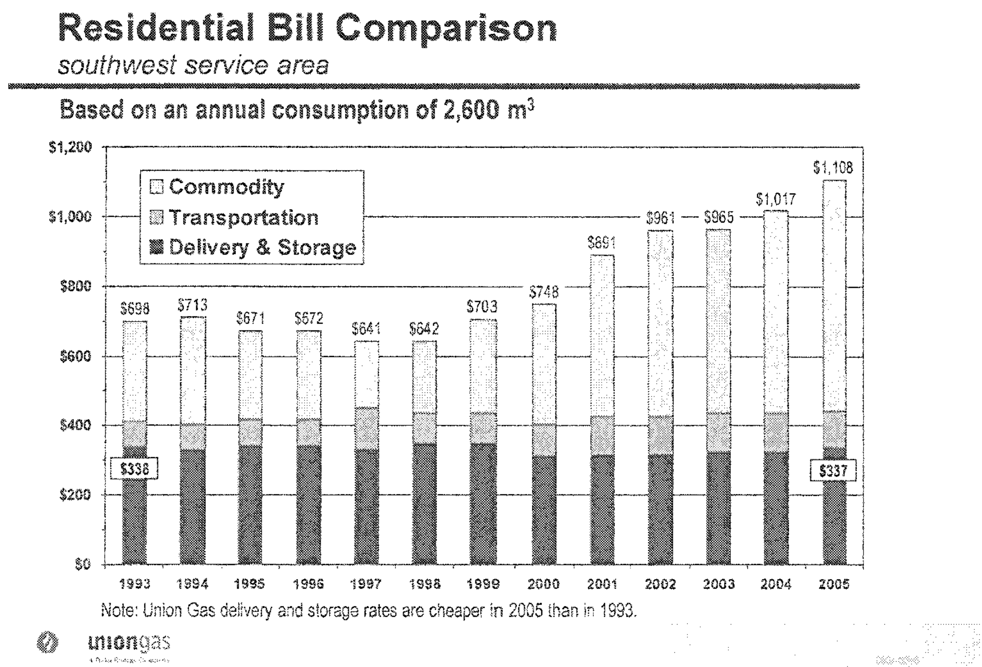
UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("Energy Probe")

Reference: Exhibit B, Tab 1, p. 36

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

Question:



a) Similar to the chart above, previously produced by Union, please provide a chart showing the delivery and storage-only, transmission, and commodity rate history for typical system gas residential and small business customers using a fixed annual volume of gas. Utilizing actuals and projected forecasted annual costs over the PBR period, please extend the rate analysis from1993 up to and including the proposed rates until 2012.

b) Please provide the underlying figures in table format.

c) Please provide the average cost per residential customer addition for each of the last 5 years and the forecasted annual cost over the PBR period.

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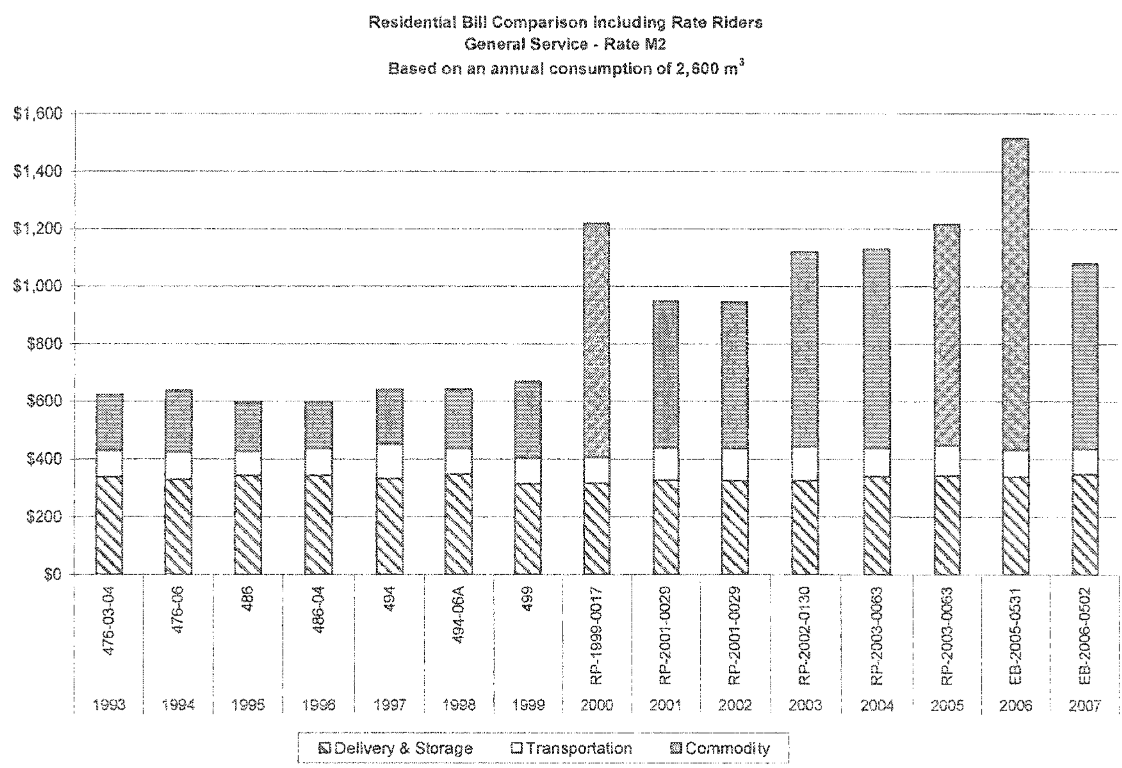
Response:

