



**LETTER NO. L-15-08**

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**VIA E-MAIL**

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May 1, 2008

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 2006/07

Further to your March 20, 2008 filing, the Commission accepts the calculation of incentive payments and issues the attached Commission staff report entitled "Staff Overview Report - Gas Supply Mitigation Incentive Program ("GSMIP") for 2006/07".

Yours truly,

*Original signed by*

*Constance M. Smith*  
*for:* Erica M. Hamilton

cms  
Enclosure  
cc: Interested Parties (TGI-GSMIP)

# **Staff Overview Report**

## **GAS SUPPLY MITIGATION**

### **INCENTIVE PROGRAM**

**(GSMIP)**

**2006 / 2007**

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**OVERVIEW OF THE  
GAS SUPPLY MITIGATION INCENTIVE PROGRAM (“GSMIP”)  
FOR 2006/07**

**1.0 INTRODUCTION**

This report is based on information supplied to the B.C. Utilities Commission by the Terasen Gas Inc. (“Terasen Gas” or the “Company”) Gas Supply Mitigation Incentive Program (“GSMIP”) Year end Report: November 2006 – October 2007) dated March 20, 2008. The information was submitted to Commission staff in the format of prior reports and this detail was relied on to develop the following overview.

**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 No. G-79-02 for the term between November 1, 2003 and October 31, 2004 (Appendix 1). The continuation of the formula for 2006/07 was approved by Order No. G-137-06 (Appendix 2). The following objectives originally established with the first program serve as guiding principles for the incentive structure of the 2006/07 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 Gas should be encouraged to maximize net revenues from off-system business activities.
3. Fair and Reasonable Incentives – The objective is to encourage new initiatives 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 Gas filed a report with the Commission on January 14, 2008 that outlined its performance relative to each SQI for the period November 2006 to October 2007. 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 and Terasen Gas executed its gas supply contracting according to the ACP.
2. Price Risk Management Plan (“PRMP”) – The original PRMP for November 2007 to October 2010 was submitted on April 26, 2007 and approved by L-38-07 dated May 18, 2007. The PRMP has been filed in a timely manner and implemented within the approved guidelines.
3. Counterparty Risk and Credit Exposure Management – Terasen Gas has effectively managed credit exposure and prudently avoided non-recoveries for the period in question.

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 2006 to October 2007 contract year.
5. **Comparison of Average Utility Gas Costs (Table No. 1)** – The Terasen Gas commodity cost is higher than other Pacific North West utilities due to the significant amount of Station #2 gas and the inability to access Rockies gas. Unfortunately, Terasen Gas has been unable to secure firm space on Northwest Pipelines Ltd. (“NWP”) and access lower priced Rockies gas which averaged \$4.42 CAD (see Table No.2) over the year (range was a high of \$7.03/GJ in Feb-07 to a low of \$1.11/GJ in Oct-07). The price of Rockies gas is depressed when supply from that area exceeds the capacity of the pipelines to deliver it to markets.

<b>Table No. 1 Comparison of the Average Utility Cost of Gas</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</b>	\$ 6.59	\$ 6.28	\$5.94	\$ 6.47	\$ 6.32

<b>Table No. 2 – Daily and Monthly Prices – 2006/07 (\$Cdn/GJ)</b>							
	<u>Monthly Index</u>				<u>Daily Index Average</u>		
	<u>Sumas</u>	<u>AECO</u>	<u>St#2</u>	<u>Rockies</u>	<u>Sumas</u>	<u>AECO</u>	<u>St#2</u>
<b>Nov-06</b>	\$ 7.83	<b>\$ 6.93</b>	<b>\$ 6.93</b>	6.53	\$ 7.73	7.259	7.015
<b>Dec-06</b>	<b>8.53</b>	7.52	7.75	6.23	7.70	6.910	6.910
<b>Jan-07</b>	7.08	6.92	6.17	4.64	7.24	6.505	6.461
<b>Feb-07</b>	7.78	6.86	7.08	<b>7.03</b>	<b>7.96</b>	<b>7.519</b>	<b>7.90</b>
<b>Mar-07</b>	7.94	7.42	7.10	6.77	7.24	7.010	6.602
<b>Apr-07</b>	7.23	7.02	6.79	3.82	7.31	7.148	6.783
<b>May-07</b>	7.08	7.09	6.69	4.84	7.12	6.855	6.699
<b>June-07</b>	6.89	6.86	6.56	3.38	6.44	6.217	6.138
<b>July-07</b>	6.06	6.14	5.62	3.35	5.55	5.153	5.123
<b>Aug-07</b>	5.23	5.05	4.73	3.38	5.39	4.903	4.979
<b>Sept-07</b>	<b>4.79</b>	<b>4.76</b>	<b>4.36</b>	2.03	<b>5.14</b>	<b>4.758</b>	<b>4.714</b>
<b>Oct-07</b>	5.58	4.98	5.07	<b>1.11</b>	6.17	5.593	5.666
<b>AVERAGE</b>	\$ 6.84	\$6.46	\$ 6.73	\$4.42	\$ 7.01	6.319	6.190

