.00	4.2%	Delivery Unit Rate	\$/m3	0.022	0.020	0.00	7.4%
Total Unit Rate	\$/GJ	9.352	13.063	(3.71)	-39.7%	Total Unit Rate	\$/GJ	9.827	12.548	(2.72)	-27.7%
Delivery Unit Rate	\$/GJ	1.103	1.056	0.05	4.2%	Delivery Unit Rate	\$/GJ	0.584	0.541	0.04	7.4%
		Large V	olume - Avg Iı	nd Firm - 75% LF	- M4			Large Vo	lume - Large In	nd Firm - 80% LF -	- M7
	Units	2007	2006	Change			Units	2007	2006	Change	<u>%</u>
Volume	m3										
	1113	9,976,120	9,976,120	-	0%	Volume	m3	69,832,850	69,832,850	-	0%
Monthly Demand Charge	\$	9,976,120	9,976,120 175,873	19,938.00	0% 10.2%	Volume Monthly Demand Charge	m3 \$	69,832,850 742,922	69,832,850 723,196	- 19,726.00	0% 2.7%
Monthly Demand Charge Delivery Commodity Charg	\$			19,938.00 4,322.00					, ,	- 19,726.00 (37,500.00)	
,	\$	195,811	175,873	,	10.2%	Monthly Demand Charge	\$	742,922	723,196	,	2.7%
Delivery Commodity Charg	\$ e \$	195,811 69,699	175,873 65,377	4,322.00	10.2% 6.6%	Monthly Demand Charge Delivery Commodity Charge	\$ \$	742,922 161,873	723,196 199,373	(37,500.00)	2.7% -18.8%
Delivery Commodity Charg Gas Supply Charges	\$ e \$ \$	195,811 69,699 3,474,164	175,873 65,377 4,513,466	4,322.00 (1,039,302.00)	10.2% 6.6% -23.0%	Monthly Demand Charge Delivery Commodity Charge Gas Supply Charges	\$ \$ \$	742,922 161,873 24,319,150	723,196 199,373 31,594,267	(37,500.00) (7,275,117.00)	2.7% -18.8% -23.0%
Delivery Commodity Charg Gas Supply Charges Total Bill	\$ e \$ \$	195,811 69,699 3,474,164 3,739,674	175,873 65,377 4,513,466 4,754,716	4,322.00 (1,039,302.00) (1,015,042.00)	10.2% 6.6% -23.0%	Monthly Demand Charge Delivery Commodity Charge Gas Supply Charges Total Bill	\$ \$ \$	742,922 161,873 24,319,150 25,223,945	723,196 199,373 31,594,267 32,516,836	(37,500.00) (7,275,117.00) (7,292,891.00)	2.7% -18.8% -23.0% -28.9%
Delivery Commodity Charg Gas Supply Charges Total Bill Total Delivery Bill	\$ e \$ \$ \$	195,811 69,699 3,474,164 3,739,674 265,510	175,873 65,377 4,513,466 4,754,716 241,250	4,322.00 (1,039,302.00) (1,015,042.00) 24,260.00	10.2% 6.6% -23.0% -27.1% 9.1%	Monthly Demand Charge Delivery Commodity Charge Gas Supply Charges Total Bill Total Delivery Bill	\$ \$ \$ \$	742,922 161,873 24,319,150 25,223,945 904,795	723,196 199,373 31,594,267 32,516,836 922,569	(37,500.00) (7,275,117.00) (7,292,891.00) (17,774.00)	2.7% -18.8% -23.0% -28.9% -2.0%
Delivery Commodity Charg Gas Supply Charges Total Bill Total Delivery Bill Total Unit Rate	\$ e \$ \$ \$ \$ \$	195,811 69,699 3,474,164 3,739,674 265,510 0.375	175,873 65,377 4,513,466 4,754,716 241,250 0.477	4,322.00 (1,039,302.00) (1,015,042.00) 24,260.00 (0.10)	10.2% 6.6% -23.0% -27.1% 9.1%	Monthly Demand Charge Delivery Commodity Charge Gas Supply Charges Total Bill Total Delivery Bill Total Unit Rate	\$ \$ \$ \$ \$	742,922 161,873 24,319,150 25,223,945 904,795 0.361	723,196 199,373 31,594,267 32,516,836 922,569 0.466	(37,500.00) (7,275,117.00) (7,292,891.00) (17,774.00) (0.10)	2.7% -18.8% -23.0% -28.9% -2.0%