a) The charts below provide the total annual bill including delivery, storage, transportation and commodity for a typical residential M2 customer at a fixed annual volume of 2,600 m3 and a typical commercial M2 customer at a fixed annual volume of 17,000 m3.

The charts are completed for the period 1993 to 2007. Union plans to file its rate package for 2008 in September 2007. Union does have a projection of rates for 2009 to 2012.



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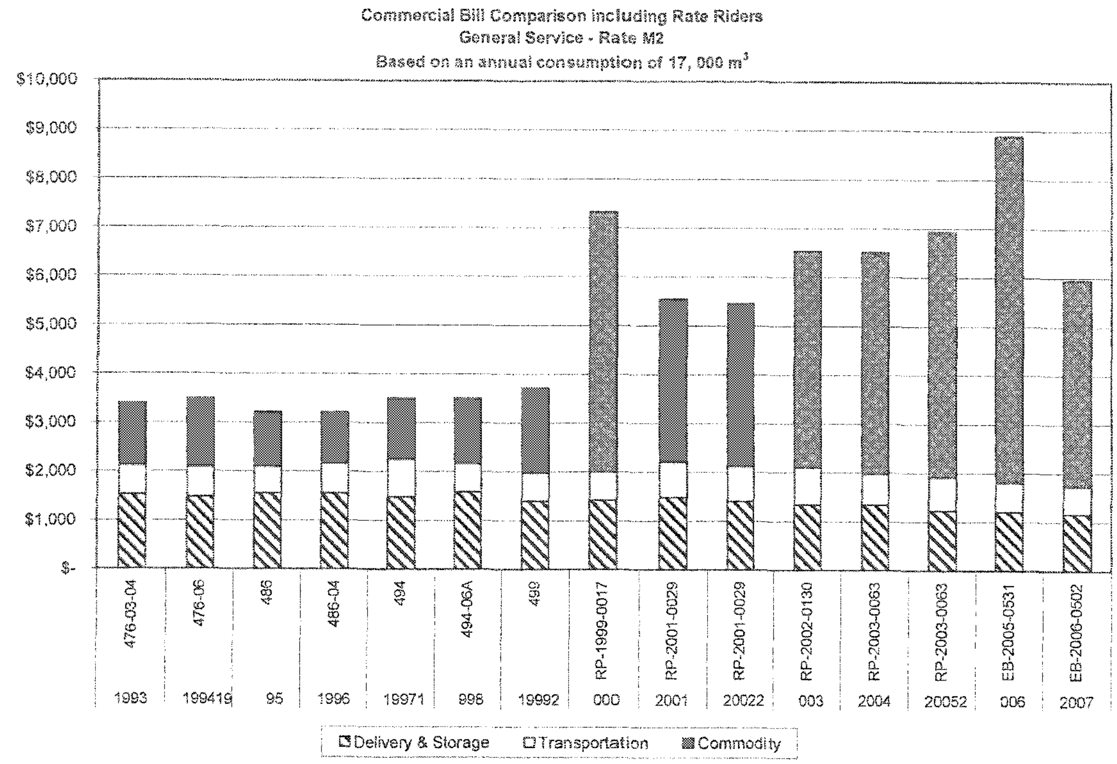

b) The underlying figures for the charts are provided at Exhibit C3/C16/C33.1.

c)

Growth Cost per Customer	
2002	$1,097
2003	$1,074
2004	$1,080
2005	$1,168
2006	$1,301

Please see Exhibit C23.52 for Union's estimated annual spending on its new business portfolio in 2008 to 2010.

