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November 12, 2004

British Columbia Utilities Commission
Sixth Floor - 900 Howe Street
Vancouver, B.C.
V6Z 2N3

Attention: Mr. Robert J. Pellatt, Commission Secretary

Dear Sir:

**RE: Terasen Gas Inc. ("Terasen Gas")
2004 – 2007 performance Based Rate Plan 2004 Annual Review
Terasen Gas Response to Ministry of Energy and Mines ("MEM")
Information Request No. 1**

Terasen Gas respectfully submits the attached responses to MEM Information Request No. 1.

Twenty hard copies of the attached will be sent to the Commission office by Monday, November 15, 2004.

Yours very truly,

TERASEN GAS INC.

Original signed by Tom Loski

For: Scott A. Thomson

Attachment

cc. Registered Intervenors

TERASEN GAS INC.

2004 – 2007 PERFORMANCE BASED RATE PLAN
2004 ANNUAL REVIEW OF ITS 2005 REVENUE REQUIREMENT

RESPONSE TO MEM INFORMATION REQUEST NO. 1

ADVANCE MATERIAL

2005 Forecasts

1 Customer Growth

Reference: *Terasen Advance Materials Section a-4, page 4*

"To forecast residential account additions, actual household formation, estimated market share, and historical commodity price are statistically linked with actual amount additions to model annual growth on a service area basis."

1.1 *What are the statistical linkages that Terasen has identified and how are they applied mathematically to the account growth?*

Response

The relationships between actual account additions and actual household formations, estimated market share, and historical commodity prices were analyzed through multiple regression modeling. Various functional forms were investigated, including linear, log-linear, and log-log models. Additionally, both lag variables and interaction variables were analyzed.

The following model was deemed to be the "best fit" since the variables included were statistically significant at a 90% confidence level and the adjusted R-Square value was higher than the other models:

Account Additions = $\beta_0 + \beta_1(\text{Household Formation Growth Rate X Market Share}) + \beta_2(\text{Commodity Price})$

This model includes an interaction variable, household formation growth X market share, implying the presence of both household formation growth and market share has a combined impact on actual account additions (a more significant impact than using either variable individually).

To illustrate what is meant by an "interaction effect", consider the following: If we were manufacturing tires, and through experimenting with different treads found one tread to perform best on paved roads yet another tread performs best on dirt roads. In this case we would say there is an interaction between road conditions and tread type, when considering performance. Similarly, we have found an interaction between household formation growth rates and market share, when considering account additions.

TERASEN GAS INC.

**2004 – 2007 PERFORMANCE BASED RATE PLAN
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RESPONSE TO MEM INFORMATION REQUEST NO. 1

Once the parameters were estimated, projected household formation growth rates, market shares, and commodity prices were used to calculate the projected annual residential account additions.

TERASEN GAS INC.

2004 – 2007 PERFORMANCE BASED RATE PLAN
2004 ANNUAL REVIEW OF ITS 2005 REVENUE REQUIREMENT

RESPONSE TO MEM INFORMATION REQUEST NO. 1

2 *Volumes and Revenues*

Reference: *Terasen Advance Materials Section A-4, page 2*

"Consistent with the methodology used in prior years, the average use per customer is estimated for Rates 1, 2, 3 and 23 and is multiplied by the corresponding forecast of customers in each respective class to derive energy by rate class. The large volume industrial and transportation customer throughput forecast continues to rely on historical data, sector analysis and customer-specific survey results."

- 2.1 *What were the forecast amounts for each of the rate classes identified above, the approved amounts and actual amounts for each year from 1995 to present? Please identify any changes to forecasting methods as they occurred.*

Response

The table below provides a comparison of actual un-normalized consumption volumes recorded against budgeted amounts. Budget is equal to forecast. Data prior to 1997 was not readily available.

TERASEN GAS INC.

**2004 – 2007 PERFORMANCE BASED RATE PLAN
2004 ANNUAL REVIEW OF ITS 2005 REVENUE REQUIREMENT**

RESPONSE TO MEM INFORMATION REQUEST NO. 1

Volumes (TJs) ACTUAL

	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Rate 1	73,032	71,579	77,510	76,543	69,143	74,745	68,361
Rate 2	22,799	21,403	23,704	23,912	22,241	22,675	21,042
Rate 3	26,806	23,064	23,679	21,992	19,310	19,207	17,376
Rate 4	447	471	490	289	167	177	148
Rate 5	5,046	5,795	8,141	10,335	8,384	6,493	5,597
Rate 6	627	576	610	546	453	326	241
Rate 7	6,566	5,985	1,468	1,061	294	100	84
Rate 22	46,740	44,988	46,817	45,494	40,286	41,169	39,384
Rate 23	542	2,595	2,929	2,448	2,733	3,499	3,557
Rate 25	7,774	7,765	7,827	8,584	9,842	12,986	13,347
Rate 27	2,909	2,645	5,548	5,456	5,628	6,090	5,713
Total	<u>193,288</u>	<u>186,866</u>	<u>198,723</u>	<u>196,660</u>	<u>178,481</u>	<u>187,467</u>	<u>174,850</u>

