



**LETTER NO. L-31-07**

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**VIA E-MAIL**

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April 26, 2007

Mr. Scott Thomson  
Vice President, Finance and Regulatory Affairs  
Terasen Gas Inc.  
16705 Fraser Highway  
Surrey, B.C. V4N 0E8

Dear Mr. Thomson:

Re: Terasen Gas Inc.  
Gas Supply Mitigation Incentive Program for 2005/06

Further to your March 8, 2007 filing, the Commission accepts the calculation of incentive payments and issues the attached Commission staff report entitled "Gas Supply Mitigation Incentive Program ("GSMIP") for 2005/06".

Yours truly,

*Original signed by:*

*Constance M. Smith*

for: Robert J. Pellatt

RJP/cms  
Enclosure  
cc: Interested Parties

**GAS SUPPLY MITIGATION**

**INCENTIVE PROGRAM**

**(GSMIP)**

**2005 / 2006**

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**OVERVIEW OF THE  
GAS SUPPLY MITIGATION INCENTIVE PROGRAM (“GSMIP”)  
FOR 2005/06**

**1.0 Introduction**

This report is based on information supplied to the B.C. Utilities Commission by the Terasen Gas Inc. (“Terasen” or “TGI”) dated March 8, 2007 (Appendix 1). The information was submitted to Commission staff in the format of prior reports and this detail was relied on to develop the following overview. This overview of the Gas Supply Mitigation Incentive Program (“GSMIP”) has been prepared to avoid repeating material in the Terasen filing.

**2.0 GSMIP Objectives**

The intent of the program has not changed over the years and is based on the alignment of the interests of customers, shareholders and employees. The objectives of the program remain the same from the initial introduction and continue to be based on five major elements as outlined below. The current formula was approved by Order G-79-02 for the term between November 1, 2003 and October 31, 2004 (Appendix 2). The continuation of the formula for 2005/06 was approved by Order G-85-05 (Appendix 3). The following objectives originally established with the first program serve as guiding principles for the incentive structure of the 2005/06 GSMIP.

1. Supply Security – The plan should maintain a high security of supply and not adversely affect total net gas costs.
2. Alignment of Interests – Terasen should be encouraged to maximize net revenues from off-system business activities.
3. Fair and Reasonable Incentives – The objective is to encourage new incentives to capture value.
4. Simplicity – Plan should minimize administrative effort.
5. Fair and Reasonable Performance – The performance targets and productivity improvements should be fair and reasonable.

**3.0 Service Quality Indicators (“SQI’s”)**

Terasen filed a report with the Commission on March 2, 2007 that outlined its performance relative to each SQI for the period November 2005 to October 2006. Commission staff reviewed the results of the report and assessed the performance under the SQI criteria.

1. Annual Contract Plan (ACP) – Portfolio Optimization – The ACP was submitted June 1, 2006 and approved by L-33-06 on July 5, 2006. The submission date of ACP was based on gaining critical winter data.
2. Price Risk Management Plan (PRMP) – The original PRMP for November 2006 to October 2009 was submitted on May 18, 2006 and approved by L-20-06. The PRMP has been filed in a timely manner and implemented within the approved guidelines.
3. Counterparty Risk and Credit Exposure Management – Terasen has effectively managed credit exposure and prudently avoided non-recoveries for the period in question. In 2005, Terasen adopted a new method of evaluating financial counterparty credit exposure based on three year forward market pricing, market volatility in this time frame and confidence interval of between 95% or 99%.

4. **Commodity Supply Reliability** – By putting in place commodity, pipeline and storage asset diversification within the Annual Contracting Plan, Terasen Gas continued to ensure 100% delivery of firm customer demand for the November 2005 to October 2006 contract year. The portfolio diversification strategy became a significant benefit on July 3<sup>rd</sup>, 2006 when TGI experienced supply cuts at the Pine River gas processing plant and TGI was able to secure alternate supply.
5. **Comparison of Average Utility Gas Costs (Table No. 1)** – The Terasen commodity cost is slightly higher than other Pacific North Western (“PNW”) utilities by up to \$0.16/GJ, due to the significant amount of Station #2 gas. Station #2 and AECO monthly prices (which make up 85% of the Terasen portfolio) averaged \$0.50/GJ higher than Rockies prices during the November 2005 to March 2006 period. This is in contrast to 2004/05 when the Terasen’s cost averaged lower than all other PNW utilities due to AECO prices averaging lower than Rockies prices by \$0.02/GJ. The lower Rockies prices over the AECO price resulted from the lack of take-away pipeline compared to the amount of gas in the region. Unfortunately, Terasen has been unable to secure firm space on Northwest Pipelines Ltd. (“NWP”) and access this lower price commodity.

