



**Tom A. Loski**  
Chief Regulatory Officer

16705 Fraser Highway  
Surrey, B.C. V4N 0E8  
Tel: (604) 592-7464  
Cell: (604) 250-2722  
Fax: (604) 576-7074  
Email: [tom.loski@terasengas.com](mailto:tom.loski@terasengas.com)  
[www.terasengas.com](http://www.terasengas.com)

November 3, 2008

Regulatory Affairs Correspondence  
Email: [regulatory.affairs@terasengas.com](mailto:regulatory.affairs@terasengas.com)

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

Attention: Ms. Erica M. Hamilton, Commission Secretary

Dear Ms. Hamilton:

**RE: Terasen Gas Inc. ("Terasen Gas")  
2008–2009 Extension of the 2004–2007 Multi-Year Performance Based Rate Plan  
2008 Annual Review of 2009 Revenue Requirements and Rates  
Response to the British Columbia Utilities Commission ("BCUC" or the  
"Commission") Information Request ("IR") No. 1**

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In accordance with British Columbia Utilities Commission (the "Commission") Order No. G-142-08, on October 8, 2008 Terasen Gas submitted its 2008 Annual Review Advance Materials (the "Advance Materials") for the purposes of setting rates for 2009. Subsequent to the October 8<sup>th</sup> filing, economic circumstances warranted review of the industrial forecast and customer additions assumptions embedded in the Advance Materials. Terasen Gas filed an Amended Application on November 3, 2008 (the "November 3 Amended Application").

Pursuant to Commission Order No. G-142-08 setting out the Regulatory Timetable Terasen Gas respectfully submits the attached response to BCUC IR No. 1. Please note that all of the responses to the IRs are based on and reflect the November 3 Amended Application.

If there are any questions regarding the attached, please contact the undersigned.

Yours very truly,

**TERASEN GAS INC.**

***Original signed:***

Tom A. Loski

Attachment

cc (e-mail only): Registered Parties



Terasen Gas Inc. ("TGI", "Terasen Gas" or the "Company") 2008 Annual Review for 2009 Revenue Requirements Application (the "Application")	Submission Date: November 3, 2008
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**1.0 Reference: Exhibit B-1, Section A-1, 2008 Revenue Requirement, pp. 2 and 4**

"The revenue requirement increase is largely attributable to a decrease in use rates; the reduction in use rates contributes \$26.9 million, or 74.1%, of the revenue requirement increase before earnings sharing. Changes in the average residential gas use rates, as experienced over the last several years, have been driven by more efficient appliances, better insulated homes and multi-family home construction. The change in use rates is offset in part by customer growth which reduces revenue requirement by \$3.5 million; a decrease of \$4.6 million associated with additional volumes offset by an increase of \$1.1 million due to a higher rate base".

- 1.1 Please reconcile the customer use rate and customer growth revenue requirements on Exhibit B-1, Section A, Tab 1, p. 2 to the \$4.6 million decrease due to Customer Growth and Use in the Summary of the 2009 Revenue Requirement Decrease schedule on Exhibit B-1, Section A-1, p. 4 in the same format as the in BCUC IR No. 1 in 2007 Annual Review for 2008 RRA.



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## **Response:**

Please find below a reconciliation as requested, which is based on the Amended Annual Review Application dated November 3, 2008 where both customer growth and industrial demand have been reduced.

### Volume/Revenue Related Variance

1. Lower Revenue Requirement from Change in Gross Margin due to Customer Growth (RSAM Classes)	\$ (4.3)
2. Higher Revenue Requirement from Change in Gross Margin due to lower Use Rates (RSAM Classes)	26.9
3. All Others (include Rounding)	<u>2.1</u>
	<u>\$ 24.7</u>

### 1. Change in Gross Margin due to Customer Growth

	Change in Avg. Customers		2008 Approved Margin / Customer (\$000s)			Margin Impact (\$000s)
Rate 1 - Residential	3,223.4	x	0.4	=	\$	1,287.8
Rate 2 - Small Commercial	893.1	x	1.0	=		918.2
Rate 3 - Large Commercial	203.8	x	8.4	=		1,704.4
Rate 23 - Commercial Transportation	<u>35.0</u>	x	12.1	=		<u>423.1</u>
	<u>4,355.3</u>				\$	<u>4,333.4</u>