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("Energy Probe")

Reference: EB-2005-0520 Union Ex. J10.03

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

Question:

Interrogatory J10.03 in the EB-2005-0520 Rates Case, at c), posed the following question to Union:

> *Please advise if the ability to "reduce price volatility through a diversified portfolio" is considered by Union to be "the reasonable value to customers" ...*

Union's Response was as follows:

> *c) Yes. Union's risk management program provides reasonable value to customers in part through reduced price volatility and a diversified portfolio. (emphasis added)*

a) Please advise the Board what the other part referred to by the Applicant consists of, that part other than reduced price volatility and a diversified portfolio, which provides reasonable value to customers.
b) Please advise the Board how a diversified portfolio provides reasonable value to customers other than through its use in the attempt to reduce price volatility.

Response:

a) The objective of Union's risk management program is to provide value to customers through reduced price volatility, a diversified portfolio, minimal exposure to counterparty credit risk, fairness to customers and all counterparties in expediting risk management transactions, and appropriate governance and controls in the administration of the program.

b) A diversified portfolio also provides value to customers through achieving a reasonable and market sensitive cost of gas for the supply portfolio. Diversity is achieved through balancing the use of fixed price contracts, indexed price contracts, financial hedging and supply basin diversification.

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Answer to Interrogatory from
Energy Probe Research Foundation ("Energy Probe")

Reference: EB-2005-0520 Union Ex. J10.05

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

Question:

Interrogatory J10.05 in the EB-2005-0520 Rates Case, at b), posed the following question to Union:

> *Please identify and list by Union Rate Case, each change of Risk Management program purpose and/or the Risk Management program objective submitted to the Board since the initial introduction of the Risk Management program.*

Union's Response was as follows:

> *b) In 1998, as part of the E.B.R.O. 499 proceeding, Union filed its "Union Gas Risk Management Program Policies and Procedures" at Exhibit D1, Tab 19, Appendix A. The objectives at that time were:*
>
> *1. Achieve a market responsive price;*
> *2. Stability.*
>
> *In 2002, as part of the RP-2001-0029 proceeding, Union's risk management program and policy was provided at Exhibit C1.5. The policy however remained unchanged from the E.B.R.O. 499 proceeding.*

a) *Please define "market responsive price" as used by the Applicant to identify its objectives for the Risk Management Program.*
b) *Please provide examples of how the Applicant's Risk Management Program achieves market responsive prices.*
c) *Please provide examples which will permit the Board to understand how the termination of the Applicant's Risk Management Program will cause non market responsive prices.*
d) *If the result of termination of the Applicant's Risk Management Program causes non market responsive prices, what would the prices be responsive to?*
e) *In respect of the second objective of the Applicant's Risk Management Program, please identify the rate years since 1994 that commodity price stability was achieved by the Risk Management Program.*

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Response:

a) "Market responsive price" is defined as a cost of gas for Union's gas supply portfolio that reasonably reflects the current market prices and trends in the market.

b) Union's risk management program achieves market responsive prices through balancing the use and timing of financial hedging tools and the diversity in the physical supply portfolio.

   Over the last 5 years, the mark to market of Union's risk management activity has been no greater than 6% of an equivalent unhedged portfolio in any one year, and has averaged 0.1% over the last 5 year term. These low mark to market percentages demonstrate the responsiveness of the portfolio costs to the market. During this same 5 year period, volatility in Union's portfolio was reduced by 31%, when compared to the NYMEX Monthly Settles, which demonstrates Union's ability to provide price stability to customers while having extremely little effect on the overall price of gas.

c) The termination of Union's risk management program would not cause non-market responsive prices. Instead, Union's portfolio costs would reflect the market prices and the full volatility in those prices.

d) Please refer to c) above.

e) Commodity price volatility as measured against the monthly NYMEX market has been reduced in every year of Union's risk management program since 1998. Union does not have the appropriate records to measure the price stability prior to this time.