9.1%

0.06

Delivery Unit Rate

\$/GJ

0.344

Annual Bill Comparison - Large Volume Customers - Miscellaneous Rate Classes

Large Volume - Avg Ind Interr - 50% LF - M5A

	Units	2007	2006	Change			Units	2007	2006	Change	%
Volume	m3	598,567	598,567			Volume	m3	9,976,121	9,976,121	-	0%
Monthly Demand Charge Delivery Charge Gas Supply Charge	\$ \$ \$		_	an Applicable Sea w for a Compariso		Monthly Customer Charge Delivery Commodity Charge Gas Supply Charges	\$ \$ \$	6,000 176,990 3,474,164	6,000 177,628 4,513,466	0.00 (638.00) (1,039,302.00)	0.0% -0.4% -23.0%
Total Revenue Total Delivery Revenue	\$ \$					Total Bill Total Delivery Bill	\$ \$	3,657,154 182,990	4,697,094 183,628	(1,039,940.00) (638.00)	-28.4% -0.3%
Total Unit Rate Delivery Unit Rate	\$/m3 \$/m3					Total Unit Rate Delivery Unit Rate	\$/m3 \$/m3	0.367 0.018	0.471 0.018	(0.10) (0.00)	-28.4% -0.3%
Total Unit Rate Delivery Unit Rate	\$/GJ \$/GJ					Total Unit Rate Delivery Unit Rate	\$/GJ \$/GJ	9.729 0.487	12.496 0.489	(2.77) (0.00)	-28.4% -0.3%
Large Volume - Avg Ind Interr - 75% LF - M5A											
		Large Vo	lume - Avg Inc	d Interr - 75% LF	- M5A			Large Vo	lume - Large In	d Interr - 75% LF	- M7
	Units	Large Vo. 2007	2006	d Interr - 75% LF -	- M5A 		Units	Large Vo	2006	d Interr - 75% LF Change	- M7
Volume	Units m3		, and the second			Volume	Units m3	J			
Volume Monthly Customer Charge Delivery Commodity Charge Gas Supply Charges	m3	2007	2006		%	Volume Monthly Demand Charge Delivery Commodity Charge Gas Supply Charges		2007	2006		
Monthly Customer Charge Delivery Commodity Charge	m3 \$ \$	2007 9,976,120 6,000 176,990	2006 9,976,120 6,000 177,628	Change - 0.00 (638.00)	0% 0.0% -0.4%	Monthly Demand Charge Delivery Commodity Charge	m3 \$ \$	2007 69,832,850 - 819,907	2006 69,832,850 - 894,070	Change - 0.00 (74,163.00)	0% 0% -8.3%
Monthly Customer Charge Delivery Commodity Charge Gas Supply Charges Total Bill	m3 \$ \$ \$ \$	2007 9,976,120 6,000 176,990 3,474,164 3,657,154	2006 9,976,120 6,000 177,628 4,513,466 4,697,094	Change 0.00 (638.00) (1,039,302.00) (1,039,940.00)	% 0% 0.0% -0.4% -23.0%	Monthly Demand Charge Delivery Commodity Charge Gas Supply Charges Total Bill	m3 \$ \$ \$ \$	2007 69,832,850 819,907 24,319,150 25,139,057	2006 69,832,850 894,070 31,594,267 32,488,337	Change 0.00 (74,163.00) (7,275,117.00) (7,349,280.00)	% 0% 0% -8.3% -23.0%

Answer to Interrogatory from School Energy Coalition "SEC"

Issues 1.4, 3.3, 4, 5, and 6

Question:

Please provide all forecasts, budgets, projections, estimates, plans, strategic planning documents, research and other documents in your possession or the possession of any of your affiliated companies, containing information relating to the revenues, expenditures (operating, capital, depreciation, taxes, cost of capital or otherwise) or other business conditions or input or output prospects affecting or expected to effect Union Gas Limited during the period 2008 through 2012 or any part thereof.