<b>Table No. 1 Comparison of the Average Utility Cost of Gas (Cdn. \$/GJ)</b>					
	<u>Terasen Gas Inc.</u>	<u>Puget Sound Energy Inc.</u>	<u>Northwest Natural</u>	<u>Cascade Natural Gas</u>	<u>Avista Utilities</u>
<b>Gas cost (\$/GJ)</b>	\$ 8.03	\$ 7.88	\$7.87	\$ 8.01	\$ 8.06

#### **4.0 Internal Auditors Examination**

Terasen Gas’ internal auditors and Commission staff have analyzed and accepted the incentive payment calculation for 2005/06.

#### **5.0 GSMIP Report for 2005/06**

##### **5.1 Economic Environment**

Table No. 2 on page 3, illustrates the monthly index and average daily index prices for Sumas, AECO and Station #2 during the report period. The maximum highs for monthly priced gas at all locations occurred in November while daily priced gas peaked in December. October was the lowest priced month for the Monthly Index and the Daily Index recorded the lowest prices in September.

**Table No. 2 – Daily and Monthly Prices – 2005/06 (\$Cdn/GJ)**

	<u>Monthly Index</u>			<u>Daily Index Average</u>		
	<u>Sumas</u>	<u>AECO</u>	<u>St#2</u>	<u>Sumas</u>	<u>AECO</u>	<u>St#2</u>
<b>Nov-05</b>	\$ 12.44	\$ 12.08	\$ 11.72	\$ 9.27	\$ 8.81	\$ 8.55
<b>Dec-05</b>	10.56	10.22	9.84	12.60	11.88	11.74
<b>Jan-06</b>	10.60	11.48	9.53	8.46	8.22	7.78
<b>Feb-06</b>	7.75	8.02	7.06	7.39	7.09	6.75
<b>Mar-06</b>	7.01	6.87	6.21	6.46	6.28	5.76
<b>Apr-06</b>	6.30	6.31	5.94	6.27	6.26	5.74
<b>May-06</b>	6.10	6.23	5.87	5.38	5.34	4.92
<b>June-06</b>	5.18	5.30	4.78	5.62	5.56	5.12
<b>July-06</b>	5.44	5.49	4.98	5.67	5.45	5.24
<b>Aug-06</b>	6.26	5.84	5.69	6.50	6.24	6.00
<b>Sept-06</b>	5.87	5.82	5.43	4.81	4.46	4.35
<b>Oct-06</b>	4.18	4.22	3.69	5.71	5.46	5.19
<b>AVERAGE</b>	\$ 7.32	\$ 7.32	\$ 6.73	\$ 7.01	\$ 6.75	\$ 6.43

## 5.2 Currency

The exchange rate reached a low of 1.1489 Canadian dollars (Feb-06) to the United States dollar and hit a high of 1.2555 Canadian dollars (May-06) in the examination period. The exchange rate continued to be highly volatile throughout the gas year.

## 5.3 Commodity Resales

	<u>2004/5</u>	<u>2005/6</u>	<u>Difference</u>	<u>Percent</u>
Volume (PJ)	36	28	(9)	-24%
Revenue (\$MM)	262	207	(55.2)	-21%

Commodity resale revenue decreased significantly from the previous year, as greater shaping of the supply portfolio resulted in lower term gas purchases and hence less gas for resale. As discussed in the next section, performance in making resales generated an increase in Eligible Margin.

## 5.4 Gas Supply Mitigation Incentive Plan 2005/06

The GSMIP margin (shown in Table No. 3, next page) available for the sharing incentive formula is \$39,900,000 and the source of this revenue is made up of the two components; Commodity Resale and Transport/Other margin. Each segment has a different method of calculation to determine the applicable incentive portion shared between Terasen and its customers.

<b>Table No. 3 – GSMIP Margin</b>		
Transport and Other Revenue	\$ 19,500,000	48.9%
Commodity Resale Eligible Margin	<u>\$ 20,400,000</u>	51.1%
<b>TOTAL GSMIP Margin</b>	<b>\$ 39,900,000</b>	

As shown in Table No. 4, the calculated GSMIP Margin for 2005/06 (\$39,877,058) represents the greatest amount of GSMIP mitigation margin since 2000/01.

<b>Table No. 4 – Total GSMIP Mitigation Amounts from Current and Prior Years</b>	
<u>YEAR</u>	<u>TOTAL</u>
2005/06	\$ 39,877,058
2004/05	25,578,259
2003/04	31,977,938
2002/03	30,816,353
2001/02	3,370,385
2000/01	51,192,936

There is a significant increase over the 2004/05 GSMIP Mitigation Margin mainly based on two factors as follows:

1. In 2005/06, the market price of gas was extremely volatile as shown in Table No. 2.
2. There was significant T-South de-contracting that resulted in Station #2 trading at a discount to other trading points and higher values of T-South compared to 2004/05.