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("Energy Probe")

Reference: EB-2005-0520 Union Ex. J10.07

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

Question:

Interrogatory J10.07 in the EB-2005-0520 Rates Case, posed the following request to the Applicant:

> *Please provide the percentage of residential and general service customers on Direct Purchase and the trend in these ratios since 2000.*

The Applicant's Response was a chart described as follows:

> *The following identifies the proportion of the general service market (residential, commercial and industrial) on a Direct Purchase arrangement by year.*

a) *Please update the chart to from 2000 to 2007, with the following additions in adjoining columns:*
   i. *the percentage of residential customers that are on both a Direct Purchase arrangement and on the Applicant's Equal Billing Plan in each of the years 2000 to 2007;*
   ii *the percentage of residential customers that are on a system gas purchase arrangement and on the Applicant's Equal Billing Plan in each of the years 2000 to 2007.*
b) *Please provide any forecasts or analysis produced by Applicant that would project allow the Applicant to project that chart annually to 2112, the possible end of the Incentive Regulation period.*
c) *Would it be correct for the Applicant to state that there are no conditions necessary for a Union Gas residential customer to qualify for the Equal Billing Program, and there is no charges levied against residential customers to join or for administration?*

Response:

a) See table below.

Year	% of Customers on a Direct Purchase Arrangement	% of Residential Customers on the Equal Billing Plan	% of Customers on the Equal Billing Plan that are on a Direct Purchase Arrangement	% of Customers on the Equal Billing Plan that are on System Gas
2000	40	41.4	n/a	n/a
2001	43	37.9	n/a	n/a
2002	41	38.8	19.0	19.8
2003	37	38.8	n/a	n/a
2004	37	38.9	15.6	23.3
2005	37	39.1	15.6	23.5
2006	39	39.3	15.7	23.6
2007	38	39.1	15.6	23.5

Note: n/a = not available
Prior to 2004, Union Gas was not tracking the split of EBP customers between Broker Gas and System Gas.
Union Gas did find one ad-hoc report from Aug-02 that was used to provided the split for 2002.
Due to the configuration of the Customer Information System, it is not possible to go back to calculate the split for those years.

b) Union does not have a forecast of migration between direct purchase and system sales or to/from Union's equal billing plan.

c) Correct.

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("Energy Probe")

Reference: EB-2005-0520 Union Ex. J23.03

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

Question:

Interrogatory J23.03 from Superior Energy Management in the EB-2005-0520 Rates Case, posed the following request to the Applicant:

> *Please provide, in a table format, for the natural gas purchased or planned to be purchased that was or is proposed to be hedged for each of 2001 to 2007:*
>
> *i. the volumes;*
> *ii. delivery periods; and*
> *iii. associated price risk.*

In its response, the Applicant did provide the following table:

a) The table below shows the delivery period, volume and associated price risk of natural gas purchased or planned to be purchased from 2001 to 2007:

(i) *Delivery Period*	*(ii)* *Volume (PJs)*	*(iii)* *Associated Price Risk (Volatility US$/mmbtu)**
2001	*33.1*	*$2.26*
2002	*24.2*	*$0.65*
2003	*48.7*	*$1.26*
2004	*47.7*	*$0.90*
2005	*49.5*	*$2.99*
2006	*TBD*	*TBD*
2007	*TBD*	*TBD*

Please update the table to the present.

Response:

(i) Delivery Period	(ii) Volume (PJs)	(iii) Associated Price Risk (Volatility US$/mmbtu)*
2001	33.1	$2.26
2002	24.2	$0.65
2003	48.7	$1.26
2004	47.7	$0.90
2005	49.5	$2.99
2006	40.3	$1.73
2007	TBD	TBD

* NYMEX Last Day Settlement Monthly Volatility defined by one Standard Deviation from the Mean

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UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("Energy Probe")

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

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

Question:

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

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

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

a) *Please complete Table A below to demonstrate the Equal Billing Plan impact on price volatility of the hedged portfolio of Union Gas.*
b) *Please complete Table B below to demonstrate the Equal Billing Plan impact on price volatility of the unhedged portfolio of Union Gas.*