Response:

Union's utility forecast for the period 2008 to 2010 is provided in the attached schedules. This high level forecast was incorporated into the Spectra Energy financial forecast that was presented to Spectra Energy's Board of Directors on June 19, 2007. It has been presented and approved by Union's senior management.

This process did not involve the preparation and presentation of the type of detailed information schedules that would be provided in either a cost of service rates proceeding or a detailed operating budget. Management's detailed operating budget for 2008 will not be complete until mid December.

For comparison purposes the 2007 Board approved forecast has been adjusted to remove the revenues and costs allocated to the unregulated storage operations in the 2007 approved cost allocation study to arrive at a restated approved utility forecast for 2007.



2008 - 2010

<u>Schedule</u>	Content
1	Key Assumptions
2	Utility Income Statement
3	Gas Distribution Margin
4	Transportation Revenue
5	Other Revenue
6	O&M
7	Total Capital Spending
8	Rate Base
9	Cost of Capital

Union Gas Limited 2008 to 2010 Utility Forecast Key Assumptions

Distribution Revenue

Core Market

Weather normal - based on 20 year trend

Rate of NAC decline 1.8%

<u>NAC</u>	<u>2008</u>	2009	<u>2010</u>
M2 Res	2,430	2,383	2,331
01 Res	2,478	2,420	2,355
M2 Com	16,528	16,273	16,000
01 Com	7,899	7,656	7,394

Distribution Margin

January 1, 2007 delivery rate. The 2007 delivery rates include the impacts of the following:

- 1. 2007 Cost of Service ROE @ 8.54%
- 2. \$7 million weather adjustment in 2008 for 20 year trend
- 3. LRAM is not rebased
- 4. Revenues reflect rate recovery of NGEIR implementation impacts

Cost of Gas

- Incremental compressor fuel and UFG expense assumed to be offset by customer supplied fuel (2008-10)
- UFG/throughput ratio of 0.511%
- Winter peaking cost of \$4 million /year (2008-10)
- Cost of gas reflects more updated commodity costs than what was included for the 2007 rates proceeding

O&M

Salary and wage increase of 3.75% per year Inflationary increase of 2.1% per year

Program and customer growth costs assumed to be offset by productivity

1% reduction in overheads capitalized

Exchange rate

CAD per USD	\$ 1.10
USD per CAD	\$ 0.9091

Financing

Short term borrowings

Borrowing limit	\$500 million
Interest rate	4.40%

Long term debt

New issue rate	2008-10	5.0%

Equity 36%

<u>Taxes</u>

Other taxes reflect phase-out of capital tax (2008-10)

Union Gas Limited 2008 - 2010 Utility Forecast Income Statement (\$ millions)

	-	2 Total		Approve		Itility	2	8008	2	<u> 2009</u>	2	2010
Operating Revenue												
Gas Sales Margin	\$	661	\$	-	\$	661	\$	674	\$	685	\$	697
Transportation and Storage Revenue		188		58		129		144		154		157
Storage premium subsidy - short-term		-		(14)		14		11		11		11
Storage premium subsidy - long-term		-		(19)		19		16		11		5
Other Revenue		24		-		24	~~~	25		25		25
Net Operating Revenue		873		25		848		870		887		896
Operating Expenses												
Operating and Maintenance		333		7		326		340		354		368
Depreciation		179		5		174		184		190		195
Property Tax		60		1		59		59		60		62
Capital Tax	***	9		0		8		8		6		2
Total Operating Expenses		580		13		567		591		610		627
Caminga Patara Interact & Tayon		293		12		281		280		276		269
Earnings Before Interest & Taxes Interest expense		159		5		154		155		153		152
Income before Income Taxes	_	134		7		127		124	-	124	_	117
Provision for Income Tax												
Current Income Tax		39		3		36		22		40		37
Deferred Income Tax		(17)		(1)		(16)		2		(17)		(18)
Total Provision		22		1		21		24		22		19
Net Income		112		6		106		100		101		98
Preferred Dividend Requirements		5		0		5		5		5		5
Earnings Applicable to Common Shares	\$	106	\$	6	\$	101	\$	95	\$	96	\$	93
Rate Base	\$	3,377	\$	106	\$	3,271	\$	3,539	\$	3,602	\$	3,703
Equity (36% of rate base)	\$	1,216	\$	38	\$	1,178	\$	1,274	\$	1,297	\$	1,333
ROE		8.75%		14.76%		8.56%		7.44%		7.43%		6.96%
(Sufficiency) Deficiency Remove S&T premium - 10%	\$	(4) 4	\$	(4) 4	\$	(0) 0	\$	21 0	\$	22 0	\$	31 0
Adjusted (sufficiency) deficiency	\$	0	\$	0	\$	0	\$	22	\$	22	\$	32
rajacto (camelone), achievery	-		<u> </u>		<u> </u>		<u> </u>		<u> </u>		<u> </u>	