#### 4.0 INTERNAL AUDITORS EXAMINATION

Terasen Gas' internal auditors and Commission staff have analyzed and accepted the incentive payment calculation for 2006/07. The work the internal auditors performed is outlined in the attached memo dated February 21, 2008 (Appendix 3).

#### 5.0 GSMIP REPORT FOR 2006/07

##### 5.1 Economic Environment

Table No. 2, illustrates the average, maximum and minimum prices for Sumas, AECO and Station #2 during the reporting period. The maximum highs for monthly priced gas at all locations occurred between November and December 2006 while daily priced gas peaked in February 2007. September 2007 was the lowest priced month for the Monthly Index and the Daily Index. October, 2007 recorded the lowest prices for Rockies gas.

##### 5.2 Currency

The exchange rate reached a low of 1.1489 Canadian dollars to the United States dollar and hit a high in February 2007, of 1.2555 Canadian dollars in May 2007 during the examination period. The exchange rate continued to be highly volatile throughout the gas year.

##### 5.3 Gas Supply Mitigation Incentive Plan 2006/07

The GSMIP margin (shown in Table No. 3) available for the sharing incentive formula is \$38.3 million 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 Gas and its customers.

Table No. 3 – GSMIP Margin		
Transport & Other	\$ 23.1	57.9%
Commodity Resale	<u>\$ 15.2</u>	<u>42.1%</u>
<b>TOTAL GSMIP Margin</b>	<b>\$ 38.3</b>	<b>100%</b>

As shown in Table No. 4, the proposed GSMIP Margin for 2006/07 (\$38.3 million) represents an increase of about \$6.2 million over the average of the previous four years and \$1.6 million less than last year.

Table No. 4 – Total GSMIP (\$ millions) Mitigation Amounts from Current and Prior Years	
<u>YEAR</u>	<u>TOTAL</u>
2006/07	\$38.3
2005/06	39.9
2004/05	25.6
2003/04	32.0
2002/03	30.8

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

Table No. 5

	2005/06	2006/07	(+/-)	(+/-) %
<b>Margin (\$MM)</b>				
Transportation & Other	\$ 19.4	\$ 23.1	\$ 3.7	19%
Commodity Re-sale	\$ 20.4	\$ 15.2	\$ (5.2)	-26%
Total	\$ 39.9	\$ 38.3	\$ (1.6)	-4%

## 6.0 COMPONENTS OF GSMIP MITIGATION MARGIN

1. Transportation and Other Margin Revenue.
2. Commodity Optimization

Transportation margin, in this case is \$8.8 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 Pipeline (“SCP”) and Northwest Pipeline Corporation (“NWP”).

	T-South	T-North	Nova	Nova/ANG	T-South/ SCP	NWP
<b>Margin (\$000)</b>						
2005/06	\$ 9,361	\$ 2	\$ 3,028	\$ 532	\$ 5	\$ 107
2006/07	\$ 5,651	\$ 645	\$ 1,505	\$ 674	\$ 362	\$ -
<b>Margin (\$/GJ)</b>						
2005/06	\$ 0.41	\$ 0.06	\$ 0.11	\$ 0.15	\$ 0.52	\$ 0.12
2006/07	\$ 0.31	\$ 0.08	\$ 0.10	\$ 0.21	\$ 0.33	\$ -
<b>Volume (TJ)</b>						
2005/06	23,095	39	28,451	3,578	9	918
2006/07	17,971	8,544	15,041	3,255	1,104	0

Table 6: Transportation Margin and Volume by Pipeline Resource

T-South – Table No.6 indicates that 64% of the total Transportation Margin was gained from T-South. As producers decontracted for T-South, Terasen Gas was able to sell this capacity to other users and producers to offset its firm demand charges.