Volumes (TJs) BUDGET

	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Rate 1	75,898	76,783	77,793	78,542	77,139	77,511	75,046
Rate 2	21,864	23,808	24,270	24,294	23,828	23,662	23,809
Rate 3	28,356	23,562	24,499	25,425	23,030	21,915	20,079
Rate 4	423	428	428	475	341	340	146
Rate 5	3,562	4,896	6,224	7,093	9,303	7,814	6,280
Rate 6	1,157	846	620	712	736	441	557
Rate 7	3,719	3,597	2,826	329	988	335	118
Rate 22	41,796	48,616	46,471	45,220	42,797	40,701	41,358
Rate 23	-	2,904	2,693	2,397	3,028	4,306	3,816
Rate 25	6,327	8,041	7,740	7,666	10,197	11,139	11,899
Rate 27	2,471	3,474	2,202	6,132	5,351	5,577	6,083
Total	<u>185,573</u>	<u>196,955</u>	<u>195,766</u>	<u>198,285</u>	<u>196,738</u>	<u>193,742</u>	<u>189,190</u>

Volumes (TJs) VARIANCE

	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Rate 1	(2,866)	(5,204)	(283)	(1,999)	(7,996)	(2,766)	(6,685)
Rate 2	935	(2,405)	(566)	(382)	(1,587)	(987)	(2,767)
Rate 3	(1,550)	(498)	(820)	(3,433)	(3,720)	(2,708)	(2,703)
Rate 4	24	43	62	(186)	(174)	(163)	2
Rate 5	1,484	899	1,917	3,242	(919)	(1,321)	(683)
Rate 6	(530)	(270)	(10)	(166)	(283)	(115)	(316)
Rate 7	2,847	2,388	(1,358)	732	(694)	(235)	(34)
Rate 22	4,944	(3,628)	346	274	(2,511)	468	(1,974)
Rate 23	542	(309)	236	51	(295)	(807)	(259)
Rate 25	1,447	(276)	87	918	(355)	1,847	1,448
Rate 27	438	(829)	3,346	(676)	277	513	(370)
Total	<u>7,715</u>	<u>(10,089)</u>	<u>2,957</u>	<u>(1,625)</u>	<u>(18,257)</u>	<u>(6,275)</u>	<u>(14,340)</u>

TERASEN GAS INC.

2004 – 2007 PERFORMANCE BASED RATE PLAN
2004 ANNUAL REVIEW OF ITS 2005 REVENUE REQUIREMENT

RESPONSE TO MEM INFORMATION REQUEST NO. 1

Reference: *Terasen Advance Materials Section A-4, page 6*

"With gas prices stabilizing somewhat in 2004, normalized residential use rates are expected to remain at 2003 levels."

2.2 *What were the gas rates for the period from 2000 to present?*

Response

Please see tables below.

TERASEN GAS INC.

2004 – 2007 PERFORMANCE BASED RATE PLAN
2004 ANNUAL REVIEW OF ITS 2005 REVENUE REQUIREMENT

RESPONSE TO MEM INFORMATION REQUEST NO. 1

**Terasen Gas Rate Schedule 1: Residential Service
Lower Mainland Service Area**

This Rate Schedule is applicable to firm Gas supplied at one Premises for use in approved appliances for all residential applications in single-family residences, separately metered single-family townhouses, rowhouses and apartments and single metered apartment block with four or less apartments.