<u>Union Gas Limited</u> 2008 - 2010 Utility Forecast Gas Distribution Margin (\$ millions)

			Forecast					
	<u>20</u>	<u> 007</u>	20	800	2009		2	<u>010</u>
Delivery Revenue								
Core Market	\$	555	\$	556	\$	557	\$	557
Contract Market - Base	*	121	*	123	*	118	Ψ	117
Contract Market - Expansion				7		13		17
LRAM Recovery				1		4		7
NGEIR Adjustment		0		6		12		17
•		676		693		704		716
Gas supply fixed cost recovery		27		26		26		26
Distribution margin before cost of gas		703		719		730		742
Cost of Gas								
Compressor fuel		49		53		53		54
Customer Supplied Fuel		(68)		(70)		(70)		(71)
UFG		59		59		59		59
Winter peaking costs		1		4		4		4
Other		1		0		0		0
		42		46		46		46
Gas Distribution Margin	\$	661	\$	674	\$	685	\$	697

<u>Union Gas Limited</u> 2008 - 2010 Utility Forecast Transportation Revenue (\$ millions)

			Forecast							
	20	007	2	800	<u>2009</u>		<u>2010</u>			
Core Services										
M12 - Long Term Transportation	\$	118	\$	132	\$	141	\$	144		
C1 Long Term Transportation		2		5		6		7		
M13 - Local Production		1		1		1		1		
M16		0		0		0		0		
Total Core Services Revenue		121		139		149		152		
Transactional Services										
C1 Short Term Transportation and Exchanges		6		4		4		4		
M12 Transportation Overrun/Limited Firm		2		1		1		1		
Other		1		1_		1_		11		
Total Transactional Services Revenue		9		6_		6		6_		
Total		130		145		155		158		
Margin Deferral Account		(1)		(1)		(1)		(1)		
Total Transportation Revenue Net of Deferral	\$	129	\$	144	\$	154	\$	157		

<u>Union Gas Limited</u> 2008 - 2010 Utility Forecast Other Revenue (\$ millions)

			Forecast							
	<u>2007</u>		2008		<u>2009</u>		<u>2010</u>			
Billing revenue	\$	9	\$	10	\$	10	\$	10		
Account opening & connection charges		6		6		6		6		
Late payment fee		7		7		7		7		
Mid-market transactions		2		2		2		2		
Miscellaneous revenue		0		0		0		0		
Total Other Revenue	\$	24	\$	25	\$	25	\$	25		

<u>Union Gas Limited</u> 2008 - 2010 Utility Forecast Operating & Maintenance (\$ millions)

			Forecast						
	<u>2007</u>		<u>2008</u>		<u>2009</u>		<u>2</u>	<u>010</u>	
Gross O&M									
Salaries and Wages	\$	157	\$	163	\$	169	\$	175	
S&W Direct Cost to Projects		12		12		13		13	
Benefits		26		27		28		29	
Contract Services		50		51		52		53	
Insurance		9		9		9		9	
All others		84		84		84		84	
		338		347		355		363	
DSM		15		17		19		1 9	
Bad Debt		10		10		11		11	
Affiliate expenses		3		3		3		3	
Pensions		29_		29		29		<u>29</u>	
Total Gross O&M		395		406		416		425	
Expansion O&M				1		2		2	
Capitalization		(69)		(67)		(63)		(59)	
Net O&M	\$	326	\$	340	\$	354	\$	368	