T-South/SCP – 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.

Nova – Margin was about \$.01/GJ lower than last year or about \$.10/GJ

Nova/ANG – The transportation market value increased from \$.15/GJ in 2005/06 to \$.21/GJ. Terasen Gas capitalized on TCPL maintenance on the BC system by selling excess commodity at Kingsgate and optimizing TCPL BC capacity using the alternative access service on TCPL Alberta.

Other Margin - In the category “Other” margin, revenue amounted to \$14.3 million and included; Capacity Assignments/Releases, T-South Revenue, Cochrane & Empress Extraction, Park & Lends to third parties as shown in Table No. 7 below.

### Other Optimization

	Capacity Assignments & Releases	T-South Revenue	Cochrane & Empress Extraction	Park & Lends	Total
<b>Margin (\$MM)</b>					
2005/06	\$2.5	\$0.0	\$0.9	\$3.0	\$6.4
2006/07	\$7.3	\$1.9	\$1.0	\$4.1	\$14.3

Table 7: Other Optimization Margin

Capacity Assignments & Release – The highest recovery for TCPL BC resource and almost a full toll for TCPL Alberta.

T-South Revenue – Terasen Gas assumed long term T-South capacity in exchange for payment of \$2 million and shed short term capacity.

Cochrane & Empress Extraction – The plant contributed about \$1 million. This facility extracts liquids from the gas at the Empress border and Terasen Gas is credited with the value of the liquids extracted. A new contract contributed an additional \$.4 million compared to former rates.

Park/Lend – Terasen Gas was able to capitalize on summer and winter price spreads and this activity contributed \$4.1 million or a \$1.1 million increase over the previous year.

## 6.2 Commodity Optimization

	2005/06	2006/07	(+/-)	(+/-) %
<b>Commodity Re-sale</b>				
Volume (PJ)	27.6	25.5	(2.2)	-8%
Revenue (\$MM)	\$ 207	\$ 185	\$ (22)	-11%

Table 8: Commodity Re-sale Volume & Revenue

In comparison to last year, volumes have decreased by 2.1 PJ or about 8% and corresponding revenue has declined by 11% 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).

	Hunt.	Kingsgate	Empress	AECO	Rate 10
<b>Revenue (\$MM)</b>					
2005/06	\$ 151.1	\$ 1.9	\$ 15.0	\$ 21.3	\$ 17.8
2006/07	\$ 109.9	\$ 33.9	\$ 16.3	\$ 2.5	\$ 22.6
<b>Volume (TJ)</b>					
2005/06	18,688	368	2,053	3,755	2,784
2006/07	14,563	4,946	2,303	354	3,303
<b>Price (\$/GJ)</b>					
2005/06	\$ 8.09	\$ 5.29	\$ 7.30	\$ 5.66	\$ 6.40
2006/07	\$ 7.55	\$ 6.85	\$ 7.09	\$ 6.96	\$ 6.85

Table 9: Commodity Re-sale Revenue, Volume and Average Re-sale Price by Location



**Tabulation Results from Table No.9 – Total Revenue, Total Volume and Average Resale Price**

Total Commodity Re-sale Revenue 2005/06 = \$207.1 million

Total Volume 2005/06 = 27,648,000 TJ. The average resale price is \$7.49/GJ for 2005/06

Total Commodity Re-sale Revenue 2006/07 = \$185.2 million

Total Volume 2006/07 = 25,469,000 TJ. The average resale price is \$7.27/GJ for 2006/07

Huntingdon – The majority of Resale Mitigation Revenue was generated through Huntingdon. As shown in Table No. 9, the average resale price was approximately \$.54 lower than last year and with increased volumes ( 4,125 TJ) revenue decreased by about \$41.2 million (27.3%).