Effective Date	1-Jan-00	1-Mar-00	1-Jul-00	1-Sep-00	1-Jan-01	1-Jul-01	1-Oct-01	1-Jan-02	1-Mar-03	1-Apr-03	1-Jan-04	1-Apr-04	1-May-04	1-Jul-04
Basic Charge	\$ 7.66	\$ 7.66	\$ 7.66	\$ 7.66	\$ 8.66	\$ 8.66	\$ 8.66	\$ 10.00	\$ 10.31	\$ 10.31	\$ 10.75	\$ 10.75	\$ 10.75	\$ 10.75
Delivery Charge	\$ 2.327	\$ 2.327	\$ 2.327	\$ 2.327	\$ 2.632	\$ 2.632	\$ 2.632	\$ 2.502	\$ 2.579	\$ 2.579	\$ 2.690	\$ 2.690	\$ 2.690	\$ 2.690
Del. Charge Between April 1 and Nov 1														
Del. Charge Between Nov 1 and April 1														
Commodity Cost Recovery Charge	\$ 3.985	\$ 3.985	\$ 6.337	\$ 6.337	\$ 8.415	\$ 8.415	\$ 6.595	\$ 6.061	\$ 6.061	\$ 7.730	\$ 7.167	\$ 6.020	\$ 6.518	\$ 7.005
Midstream Cost Recovery Charge											\$ 1.147	\$ 0.649	\$ 0.649	\$ 0.649
Rate Rider 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Rider 2 (per GJ)	\$ -	\$ -	\$ -	\$ -	\$ (0.077)	\$ (0.077)	\$ (0.077)	\$ -	\$ 0.043	\$ 0.043	\$ -	\$ -	\$ -	\$ -
Rate Rider 2 (per month)	\$ -	\$ -	\$ -	\$ -	\$ (1.000)	\$ (1.000)	\$ (1.000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Rider 3	\$ (0.043)	\$ (0.043)	\$ (0.043)	\$ (0.043)	\$ (0.064)	\$ (0.064)	\$ (0.064)	\$ (0.011)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Rider 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Rider 5	\$ 0.022	\$ 0.022	\$ 0.022	\$ 0.022	\$ 0.046	\$ 0.046	\$ 0.046	\$ 0.100	\$ 0.134	\$ 0.134	\$ 0.195	\$ 0.195	\$ 0.195	\$ 0.195
Rate Rider 6	\$ 0.151	\$ 0.151	\$ 0.151	\$ 0.151	\$ 0.407	\$ 0.407	\$ 0.937	\$ 0.570	\$ 0.570	\$ 0.570	\$ -	\$ -	\$ -	\$ -
Rate Rider 6 Between April 1 and Nov 1														
Rate Rider 6 Between Nov 1 and April 1														

TERASEN GAS INC.

2004 – 2007 PERFORMANCE BASED RATE PLAN
2004 ANNUAL REVIEW OF ITS 2005 REVENUE REQUIREMENT

RESPONSE TO MEM INFORMATION REQUEST NO. 1

**Terasen Gas Rate Schedule 1: Residential Service
Inland Service Area**

This Rate Schedule is applicable to firm Gas supplied at one Premises for use in approved appliances for all residential applications in single-family residences, separately metered single-family townhouses, rowhouses and apartments and single metered apartment block with four or less apartments.

Effective Date	1-Jan-00	1-Mar-00	1-Jul-00	1-Sep-00	1-Jan-01	1-Jul-01	1-Oct-01	1-Jan-02	1-Mar-03	1-Apr-03	1-Oct-03	1-Jan-04	1-Apr-04	1-May-04	1-Jul-04
Basic Charge	\$ 7.66	\$ 7.66	\$ 7.66	\$ 7.66	\$ 8.66	\$ 8.66	\$ 8.66	\$ 10.00	\$ 10.31	\$ 10.31	\$ 10.31	\$ 10.75	\$ 10.75	\$ 10.75	\$ 10.75
Delivery Charge	\$ 2.327	\$ 2.327	\$ 2.327	\$ 2.327	\$ 2.632	\$ 2.632	\$ 2.632	\$ 2.502	\$ 2.579	\$ 2.579	\$ 2.579	\$ 2.690	\$ 2.690	\$ 2.690	\$ 2.690
Del. Charge Between April 1 and Nov 1															
Del. Charge Between Nov 1 and April 1															
Commodity Cost Recovery Charge	\$ 3.830	\$ 3.830	\$ 6.150	\$ 6.150	\$ 8.207	\$ 8.207	\$ 6.434	\$ 5.955	\$ 5.955	\$ 7.628	\$ 7.628	\$ 7.060	\$ 6.020	\$ 6.518	\$ 7.005
Midstream Cost Recovery Charge												\$ 1.040	\$ 0.542	\$ 0.542	\$ 0.542
Rate Rider 1	\$ 1.400	\$ 2.240	\$ (0.080)	\$ 3.100	\$ 3.307	\$ 1.982	\$ 3.225	\$ 2.661	\$ 2.661	\$ 0.988	\$ 1.746	\$ 2.884	\$ 2.884	\$ 2.884	\$ 3.370
Rate Rider 2 (per GJ)	\$ -	\$ -	\$ -	\$ -	\$ (0.077)	\$ (0.077)	\$ (0.077)	\$ -	\$ 0.043	\$ 0.043	\$ 0.043	\$ -	\$ -	\$ -	\$ -
Rate Rider 2 (per month)	\$ -	\$ -	\$ -	\$ -	\$ (1.000)	\$ (1.000)	\$ (1.000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Rider 3	\$ (0.043)	\$ (0.043)	\$ (0.043)	\$ (0.043)	\$ (0.064)	\$ (0.064)	\$ (0.064)	\$ (0.011)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Rider 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Rider 5	\$ 0.022	\$ 0.022	\$ 0.022	\$ 0.022	\$ 0.046	\$ 0.046	\$ 0.046	\$ 0.100	\$ 0.134	\$ 0.134	\$ 0.134	\$ 0.195	\$ 0.195	\$ 0.195	\$ 0.195
Rate Rider 6	\$ 0.151	\$ 0.151	\$ 0.151	\$ 0.151	\$ 0.407	\$ 0.407	\$ 0.937	\$ 0.570	\$ 0.570	\$ 0.570	\$ 0.570	\$ -	\$ -	\$ -	\$ -
Rate Rider 6 Between April 1 and Nov 1															
Rate Rider 6 Between Nov 1 and April 1															