<u>Union Gas Limited</u> 2008 - 2010 Utility Forecast Total Capital Spending (\$ millions)

		Forecast										
	2	800	2	009	<u>2</u>	010						
Expansion	\$	37	_\$	43	\$	97						
Maintenance												
New Business		48		42		44						
Other Maintenance		92		104		84						
IT		18		16		16						
Overheads		67		63		59						
Maintenance & IT		225		225		203						
Total	\$	262	\$	268	\$	300						

<u>Union Gas Limited</u> 2008 - 2010 Utility Forecast Rate Base (\$ millions)

		2 Total	Approved		<u>Jtility</u>		2008	2	2009	2	2010
Rate Base	•		 	-							
Gross plant	\$	5,339	\$ 169	\$	5,171	\$	5,565	\$	5,771	\$	6,024
Accumulated depreciation		2,070	 55		2,015		2,157		2,317		2,486
Net book value		3,269	113		3,156		3,408		3,455		3,538
Working capital											
O&M Working Capital		25	1		25		25		25		25
Gas Purchase Working Capital		8	-		8		8		8		8
Gas in Storage		178	3		175		175		175		175
Linepack		14	-		14		14		14		14
Balancing Gas		130	-		130		130		130		130
Inventory of Stores and Spare Equipment		30	1		29		29		29		29
Merchandise Accounts Receivable		(54)	-		(54)		(54)		(54)		(54)
Prepaid and Deferred Expense		3	0		3		3		3		3
Customer Deposits		(44)	_		(44)		(44)		(44)		(44)
Accumulated deferred taxes		(181)	 (12)		(170)	_	(154)		(137)		(119)
Total	\$	3,377	\$ 106	\$	3,271		3,539	\$	3,602	\$	3,703

UNION GAS LIMITED Summary of Cost of Capital Years Ending December 31, 2007 - 2010

				_	Utility Capital	Structure			Requested
Line No.	Particulars	Approved (\$000's) (a)	Non-utility (\$000's) (b)	*****	(c)	(%) (d)	Cost Rate % (e)	_	Return (\$000's) (f)
	2007				(a) - (b)				
1 2	Long-term debt Unfunded short-term debt	\$ 2,082 (30)	\$ 66 (1)	\$	2,017 (29)	61.66	7.66% 1.55%	\$_	154 (0)
3	Total debt	2,052	65		1,987	60.76			154
4 5	Preference shares Common equity	110 1,216	3 38		106 1,178	3.24 36.00	4.71% 8.54%	_	5 101
6	Total rate base	\$ 3,377,199	\$106,303	\$ <u></u>	3,271	100.00		\$_	259
	2008								
7 8	Long-term debt Unfunded short-term debt			\$	2,074 85	58.60 2.41	7.31% 4.40%	\$ _	152 4
9	Total debt				2,159	60.76			155
10 11	Preference shares Common equity			_	106 1,274	2.99 36.00	4.81% 8.54%	_	5 109
12	Total rate base			\$_	3,539	100.00		\$	269
	2009								
13 14	Long-term debt Unfunded short-term debt			\$	2,029 170	56.33 4.73	7.16% 4.40%	\$	145 7
15	Total debt				2,199	60.76			153
16 17	Preference shares Common equity (1)			_	106 1,297	2.94 36.00	4.82% 8.54%	_	5 111
18	Total rate base			\$_	3,602	100.00		\$=	269
	2010								
19	Long-term debt			\$	2,087	56.36	6.92%	\$	144
20	Unfunded short-term debt			_	177	4.78	4.40%	_	8
21	Total debt				2,264	60.76			152
22	Preference shares				106	2.86	4.82%		5
23	Common equity (1)				1,333	36.00	8.54%		114
24	Total rate base			\$	3,703	100.00		\$ =	271

Answer to Interrogatory from School Energy Coalition "SEC"

Issues 1.4, 3.3, 4, 5, and 6

Question:

Please obtain from your immediate and ultimate parent companies, and provide to us all forecasts, budgets, projections, estimates, plans, strategic planning documents, research and other documents in their possession that contain information relating directly or indirectly to the expected revenues, expenditures (operating, capital, depreciation, taxes, cost of capital or otherwise) or other business conditions or input or output prospects affecting or expected to affect Union Gas Limited during the period 2008 through 2012 or any part thereof.