Kingsgate – The volumes increased substantially (4,578 TJ) with the average price increasing about \$1.56/GJ so that Commodity Resale Revenue increased to about \$33.9 million (1684.2%).

Empress – There was about the same amount of generated revenue as last year.

AECO – There was only 354 TJ of summer gas sold through this trading point increasing the total volume to although the average price fell only \$.21/GJ from 2005/06. Revenue was about the same as last year.

Rate 10 – Revenue increased by \$4.8 million with volume increasing by 519 TJ. The price increased by 7% over last year.

## **7.0 THE CONVERSION OF COMMODITY RESALE REVENUE TO COMMODITY RESALE ELIGIBLE MARGIN**

The formula for calculating the Eligible Resale Margin is as follows:

Eligible Resale Margin = (Weighted Average Annual Sumas Monthly Index – Hurdle Discount) where the Hurdle Discount = 17 PJ/Annual Resale Margin.

The Hurdle Discount = 17/ (Total Commodity Resale Sales volume in a year for the commodity component) or 17/25.4 PJ (Table No. 9). The Hurdle Discount = 17/25.4 PJ = \$.67/GJ.

Hurdle Rate = Weighted Average Annual Sumas Monthly Index – Hurdle Discount = \$7.35 - \$.67/GJ = \$.59/GJ. Rounding results in the Hurdle Rate being = \$.60/GJ.

Commodity Eligible Margin Revenue = Hurdle Rate \* cumulative volume by month = \$.60/GJ \* 25,469,000 = \$15.2 million.

Table 9 indicates that total Commodity Resale Revenue for 2007/07 is \$185.2 million. Therefore, the hurdle rate effectively eliminated (about \$185.2 million minus \$15.2 million) \$170 million in Commodity Resale Revenue.

The Commodity Eligible Margin Revenue together with Transportation and Storage Revenue then results in the Margin Revenue eligible for incentive or \$38.3 million.

Terasen Gas' incentive is 5% of the first \$1 million and 1.25% of remainder. Transportation & Other mitigation margin of \$23.14 million are added to Commodity Resale revenue eligible for an incentive of \$15.2 million and results in \$38.3 million. The first \$20,000,000 has an incentive of \$1,000,000. The remainder or \$18.3 million has 1.25% applied and results in \$.229 million. Therefore the total incentive to Terasen Gas is \$1,000,000 plus \$.229 million or \$1.229 million. Customer's share is \$37.1 million (\$38.3 million - \$1.229 million).

A summary Table of the formula inputs and resulting eligible margin follows:

	UoM	2005/06	2006/07
<b>Commodity Resale</b>			
Hurdle Discount	Ratio	0.62	0.67
Resale Price	\$/GJ	\$ 7.49	\$ 7.27
Sumas Monthly Index	\$/GJ	\$ 7.37	\$ 7.35
Eligible Margin	\$/GJ	\$ 0.74	\$ 0.60
Eligible Margin	\$MM	\$ 20.4	\$ 15.2

Table 10: Inputs for Eligible Commodity Re-sale Margin Formula

## 8.0 UNIQUE MARKET INITIATIVES

- The significant summer maintenance on TransCanada Pipelines Limited it allowed Terasen Gas to utilize its assets. It increased Kingsgate commodity resales from \$2 million to \$34 million, Nova/ANG and SCP recoveries by \$.7 million and TCPL Alberta and BC capacity by \$1 million.
- \$.7 million was generated from the T-North cross-corridor credit system in 2006/07.
- Lobbying efforts with Westcoast Energy resulted in term differentiated rates and Authorized Overrun Service ("AOS"). This resulted in savings to customers of about \$2 to \$3 million per year and optimization of 3 PJ of T-South AOS capacity.
- Recovered \$2 million by assuming counterparties long term T-South capacity in exchange for the same amount of short term capacity.
- Newly negotiated natural gas liquids extraction contracts resulted in an increase of about \$.4 million.
- Favourable winter/summer differentials increased park and lend recoveries by \$1 million.
- Refilled Aitken Creek Storage facility in a cost effective manner after a delay in the renewal.

## 9.0 CONCLUSION

Terasen Gas introduced new innovations this year to take advantage of market opportunities in a number of areas.