Table A – EQUAL BILLING PLAN IMPACT ON PRICE VOLATILITY
2003-2007
Hedged Portfolio

Date	Residential Consumer Per 273 m3 Monthly With RM	Quarterly Price Change Per 273 m3	Equal Billing Price Per 273 m3 With RM	Quarterly Price Change Per 273 m3
1-Jan-03				
1-Apr-03				
1-Jul-03				
1-Oct-03				
1-Jan-04				
1-Apr-04				
1-Jul-04				
1-Oct-04				
1-Jan-05				
1-Apr-05				
1-Jul-05				
1-Oct-05				
1-Jan-06				
1-April-06				
1-Jul-06				
1-Oct-06				
1-Jan-07				
1-Apr-07				

Table B – EQUAL BILLING PLAN IMPACT ON PRICE VOLATILITY
2003-2007
Unhedged Portfolio

Date	Residential Consumer Per 273 m3 Monthly No RM	Quarterly Price Change Per 273 m3	Equal Billing Price Per 273 m3 No RM	Quarterly Price Change Per 273 m3
1-Jan-03				
1-Apr-03				
1-Jul-03				
1-Oct-03				
1-Jan-04				
1-Apr-04				
1-Jul-04				
1-Oct-04				
1-Jan-05				
1-Apr-05				
1-Jul-05				
1-Oct-05				
1-Jan-06				
1-April-06				
1-Jul-06				
1-Oct-06				
1-Jan-07				
1-Apr-07				

Response:

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

The EBP has no impact on the per unit gas supply commodity rate. Because Union was directed to use 273 m^3 monthly in completing the response, the percentage reduction in volatility results in 0% for the entire table.

Table A - Equal Billing Plan Impact on Price Volatility
2003 - 2007
With Risk Management

Date	Residential Consumer per 273 m^3 Monthly With RM *	Quarterly Price Change Per 273 m^3	Equal Billing Price Per 273 m^3 With RM *	Quarterly Price Change Per 273 m^3	Percentage Reduction in Volatility (%)
Jan-01-2003	$55.52		$55.52		
Mar-01-2003	$63.44	$7.92	$63.44	$7.92	0%
May-01-2003	$72.86	$9.42	$72.86	$9.42	0%
Jul-01-2003	$75.25	$2.39	$75.25	$2.39	0%
Oct-01-2003	$69.66	($5.59)	$69.66	($5.59)	0%
Jan-01-2004	$61.07	($8.59)	$61.07	($8.59)	0%
Apr-01-2004	$72.34	$11.26	$72.34	$11.26	0%
Jul-01-2004	$81.73	$9.40	$81.73	$9.40	0%
Oct-01-2004	$80.68	($1.05)	$80.68	($1.05)	0%
Jan-01-2005	$82.61	$1.92	$82.61	$1.92	0%
Apr-01-2005	$69.95	($12.66)	$69.95	($12.66)	0%
Jul-01-2005	$79.29	$9.34	$79.29	$9.34	0%
Oct-01-2005	$87.20	$7.91	$87.20	$7.91	0%
Jan-01-2006	$113.77	$26.56	$113.77	$26.56	0%
Apr-01-2006	$95.57	($18.19)	$95.57	($18.19)	0%
Jul-01-2006	$88.56	($7.01)	$88.56	($7.01)	0%
Oct-01-2006	$86.05	($2.52)	$86.05	($2.52)	0%
Jan-01-2007	$67.79	($18.26)	$67.79	($18.26)	0%
Apr-01-2007	$70.66	$2.87	$70.66	$2.87	0%

* rate includes commodity reference price plus price adjustments (rate riders)

Table B - Equal Billing Plan Impact on Price Volatility
2003 - 2007
Without Risk Management