The impact of these two factors is shown in the major components, Transport and Resale as shown in Table No. 5.

<b>Table No. 5 – GSMIP Mitigation Margin</b>				
	<u>2004/05</u>	<u>2005/06</u>	<u>Difference</u>	<u>%</u>
<b>Transport &amp; Other Margin</b>	\$10,094,000	\$19,500,000	\$9,406,000	93%
<b>Commodity Resale Eligible Margin</b>	<u>15,485,000</u>	<u>20,400,000</u>	<u>4,915,000</u>	<u>32%</u>
<b>Off-System Revenue</b>	\$25,579,000	\$39,900,000	\$14,321,000	100%

## 6.0 Components of GSMIP Mitigation Margin

### 6.1 Transportation and Other Margin Revenue.

The Transportation & Other Margin Revenue is determined by month and simply added together to calculate the total amount for the year. Transportation margin, in this case is \$13.9 million and is broken down into the majors components as shown in Table No. 6 consisting of; T-South, T-North, Nova, Nova/ANG, T-South, Southern Crossing (“SCP”) and NWP shown in Table No. 6.

**Table 6: Transportation Mitigation Margin (\$000,\$/GJ) & Volume (TJ)**

	<u>T-South</u>	<u>T-North</u>	<u>Nova</u>	<u>Nova/ANG</u>	<u>T-South/SCP</u>	<u>NWP</u>	<u>TOTAL</u>
<b>Margin (\$000)</b>							
<b>2004/05</b>	\$ 421	\$ 29	\$ 3,740	\$ 8	\$ 412	\$ --	\$ 4,610
<b>2005/06</b>	9,361	2	3,028	532	5	918	13,845
<b>Margin (\$/GJ)</b>							
<b>2004/05</b>	\$ 0.06	0.04	\$ 0.14	\$ 0.15	\$ 0.07	\$ --	
<b>2005/06</b>	0.41	0.06	0.11	0.15	0.52	0.12	
<b>Volume (TJ)</b>							
<b>2004/05</b>	7,461	763	26,587	54	6,129	--	40,995
<b>2005/06</b>	23,095	39	28,451	3,578	9	42	55,248

T-South – Considering the following Table it indicates that 68% of the total Transportation Margin was gained from T-South. As producers decontracted for T-South, Terasen was able to sell this capacity to producers and offset its firm demand charges. The significant increase in margin to \$9.4 million was the result of TGI realizing greater value for its capacity and mitigating a larger volume. The T-South mitigation margin excludes 79% of the T-South margin for the winter term and 21% for the summer term that is allocated to the SCP account.

It was TGI’s oversight to apply 100% of a gas shipment from Station 2 across SCP to Kingsgate in November, 2005 and only 21% should be applied. Therefore \$17,296 transportation margin should be excluded.

T-South/SCP – TGI mitigated 6 PJ less than the previous year as greater value was realized at Huntingdon.

Nova, Nova/ANG – The transportation market value dropped from \$.14/GJ in 2004/05 to \$.11/GJ as export demand decreased while firm capacity at Empress increased.

T-North – This is a very small percentage of the total Transportation mitigation margin.

Other Margin - In the category “Other” margin, revenue amounted to \$6.4 million and includes; Capacity Release, T-South, Storage Release, Park and Lending gas to third parties as shown in Table No. 7 below.



**Table No. 7: Other Mitigation Margin Sources**

	<b><u>Capacity Release</u></b>	<b><u>T-S Revenue</u></b>	<b><u>Storage Releases</u></b>	<b><u>Cochrane &amp; DEGT Extraction</u></b>	<b><u>Park/Lends</u></b>	<b><u>Total</u></b>
Other (\$000)						
2004/05	\$ 1,388	\$ 802	\$ 128	\$ 903	\$ 2,264	\$ 5,484
2005/06	<u>2,584</u>	<u>0</u>	<u>0</u>	<u>877</u>	<u>2,974</u>	<u>6,399</u>
(+/-)	\$ 1,161	\$ -802	\$ -128	\$ -25	\$ 710	\$ 916

Capacity Release – Terasen assumed long term T-South capacity from Power Source Managers and shed it short term T-South capacity at no extra cost to customers. The value of this deal will be recognized in 2007.08.

Cochrane & DEGT Extraction – The plant contributed \$877,000. This facility extracts liquids from the gas at the Empress border and Terasen is credited with the value of the liquids extracted.

Park/Lend – Terasen Gas was able to capitalize on summer and winter price spreads.