### 2. Change in Gross Margin due to lower Use Rates

	Change in Use Rate (GJs)		2008 Average Customers		2008 Approved Margin \$ / GJ (\$000s)			Margin Impact (\$000s)
Rate 1 - Residential	(5.1)	x	748,595	x	0.004	=	\$	(15,853.6)
Rate 2 - Small Commercial	(18.9)	x	74,407	x	0.003	=		(4,481.6)
Rate 3 - Large Commercial	(454.1)	x	4,505	x	0.002	=		(4,987.7)
Rate 23 - Commercial Transportation	<u>(490.0)</u>	x	<u>1,346</u>	x	0.002	=		<u>(1,622.2)</u>
	<u>(968.1)</u>		<u>828,853</u>				\$	<u>(26,945.0)</u>

### 3. All Others

	Volume Impact (TJs)			Margin Impact (\$000s)
Rate 22 - Large Volume Transportation	(2,914)	=	\$	(681.0)
Rate 25 - General Firm Transportation	(1,893)	=		(641.0)
Rate 27 - General Interruptible Transportation	(646)	=		(607.0)
Others & Rounding Differences	<u>(549)</u>	=		<u>(201.0)</u>
	<u>(6,002)</u>			<u>(2,130.0)</u>

1.2 Please segment the \$ - 4.6 million Customer Growth and Use Rate impact into Customer Growth and Use Rate components.

## **Response:**

The description of the \$4.6 million was incorrect. The correct description should be Change in Gross Margin due to Customer Growth. Please refer to the response to BCUC IR 1.1.1 above.



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## 2.0 Reference: Exhibit B-1, Section A-1, 2008 Revenue Requirement, p. 4

2.1 Please provide a breakdown of the \$14.4 million of Earnings Sharing in the same format as the 2007 Annual Review for 2008 Revenue Requirements Application Response to BCUC IR 2.1.

### Response:

A breakdown of the \$14.4 million of Earnings Sharing is as follows:

	(\$ Millions)
2007 Actual Earnings Sharing	\$ 15.0
Less: 2007 Projected Earnings Sharing	12.6
2007 Earnings Sharing True-Up	2.4
2008 Projected Earnings Sharing	12.0
Total Earnings Sharing	<u>\$ 14.4</u>

2.2 Please show the calculation and explain how the forecast interest rate used in the 2009 Revenue Requirement was determined. Provide all references.

### Response:

As per Amended Section A Tab1 Page 9, interest expense in the 2009 Revenue Requirements is \$821,000 lower than that of 2008 Approved with respect to a Rate Base that has increased by \$36.494 million over 2008 Approved. The calculation of this variance is as follows:

Particulars	Principal	Old Rates	New Rates	Change
2008 Unfunded Debt	254,023	5.000%	4.250%	(1,906)
2008 Long Term Debt	1,373,881	7.211%	6.959%	(3,457)
Unfunded Debt refinanced by Long Term Debt	108,818	4.250%	6.959%	2,948
Increase in Unfunded Debt	2,117	-	4.250%	90
Increase in Long Term Debt	21,600	-	6.959%	1,504

The 2009 forecast unfunded interest rate used in the Revenue Requirement is based upon the Royal Bank of Canada forecast dated August 2008 for the overnight rate, the TD Bank forecast dated August 2008 for prime rate, and the CIBC World Markets forecast dated August 2008 for the overnight rate. Based on this information we used a prime rate forecast for 2009 of 5.50%. We assumed the Company's short term debt would on average be approximately 1.25% lower than prime, therefore, the 2009 short term interest rate was forecast to be 4.25%.

The forecast interest rate for 2009 new long-term debt issuance was based on the Royal Bank of Canada forecast dated August 2008, the TD Bank forecast dated August 2008, and the CIBC World Markets forecast dated August 2008 for the 10-year Government of



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Canada bond yield. Based on this information, we used a forecast of 4.25%. We assumed the Company's new issue credit spread would be 1.75%, therefore, the interest rate for new debt issuance was forecast to be 6%.

The following issues will mature in 2009:

- Debenture - Series E – June 7, 2009 \$59.9 million

In the event there is a variance between forecast and actual with respect to the interest rates, long-term debt principal, or timing of debt issue, the variance will be recorded in an interest deferral account and recovered from or returned to customers in future periods.