Response:

The Union Gas portion of the June 19, 2007, Spectra Energy Board of Directors presentation referred to in the interrogatory response provided at Exhibit C23.52 has been attached.



Gas Distribution

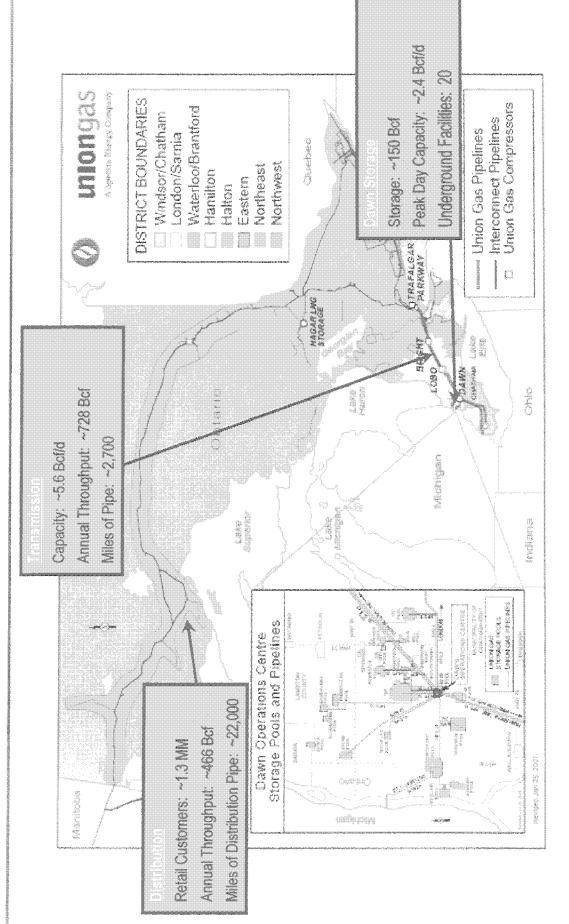
Julie Dill, President **Union Gas**

Board of Directors Meeting June 19, 2007

∞

Union Gas Operations





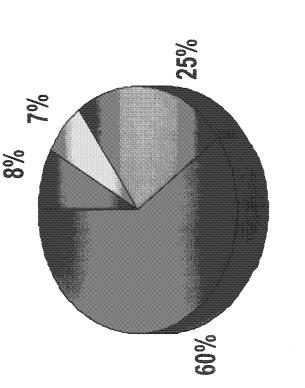


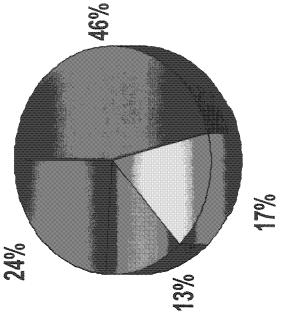
Volume & Margin by Customer Type - 2006

Spectra Energy

Total Volume = 1.2 trillion cubic feet







* Revenue net of gas costs

- Residential Distribution (~1.2 million customers)
- Non Residential Distribution small volume (~0.1 million customers)
- Non Residential Distribution large volume (primarily industrial and utilities ~ 550 customers)
- Transmission and Storage -- (~150 customers)

Competitive Environment Gas Distribution



- Natural Gas Demand¹
- 2.4% annual increase in Ontario
- Growth primarily driven by electricity generation demand
- Top Customers
- 7.2% of annual margin from 4 customers:
- Enbridge Gas Distribution, TransCanada Pipelines, Nexen, Gaz Metro
- Top 10 customers make up 9.7% of annual margin
- Competitors
- Transportation: TransCanada Pipelines
- Storage: Enbridge Gas Distribution, DTE Energy, Bluewater Gas Storage, other storage in midwest and northeast
- Energy Conservation: Ontario Power Authority and municipal electric utilities