## 6.2 Commodity Resale Revenue

**Table No. 8: Commodity Resale - Volume (PJ) & Revenue (\$MM)**

	<b><u>2004/05</u></b>	<b><u>2005/06</u></b>	<b><u>(+/-)</u></b>	<b><u>(+/-) %</u></b>
<b>Volume (PJ)</b>	36	28	(9)	-24%
<b>Revenue (\$MM)</b>	\$ 262	\$ 207	\$ (55.2)	-21%

In comparison to last year, volumes have decreased by 24% and corresponding revenue has declined by 21% as shown in Table No. 8. There were five sources of Commodity Resale Revenue categorized as; Huntingdon, Kingsgate, Empress, AECO and Rate 10 (Table No. 9).

**Table 9: Commodity Resale Revenue (\$MM), Volume (TJ) and Avg. Resale (\$/GJ) by Location**

	<u>Huntingdon</u>	<u>Kingsgate</u>	<u>Empress</u>	<u>AECO</u>	<u>Rate 10</u>
<b>Revenue (\$MM)</b>					
<b>2004/05</b>	\$ 110	\$ 16	\$ 113	\$ 0.3	\$ 22
<b>2005/06</b>	151	2	15	21	18
<b>Volume (TJ)</b>					
<b>2004/05</b>	\$ 15,591	\$ 2,378	\$ 15,614	\$ 45	\$ 2,850
<b>2005/06</b>	18,691	368	2,053	3,755	2,784
<b>Avg. Resale</b>					
<b>2004/05</b>	\$ 7.08	\$ 6.76	\$ 7.26	\$ 6.72	\$ 7.84
<b>2005/06</b>	8.09	5.29	7.30	5.66	6.40

Huntingdon – The majority of Resale Mitigation Revenue was generated through Huntingdon. As shown in Table No. 9, the average resale price was approximately \$1.01 higher than last year and with increased volumes (3,100 TJ) revenue increased by about \$41 million (37.2%).

Kingsgate – The volumes declined substantially (2,010 TJ) with the average price falling about \$1.47/GJ so that Commodity Resale Revenue amounted to about \$2 million (-88%).

Empress – There was less term gas in the Annual Contracting Plan and therefore less gas for resale (a drop of 13,561 TJ from the previous year). Therefore generated revenue declined substantially to \$15 million (-87%).

AECO – There was 15,000 GJ/day of summer gas sold through this trading point increasing the total volume to 3,755 TJ and although the average price fell about \$1.06 from 2005/06 revenue increased to \$21 million (+700%)

Rate 10 – Revenue declined (-18%) as a result of a decline in sales volume and average resale price.

## **7.0 The Conversion of Commodity Resale Revenue to Commodity Resale Eligible Margin**

The Commodity Resale Eligible Revenue is calculated by taking into account a hurdle rate. The hurdle discount is 17/ (Total Commodity Resale Sales volume in a year for the commodity component) or \$.61/GJ and the eligible hurdle rate then is the annual average Sumas index (\$7.37/GJ) less the hurdle discount or \$6.76/GJ (Average Annual Sumas Index – Hurdle Discount). The hurdle rate times the cumulative annual volume by month results in the hurdle margin or \$20.4 million.

The Commodity Resale Eligible Revenue minus the hurdle margin together with Transportation and Storage Revenue then results in the Off-System Revenue eligible for incentive or \$20,425,799. The hurdle rate effectively eliminated about \$186,692,600 in margin revenue.

Terasen's incentive is 5% of the first \$1 million and 1.25% of remainder. Transportation and Other mitigation margin of \$19.5 million is added to Commodity Resale revenue eligible for an incentive of \$20.4 million and results in \$39.9 million. The first \$20,000,000 has an incentive of \$1,000,000. The remainder or \$19.9 million has 1.25% applied and results in \$.248 million. Therefore the total incentive to Terasen is \$1,000,000 plus \$248,247 or \$1,248,247 as shown in Table No. 10.

<b>Table No. 10 Profit Sharing Results</b>			
	<u><b>Core Market</b></u>	<u><b>Terasen Gas Inc.</b></u>	<u><b>Total</b></u>
<b>Core 95% Share Band</b>	\$ 19,900,000	\$ 1,000,000	\$ 20,000,000
<b>Core 98.75% Share Band</b>	\$ 19,628,595	\$ 248,247	\$ 19,877,058
<b>Total 2005/06</b>	\$ 38,628,595	\$ 1,248,247	\$ 39,877,058

## **8.0 Innovation**

1. T-South value created resulted in \$9.4 million margin as TGI realized a greater average capacity value at \$.41/GJ and mitigating a larger volume. This resulted in TGI covering the firm demand charge on Duke Energy's transportation system.
2. The two natural gas extraction agreements in Alberta were renegotiated and have the potential to generate significant revenue in future years.

## **9.0 Conclusion**

Terasen Gas was able to react to the market and capitalize on the high degree of gas price volatility as well as profit from the decontracting of T-South transportation to achieve a significant incentive (\$1,248,247). Therefore the profit sharing formula continues to provide sufficient motivation for GSMIP