TERASEN GAS INC.

2004 – 2007 PERFORMANCE BASED RATE PLAN
2004 ANNUAL REVIEW OF ITS 2005 REVENUE REQUIREMENT

RESPONSE TO MEM INFORMATION REQUEST NO. 1

**Terasen Gas Rate Schedule 1: Residential Service
Columbia Service Area**

This Rate Schedule is applicable to firm Gas supplied at one Premises for use in approved appliances for all residential applications in single-family residences, separately metered single-family townhouses, rowhouses and apartments and single metered apartment block with four or less apartments.

Effective Date	1-Jan-00	1-Mar-00	1-Jul-00	1-Sep-00	1-Jan-01	1-Jul-01	1-Oct-01	1-Jan-02	1-Mar-03	1-Apr-03	1-Jan-04	1-Apr-04	1-May-04	1-Jul-04
Basic Charge	\$ 7.66	\$ 7.66	\$ 7.66	\$ 7.66	\$ 8.66	\$ 8.66	\$ 8.66	\$ 10.00	\$ 10.31	\$ 10.31	\$ 10.75	\$ 10.75	\$ 10.75	\$ 10.75
Delivery Charge	\$ 2.327	\$ 2.327	\$ 2.327	\$ 2.327	\$ 2.632	\$ 2.632	\$ 2.632	\$ 2.502	\$ 2.579	\$ 2.579	\$ 2.690	\$ 2.690	\$ 2.690	\$ 2.690
Del. Charge Between April 1 and Nov 1														
Del. Charge Between Nov 1 and April 1														
Commodity Cost Recovery Charge	\$ 3.879	\$ 3.879	\$ 6.225	\$ 6.225	\$ 8.354	\$ 8.354	\$ 6.531	\$ 6.052	\$ 6.052	\$ 7.711	\$ 7.196	\$ 6.020	\$ 6.518	\$ 7.005
Midstream Cost Recovery Charge											\$ 1.176	\$ 0.678	\$ 0.678	
Rate Rider 1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Rider 2 (per GJ)	\$ -	\$ -	\$ -	\$ -	\$ (0.077)	\$ (0.077)	\$ (0.077)	\$ -	\$ 0.043	\$ 0.043	\$ -	\$ -	\$ -	\$ -
Rate Rider 2 (per month)	\$ -	\$ -	\$ -	\$ -	\$ (1.000)	\$ (1.000)	\$ (1.000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Rider 3	\$ (0.043)	\$ (0.043)	\$ (0.043)	\$ (0.043)	\$ (0.064)	\$ (0.064)	\$ (0.064)	\$ (0.011)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Rider 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rate Rider 5	\$ 0.022	\$ 0.022	\$ 0.022	\$ 0.022	\$ 0.046	\$ 0.046	\$ 0.046	\$ 0.100	\$ 0.134	\$ 0.134	\$ 0.195	\$ 0.195	\$ 0.195	\$ 0.195
Rate Rider 6	\$ 0.151	\$ 0.151	\$ 0.151	\$ 0.151	\$ 0.407	\$ 0.407	\$ 0.937	\$ 0.570	\$ 0.570	\$ 0.570	\$ -	\$ -	\$ -	\$ -
Rate Rider 6 Between April 1 and Nov 1														
Rate Rider 6 Between Nov 1 and April 1														

TERASEN GAS INC.