2.3 Please provide an updated interest rate forecast as of October 15, 2008.

**Response:**

We have reviewed recent forecasts available as at October 15, 2008. The Royal Bank of Canada forecast dated October 2008 for the overnight rate, the TD Bank forecast dated September 2008 for prime rate, the CIBC World Markets forecast dated September 2008 for the prime rate, and the Conference Board of Canada forecast dated September 2008 for the prime rate. All interest rate forecasts are included in Attachment 2.3.

There has been considerable volatility in the financial markets the last number of weeks, affecting primarily short term rates. However, based on these more recent forecasts, we believe it reasonable to maintain our forecast of prime rate for 2009 at 5.50%. We have noticed a decrease in the differential between the Company's short term borrowing cost and prime rate, due to the fact that credit spreads for borrowers have widened. It is unclear if this decrease is temporary. We continue to forecast that the Company will borrow at approximately 1.25% less than prime rate, and maintain our forecast of short term debt at 4.25%.

With respect to the forecast for interest rates for 2009 issuance of long-term debt, we reviewed the Royal Bank of Canada forecast dated October 2008, TD Bank forecast dated September 2008 and the CIBC World Markets forecast dated September 2008 for the 10-year Government of Canada bond yield. Based on these forecasts we have maintained our forecast for the 10-year bond yield at 4.25%. Over the last number of weeks, the credit spreads for the Company for longer term debt have doubled from those seen earlier in 2008, and are currently well in excess of the forecast credit spread. However, it is unclear how much of this widening is a short-term reaction to the extreme market turmoil of recent weeks, or a more permanent shift. Therefore, we believe it reasonable to maintain the credit spread at 1.75%, and the forecast interest rate for 2009 new debt issuance at 6.00%.



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We believe our approach to the interest rate forecast is reasonable as the extreme volatility makes forecasting of rates uncertain and that, as noted in the response to BCUC IR 1.2.2, the variance between forecast and actual interest rates will be recorded in a deferral account and either recovered from or returned to customers.

2.4 Please explain the change in Pension and Insurance Forecast of \$1.1 million.

**Response:**

The change of \$1.1 million accounts for the difference between 2008 approved and 2009 forecast Pension and Insurance Variance, as presented in Section A-5, page 3, line 14, column 11 less column 14.

The Pension and Insurance Variance represents the difference between formula and forecast Cost of Service Based Pension and Insurance expense. The \$1.1 million can be calculated as a net increase of \$1.2 million in the actuarial pension forecast between 2008 and 2009 plus a net increase of \$0.1 million in the forecast insurance expense; offset by a \$0.2 million increase in the adjusted formula base between 2008 and 2009.

2.4.1 Please provide supporting calculations for the 2009 forecasted pension and insurance amounts of \$2.310 million and \$4.725 million respectively under the Cost of Service base method. (Section A-5, p. 3)

**Response:**

Attachment 2.4.1 summarizes the components of the estimated pension expense for 2009. The estimate was based on a discount rate of 5.5%, reflecting our estimate of the discount rate anticipated at December 31, 2008. Attachment 2.4.1 contains information provided by both actuaries on the pension plans.

The forecast 2009 insurance expense of \$4.725 million has been calculated using 2008 projected insurance expense grown by a factor of 5%. This factor accounts for inflation as well as increased property value replacement costs related to labour and materials.

2.4.2 Please file any documentation in support of the 2009 Forecast of \$2.310 million pension expense (Section A-5, p. 3, line 7)?

**Response:**

Please refer to the response to BCUC IR 1.2.4.1 above.



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2.4.3 Please provide supporting calculations for the current and non-current pension expenses (Section A-5, p. 3).

**Response:**

Please refer to the response to BCUC IR 1.2.4.1 above.

2.4.4 Why is there an Insurance variance of \$0.542 million in 2007 and \$0.562 million in 2008 (Section A-5, p. 3)?

**Response:**

The variance represents the difference between Formula and Cost of Service Based Insurance expense. A variance exists because the Cost of Service based forecast is higher than the insurance expense derived by the Formula.



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**3.0 Reference: Exhibit B-1, Section A-3, Plant Additions, pp. 3, 9 and 9.1**

"The software tax savings are based on the software plant additions arising from the base capital additions formula. The other CIAOC consisting of main extensions, excess service line charges, billable alterations, meter & regulator equipment work, and other CIAOC have been calculated based on the PBR Formula. CIAOC is subject to the same adjustment and true-up process as base capital additions. Therefore, the CIAOC additions for 2009 have been adjusted based on projected 2008 customer counts."