Operations Performance Gas Distribution



2006 Operational Drivers

Pipeline throughput – 1,194 Bcf Heating Degree Days – 6,776.6 F # of Customers – 1,267.9k Canadian Fx Rate – 1.1346

Personal Ventonal 2 Spectra 4.17 6 0 AGA 6.12 7 2 Spectra 3.80 5 0 AGA 5.86 7 5 CGA 4.12 4 2 Spectra 4.46 4 6 AGA 5.32 6 6 CGA 3.72 3 6 CGA 3.72 3				
Injuries Spectra 4.17 CGA 4.53 CGA 4.53 CGA 4.12 CGA 4.12 CGA 4.12 CGA 4.12 CGA 5.32 CGA 3.72 CGA CGA 3.72 CGA CGA 3.72 CGA 3.72 CGA 3.72 CGA 3.72 CGA CGA			Personal	Vehicle
Spectra 4.17 AGA 6.12 CGA 4.53 Spectra 3.80 AGA 5.86 CGA 4.12 Spectra 4.46 AGA 5.32 AGA 5.32 CGA 3.72			CO Description Description Description Description Description	Collisions
AGA 6.12 CGA 4.53 Spectra 3.80 AGA 5.86 CGA 4.12 Spectra 4.46 AGA 5.32 CGA 3.72	N	Spectra	4.17	6.34
CGA 4.53 Spectra 3.80 AGA 5.86 CGA 4.12 Spectra 4.46 AGA 5.32 CGA 3.72	0 0	AGA	6.12	7.52
Spectra 3.80 AGA 5.86 CGA 4.12 Spectra 4.46 AGA 5.32 CGA 3.72	*	3	4.53	4.74
Spectra 3.80 AGA 5.86 CGA 4.12 Spectra 4.46 AGA 5.32 CGA 3.72				
AGA 5.86 CGA 4.12 Spectra 4.46 AGA 5.32 CGA 3.72	2	Spectra	3.80	5.50
CGA 4.12 Spectra 4.46 AGA 5.32 CGA 3.72	5 0	40A	5.86	7.55
Spectra 4.46 AGA 5.32 CGA 3.72	S	3	4.12	4.50
Spectra 4.46 AGA 5.32 CGA 3.72				
AGA 5.32 CGA 3.72	~	Spectra	4.46	4.81
CGA 3.72	>	AGA	5.32	6.68
_	ယ	ح ق 200	3,72	3.94

Challenges

- Physically Intensive Work
- **Urban Environment**
- Distribution Construction Maintenance
- Safety Culture Journey to Zero

Actions

- Safety Activities at All Levels
- Operations Management System
- Transmission and Distribution Integrity
 Management Programs
- Culture Initiatives
- BST Organizational Assessment
- EHS Tactics/Strategy Sessions

PAUSE AND THINK

8...... C/1

Strengths, Weaknesses, Opportunities, Threats spectral Gas Distribution

U)
\$
أساوه
- 23
Ē
63
<u>L</u>
- Same
10

- Excellent business model
- Safe & reliable supplier of natural gas
- Low risk investment that historically exceeds allowed ROE | •
- Operational excellence
- Experienced management team
- Strong regulatory relationships

- Storage forbearance decision
- Leverage growth with US Northeast
- Growth in Power Generation and organic distribution growth
- Long term incentive regulation framework
- Incentive to deliver conservation programs
- Global Warming/Climate change

Weaknesses

- Lower return on regulated expansions
- Limited bolt-on storage opportunities
- Link between regulated transmission & unregulated storage
- Lower allowed ROE vs US LDCs
- Thinner equity vs US LDCs
- Decline in average use per customer

- Rising storage development costs
- Storage competition Re-regulation

 - Weather
- Infrastructure integrity
- Aging work force
- Strong Canadian dollar/Economic slowdown