Date	Residential Consumer per 273 m^3 Monthly No RM *	Quarterly Price Change Per 273 m^3	Equal Billing Price Per 273 m^3 No RM *	Quarterly Price Change Per 273 m^3	Percentage Reduction in Volatility (%)
Jan-01-2003	$55.40		$55.40		
Mar-01-2003	$63.26	$7.86	$63.26	$7.86	0%
May-01-2003	$77.37	$14.11	$77.37	$14.11	0%
Jul-01-2003	$79.55	$2.18	$79.55	$2.18	0%
Oct-01-2003	$73.49	($6.06)	$73.49	($6.06)	0%
Jan-01-2004	$62.03	($11.45)	$62.03	($11.45)	0%
Apr-01-2004	$75.01	$12.97	$75.01	$12.97	0%
Jul-01-2004	$80.16	$5.15	$80.16	$5.15	0%
Oct-01-2004	$79.61	($0.54)	$79.61	($0.54)	0%
Jan-01-2005	$82.42	$2.81	$82.42	$2.81	0%
Apr-01-2005	$69.72	($12.70)	$69.72	($12.70)	0%
Jul-01-2005	$78.72	$8.99	$78.72	$8.99	0%
Oct-01-2005	$87.04	$8.32	$87.04	$8.32	0%
Jan-01-2006	$114.73	$27.69	$114.73	$27.69	0%
Apr-01-2006	$96.85	($17.88)	$96.85	($17.88)	0%
Jul-01-2006	$89.57	($7.27)	$89.57	($7.27)	0%
Oct-01-2006	$86.20	($3.37)	$86.20	($3.37)	0%
Jan-01-2007	$65.74	($20.46)	$65.74	($20.46)	0%
Apr-01-2007	$68.10	$2.36	$68.10	$2.36	0%

* rate includes commodity reference price plus price adjustments (rate riders)

UNION GAS LIMITED

Answer to Interrogatory from
Energy Probe Research Foundation ("Energy Probe")

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

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

Question:

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

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

In the EB-2006-0034 Enbridge 2007 Rates Case, the Applicant was requested to complete the following table to allow the Board Panel to more fully assess the impact that their Risk Management Plan had on price volatility.

Please complete the Table below based on the Union experience.

Date	*PGVA with RM ($/103M3)*	*PGVA no RM ($/103M3)*	*RM impact ($/103M3)*	*RM impact (%)*
3-Jan				
3-Apr				
3-Jul				
3-Oct				
4-Jan				
4-Apr				
4-Jul				
4-Oct				
5-Jan				
5-Apr				
5-Jul				

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5-Oct				
6-Jan				
6-Apr				
6-Jul				
6-Oct				
7-Jan				
7-Apr				
Average				

Response:

Date	PGVA with RM * ($ millions)	PGVA with no RM* ($ millions)	RM Impact ($ millions)	RM Impact (%)
Jan-03	50.5	50.0	0.5	1%
Mar-03	66.1	110.4	(44.3)	-40%
May-03	3.2	1.2	2.0	163%
Jul-03	(10.2)	(14.7)	(4.5)	-30%
Oct-03	(8.6)	(15.5)	(6.9)	-44%
Jan-04	35.7	28.6	7.1	25%
Apr-04	6.7	9.1	(2.4)	-27%
Jul-04	(27.8)	(27.5)	0.3	1%
Oct-04	(8.2)	(5.7)	2.4	42%
Jan-05	(31.8)	(39.6)	(7.9)	-20%
Apr-05	1.3	0.0	1.3	100%
Jul-05	5.1	9.8	(4.7)	-48%
Oct-05	72.5	86.9	(14.4)	-17%
Jan-06	(45.3)	(49.6)	(4.3)	-9%
Apr-06	(77.4)	(81.5)	(4.1)	-5%
Jul-06	(64.3)	(68.8)	(4.5)	-6%
Oct-06	(73.3)	(82.4)	(9.2)	-11%
Jan-07	(24.5)	(34.3)	(9.8)	-29%
Apr-07	(41.2)	(45.5)	(4.3)	-9%

* The PGVA is measured in dollar units (rather than $\$/10^3m^3$ as suggested by the interrogatory). The above values represent the costs that accumulated in the PGVA in the respective periods.

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Answer to Interrogatory from
Energy Probe Research Foundation ("Energy Probe")

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

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

Question:

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

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

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

Year	*Union/Volume of Risk of Management Activity (m^3)*	*Cost of Risk Management – Purchases/Options (Gain/Loss) $Millions*	*Average AECO Spot Price of Gas Over Same Period ($C\$/10^3m^3$)*	*Impact of Risk Management on PGVA Price (% + or -)*
2006				
2005				
2004				
2003				
2002				

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Response:

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

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