2004 – 2007 PERFORMANCE BASED RATE PLAN
2004 ANNUAL REVIEW OF ITS 2005 REVENUE REQUIREMENT

RESPONSE TO MEM INFORMATION REQUEST NO. 1

2.3 *What is the relationship between oil prices and gas prices in the opinion of Terasen? What evidence can Terasen provide to support this opinion?*

Response

Terasen does not forecast gas or oil prices nor holds an opinion regarding the relationship between oil and gas prices. Terasen Gas utilizes published natural gas and oil price forecasts from third party sources for portfolio evaluations and rate comparisons.

Reference: *Terasen Advance Materials Section A-4, page 10*

"This revenue forecast reflects the anticipated cancellation of the BC Hydro contract at the end of October 2005 and assumes that a replacement customer will be found to offset this loss starting November 2005."

2.4 *What is the market for this service and when does Terasen expect to have identified a replacement customer?*

Response

BC Hydro has exercised the put option contained within their Southern Crossing Pipeline ("SCP") contract. One factor which will contribute to market re-evaluation of SCP service is the amount of firm capacity de-contracting on Westcoast Energy, which take effect November 1, 2004 and 2005 that will result in significant increases in the Westcoast Energy T-South tolls. This increase may be as high as 40% to 50% by 2006.

At This time, Terasen Gas expects it will likely use this SCP capacity as part of its portfolio of midstream resources, which allows for a reduction in its firm service on Westcoast Energy. If another customer is found during the next year that provides higher value for the SCP capacity, Terasen Gas would consider contracting with that customer and re-contracting its Westcoast Energy capacity or contracting for another resource.

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RESPONSE TO MEM INFORMATION REQUEST NO. 1

3 *Expenses*

Reference: *Terasen Advance Materials Section B-8, page 7*

"Terasen Gas proposes that net variances from the approved Core Market Administration Expense of \$1,892,408 (as previously stated) be shared 50/50 with Customers and shareholders."

3.1 *What is the quantitative impact on customers of this proposal in terms of costs and benefits?*

Response

If additional net EMS revenue is achieved then customers would receive 50% of the additional profit, likewise if less net EMS revenue is achieved customers would receive 50% of the loss. In this way the risk/reward associated with generating EMS revenue is shared equally by both customers and shareholders.

TERASEN GAS INC.

2004 – 2007 PERFORMANCE BASED RATE PLAN
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RESPONSE TO MEM INFORMATION REQUEST NO. 1

4 *Rate Base*

Reference: *Terasen Advance Materials Section A-3, page 10*

"The large accumulation in 2004 in the RSAM account is due to a combination of lower use rates than those approved in the 2004 Decision and warmer than normal weather."

4.1 *Please provide a complete variance explanation for the RSAM accumulation in 2004 including the variance amounts.*

Response

The RSAM calculation is based on the difference on a use per customer basis between forecast margin used for rate making purposes and actual margins received from the weather sensitive residential and commercial customers. This methodology was approved by the Utilities Commission and Terasen Gas has been operating with an RSAM mechanism since 1994.

Weather for the first nine months of 2004 was 7% warmer than normal which was a major factor behind the accumulation of the 2004 RSAM balance.

Details behind the 2004 projected RSAM accumulation are attached under Appendix A.

TERASEN GAS INC.

2004 – 2007 PERFORMANCE BASED RATE PLAN
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RESPONSE TO MEM INFORMATION REQUEST NO. 1

TERASEN GAS INC.
RSAM GROSS ADDITIONS - SUMMARY BY SERVICE AREA
PROJECTED FOR THE YEAR ENDED DECEMBER 31, 2004

Line No.	Service Area	Month	Rate 1	Rate 2	Rate 3/23	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Lower Mianland	Winter	\$5,246,006	\$347,055	(\$869,303)	\$4,723,758
2		Summer	4,444,409	847,176	817,132	6,108,717
3			\$9,690,415	\$1,194,231	(\$52,171)	\$10,832,475
4						
5						
6	Inland	Winter	\$1,887,842	\$45,108	(\$345,731)	\$1,587,219
7		Summer	1,639,965	146,191	146,476	1,932,632
8			\$3,527,806	\$191,299	(\$199,255)	\$3,519,851
9						
10						
11	Columbia	Winter	\$194,406	(\$5,182)	\$26,085	\$215,308
12		Summer	292,416	10,791	36,755	339,962
13			\$486,822	\$5,608	\$62,840	\$555,270
14						
15						
16	All Service Areas					
17	Total	Winter	\$7,328,253	\$386,980	(\$1,188,949)	\$6,526,285
18	Total	Summer	6,376,790	1,004,158	1,000,363	8,381,311
19	Total per Rate		\$13,705,043	\$1,391,138	(\$188,586)	\$14,907,596
20						
21	Adjust Shortfall for Rider 2 in year 2003		37,063	21,003	42,534	100,600
22						
23	Total RSAM Gross Additions (2004 Projection)		\$13,742,106	\$1,412,141	(\$146,052)	\$15,008,196
24	(Section A, Tab 3, Page 11.2, Column 4, Line 20)					
25						
26						
27	Note: Winter months are January to March and November to December. Summer months are April to October					

TERASEN GAS INC.

2004 – 2007 PERFORMANCE BASED RATE PLAN
2004 ANNUAL REVIEW OF ITS 2005 REVENUE REQUIREMENT

RESPONSE TO MEM INFORMATION REQUEST NO. 1

TERASEN GAS INC.

RSAM GROSS ADDITIONS - SUMMARY BY RATE CLASS

PROJECTED FOR THE YEAR ENDED DECEMBER 31, 2004

RATE 1 - RESIDENTIAL

Line No.	Month	Volume (GJ)	Customers	Use/Customer (GJ)			RSAM Volume (GJ)	Delivery Charge (\$/GJ)	Monthly Margin Col.(8) * Col.(9)	Cumulative Margin
				Actual Col.(3) / Col.(4)	Forecast	Variance Col.(6) - Col.(5)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Dec 2003 (Adjustment)	(508,396.5)							\$1,330,975	\$1,330,975
2	Jan 2004 (Actual)	11,352,590.5	698,254	16.2585	16.6809	0.4224	295,206	\$2.690	\$794,103	\$2,125,078
3	Feb (Actual)	8,895,048.9	699,113	12.7233	13.9099	1.1866	830,465	\$2.690	\$2,233,950	\$4,359,028
4	Mar (Actual)	7,122,889.5	699,643	10.1807	11.7544	1.5737	1,103,801	\$2.690	\$2,969,226	\$7,328,253
5	Apr (Actual)	4,234,558.8	699,361	6.0549	7.6143	1.5594	1,093,010	\$2.690	\$2,940,197	\$10,268,451
6	May (Actual)	2,907,635.7	699,143	4.1589	5.0134	0.8545	599,311	\$2.690	\$1,612,146	\$11,880,597
7	Jun (Actual)	2,018,306.2	699,447	2.8856	3.5134	0.6278	440,620	\$2.690	\$1,185,267	\$13,065,864
8	Jul (Actual)	1,952,747.4	699,521	2.7915	2.9642	0.1727	121,876	\$2.690	\$327,846	\$13,393,710
9	Aug (Actual)	1,730,334.6	700,200	2.4712	2.9738	0.5026	352,778	\$2.690	\$948,973	\$14,342,683
10	Sept (Actual)	2,996,614.9	702,010	4.2686	3.9302	(0.3384)	(237,041)	\$2.690	(\$637,639)	\$13,705,043
11	Oct (Projection)	5,559,229.9	704,771	7.8880	7.8877	(0.0003)	0	\$2.690	\$0	\$13,705,043
12	Nov (Projection)	8,661,898.0	707,311	12.2462	12.2461	(0.0001)	0	\$2.690	\$0	\$13,705,043
13	Dec (Projection)	11,521,020.1	708,925	16.2514	16.2508	(0.0006)	0	\$2.690	\$0	\$13,705,043
14	Total	<u>68,444,477.9</u>		<u>98.1789</u>	<u>104.7391</u>	<u>6.5602</u>	<u>4,600,025</u>		<u>\$13,705,043</u>	

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TERASEN GAS INC.

RSAM GROSS ADDITIONS - SUMMARY BY RATE CLASS

PROJECTED FOR THE YEAR ENDED DECEMBER 31, 2004

RATE 2 - SMALL COMMERCIAL

Line No.	Month	Volume (GJ)	Customers	Use/Customer (GJ)			RSAM Volume (GJ)	Delivery Charge (\$/GJ)	Monthly Margin Col.(8) * Col.(9)	Cumulative Margin
				Actual Col.(3) / Col.(4)	Forecast	Variance Col.(6) - Col.(5)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Dec 2003 (Adjustment)	(52,477.8)							\$115,179	\$115,179
2	Jan 2004 (Actual)	3,708,257.9	71,133	52.1313	49.5886	(2.5427)	(180,189)	\$2.252	(\$405,785)	(\$290,606)
3	Feb (Actual)	2,821,008.2	71,228	39.6053	41.0629	1.4576	103,922	\$2.252	\$234,032	(\$56,574)
4	Mar (Actual)	2,216,081.8	71,027	31.2006	33.9857	2.7851	196,960	\$2.252	\$443,555	\$386,980
5	Apr (Actual)	1,311,984.7	70,755	18.5426	21.6086	3.0660	215,550	\$2.252	\$485,419	\$872,400
6	May (Actual)	937,344.9	70,668	13.2641	14.1932	0.9291	64,385	\$2.252	\$144,996	\$1,017,395
7	Jun (Actual)	576,048.9	70,490	8.1721	10.0634	1.8913	132,315	\$2.252	\$297,973	\$1,315,368
8	Jul (Actual)	652,524.0	70,310	9.2807	8.5369	(0.7438)	(52,622)	\$2.252	(\$118,505)	\$1,196,863
9	Aug (Actual)	522,504.5	70,252	7.4376	8.4352	0.9976	69,631	\$2.252	\$156,808	\$1,353,671
10	Sept (Actual)	722,875.0	70,393	10.2691	10.5176	0.2485	16,637	\$2.252	\$37,467	\$1,391,138
11	Oct (Projection)	1,511,619.0	70,420	21.4658	21.4720	0.0062	0	\$2.252	\$0	\$1,391,138
12	Nov (Projection)	2,431,460.0	70,508	34.4849	34.4753	(0.0096)	(0)	\$2.252	(\$0)	\$1,391,138
13	Dec (Projection)	3,257,535.8	70,583	46.1518	46.1314	(0.0204)	(0)	\$2.252	(\$0)	\$1,391,138
14	Total	<u>20,616,766.9</u>		<u>292.0059</u>	<u>300.0708</u>	<u>8.0649</u>	<u>566,589</u>		<u>\$1,391,138</u>	

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TERASEN GAS INC.

RSAM GROSS ADDITIONS - SUMMARY BY RATE CLASS

PROJECTED FOR THE YEAR ENDED DECEMBER 31, 2004

RATE 3/23 - LARGE COMMERCIAL

Line No.	Month	Volume (GJ)	Customers	Use/Customer (GJ)			RSAM Volume (GJ)	Delivery Charge (\$/GJ)	Monthly Margin Col.(8) * Col.(9)	Cumulative Margin
				Actual Col.(3) / Col.(4)	Forecast	Variance Col.(6) - Col.(5)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Dec 2003 (Adjustment)	29,917.1							(\$61,867)	(\$61,867)
2	Jan 2004 (Actual)	3,648,578.1	6,192	589.2406	523.0018	(66.2388)	(408,860)	\$1.941	(\$793,597)	(\$855,464)
3	Feb (Actual)	2,717,547.8	6,187	439.2351	446.0949	6.8598	42,079	\$1.941	\$81,675	(\$773,789)
4	Mar (Actual)	2,324,597.5	6,161	377.3085	401.2343	23.9258	146,399	\$1.941	\$284,160	(\$489,629)
5	Apr (Actual)	1,589,366.5	6,171	257.5541	289.4285	31.8744	196,708	\$1.941	\$381,809	(\$107,820)
6	May (Actual)	1,168,010.4	6,064	192.6139	213.3724	20.7585	126,181	\$1.941	\$244,917	\$137,097
7	Jun (Actual)	846,151.5	6,061	139.6059	156.0504	16.4445	100,332	\$1.941	\$194,745	\$331,842
8	Jul (Actual)	719,695.3	6,066	118.6441	117.2825	(1.3616)	(7,908)	\$1.941	(\$15,350)	\$316,492
9	Aug (Actual)	671,278.5	6,063	110.7172	118.8849	8.1677	49,521	\$1.941	\$96,120	\$412,612
10	Sept (Actual)	833,102.9	6,068	137.2945	164.2006	26.9061	163,237	\$1.941	\$316,843	\$729,455
11	Oct (Projection)	1,865,066.6	6,151	303.2136	284.4247	(18.7889)	(112,684)	\$1.941	(\$218,721)	\$510,734
12	Nov (Projection)	2,584,071.9	6,210	416.1146	389.4584	(26.6562)	(160,721)	\$1.941	(\$311,960)	\$198,775
13	Dec (Projection)	3,221,049.7	6,234	516.6907	483.5668	(33.1239)	(199,567)	\$1.941	(\$387,360)	(\$188,586)
14	Total	22,218,433.7		3,598.2329	3,587.0002	(11.2327)	(65,285)		(\$188,586)	

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RESPONSE TO MEM INFORMATION REQUEST NO. 1

5 *Efficiency Measures*

Reference: *Terasen Advance Materials Section A-8, page 1*

"In summary, customer's share of the 2004 earnings shortfall is projected to be \$204,000 pre-tax. However, before the accounting for restructuring cost, the customer's share of the earnings surplus would have been \$4,582,000."

5.1 *What are the reasons and amounts associated with both the variance from the authorized return?*

Response

Before the consideration of the 2003 restructuring cost, Terasen Gas is projecting a 2004 return on common equity of 9.94%, or 0.79% higher than the authorized return of 9.15%. This is due primarily to productivity improvements made possible by the integration of many of the back-office activities of Terasen Gas and Terasen Gas (Vancouver Island). A summary of the variances contributing to the higher return on equity is as follows:

	(\$'000)	Customers' Share 50%
Lower Gross Margin	(\$648)	(\$324)
Lower O&M	11,853	5,927
Lower Depreciation and Amortization	1,754	877
Lower Other Revenue	(933)	(467)
Higher Interest Expense	(1,562)	(781)
Higher Rate Base and Others	(1,300)	(650)
Total pre-tax variance	<u>\$9,164</u>	<u>\$4,582</u>

After the restructuring cost of \$9,571,000, which was incurred in the last six months of 2003 is taken into consideration, the 2004 projected return on common equity decreases to 9.12% and the revised total pre-tax variance is now \$407,000. Customers' portion of the 2004 earnings shortfall amounts to \$204,000 after restructuring costs.

	(\$'000)	Customers' Share 50%
Total pre-tax variance before restructuring cost	\$9,164	\$4,582
2003 restructuring cost	(9,571)	(4,786)
Adjusted pre-tax variance after restructuring cost	<u>(\$407)</u>	<u>(\$204)</u>

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RESPONSE TO MEM INFORMATION REQUEST NO. 1

Service Quality Indicators

6 *Complaints to the BCUC*

Reference: *Terasen Advance Materials Section B-2, page 11*

"Terasen submits that given the nature of the complaints, the fact the numbers have increased does not indicate a deterioration in service quality."

6.1 *What type of complaints does Terasen consider would indicate deteriorating service quality?*

Response

The quote is taken from:

Terasen Gas Advance Materials
Section B-2: Service quality Assurance Mechanism
Section 2: Components of the Service Quality Assurance Mechanism
SQI #9: Number of Customer Complaints to the BCUC

This SQI is intended to measure Customer Satisfaction and is new for the 2004-2007 PBR. This SQI is simply a count of the complaints submitted to the Commission. Terasen Gas has monitored this information since repatriation of the call centre and billing activities from BC Hydro in mid-2002, so annual information is only available in 2003 and 2004 (year-to-date).

As noted in the Advance Materials, although the number of complaints has increased over 2003 levels, the majority of complaints deal with billing and collection matters where Terasen Gas has appropriately applied approved tariffs in an effort to improve collections and reduce bad debts for the benefit of all customers. The response to the majority of these complaints is in the form of policy explanation as opposed to error correction.

Terasen Gas believes that some complaints will occur regardless of the level of service provided and a minimum level of complaints is not inappropriate. In collections for example, some customers believe that Terasen Gas should be willing to take on more bad debt risk on behalf of rate payers than we believe is prudent. Terasen Gas reviews all complaints, corrects any valid errors, and implements policy changes as necessary to address common concerns.

Terasen Gas has been reviewing the trends in number of complaints that are valid, but has found that in many cases the validity is subjective and difficult to measure, particularly with the large sample size to examine.

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RESPONSE TO MEM INFORMATION REQUEST NO. 1

Terasen Gas also monitors telephone and written complaints logged in the call centre for the purpose of identifying trends and ensuring proactive management of new issues. Telephone complaints to the call centre have decreased over the past year.

It is constructive to keep in mind that while there has been an increase in BCUC complaints over 2003, the number of complaints in 2004 (year to date) represent less than 0.02% of our customers (or approximately 1 in every 5,200 customers). Given the majority of complaints come from customers with collection issues, Terasen submits that the number of complaints to the BCUC does not represent a service quality problem.