3.1 Please show the calculation of the Projected 2008 and Forecast 2009 for Software Tax Savings and Other CIAOC additions in Exhibit B-1, Section A-3, pages 8 – 8.1. Use the same format as the Capital Expenditure schedule on Section A-3, page 4.

**Response:**

The Forecast 2009 for Software Tax Savings and Other CIAOC additions has been updated to reflect the revised customer addition and CPI forecasts as discussed in the Amended Application dated November 3, 2008. The calculation below shows the revised figures.



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**TERASEN GAS INC.**

SOFTWARE TAX SAVINGS, SERVICE LINE INSTALLATION FEE AND OTHER  
FOR THE YEARS ENDING DECEMBER 31, 2008 and 2009

Line. No.	Particulars	Projected 2008	Forecast 2009
	(1)	(2)	(1)
1	Forecast CPI (BC)	2.00%	2.10%
2	Adjustment Factor	1.32%	1.39%
3			
4	CPI - Adjustment Factor	100.68%	100.71%
5			
6	<b><u>SOFTWARE TAX SAVINGS</u></b>		
7			
8	Non-Infrastructure Software Expenditures Per Customer	\$3.64	\$3.70
9	Average Number of Customers	825,957	834,283
10	Total Non-Infrastructure Software Additions Current Year	<u>\$3,006</u>	<u>\$3,090</u>
11			
12	Two Year Average Non-Infrastructure Software Additions	\$2,979	\$3,048
13	Tax Rate	31%	30%
14			
15	<b>Total Non-Infrastructure Additions to Software Tax Savings (\$000)</b>	<b><u>\$923</u></b>	<b><u>\$914</u></b>
16			
17	Infrastructure Software Expenditures Per Customer	\$16.42	\$9.10
18	Average Number of Customers	825,957	834,283
19	Total Infrastructure Software Additions Current Year	<u>13,562</u>	<u>7,590</u>
20			
21	Two Year Average Infrastructure Software Additions	\$10,412	\$10,576
22	Tax Rate	<u>31.00%</u>	<u>30.00%</u>
23			
24	<b>Total Infrastructure Additions to Software Tax Savings (\$000)</b>	<b><u>\$3,228</u></b>	<b><u>\$3,173</u></b>
25			
26	<b>Total Additions to Software Tax Savings (\$000)</b>	<b><u>\$4,151</u></b>	<b><u>\$4,087</u></b>
27			
28			
29	<b><u>SERVICE LINE INSTALLATION FEE</u></b>		
30			
31	Service Line Installation Fee Per Customer Addition	\$215.00	\$0.00
32	Customer Addition	9,136	6,949
33			
34	<b>Total Service Line Installation Fee Additions (\$000)</b>	<b><u>\$1,964</u></b>	<b><u>\$0</u></b>
35			
36			
37	<b><u>OTHER</u></b>		
38	Excess Service Line Changes Per Customer Addition	\$78.13	\$78.69
39	Main Extension Per Customer Addition	\$29.82	\$30.03
40	Customer Addition	<u>9,136</u>	<u>6,949</u>
41		<u>\$986</u>	<u>\$755</u>
42			
43	Billable Alterations Per Total Customer	\$0.74	\$0.75
44	Other Per Total Customer	\$1.38	\$1.39
45	Total Customer	<u>831,734</u>	<u>838,683</u>
46		<u>\$1,767</u>	<u>\$1,795</u>
47			
48	<b>Total Other Additions (\$000)</b>	<b><u>\$2,753</u></b>	<b><u>\$2,550</u></b>



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#### 4.0 Reference: Exhibit B-1, Section A-3, p. 5 Forecast 2008 Base Capital Additions

4.1 Please show the calculation of the Forecast F2009 AFUDC of \$0.201 million.

##### **Response:**

AFUDC is calculated on all projects greater than \$50,000 and over 3 months in duration. As a result not all spending has AFUDC calculated on it. Below is the weighted average of AFUDC calculated per dollar spent. The capital additions and AFUDC amounts have been adjusted to reflect the revised 2009 customer additions and the revised CPI forecast as discussed in the Amended Application dated November 3, 2008.

BCUC Account	Capital Additions	AFUDC	Weighted Average
Intangible Plant	\$0	\$0	0.0%
Manufactured Gas/Local Storage	\$457	\$4	0.8%
Transmission Plant	\$8,965	\$41	0.5%
Distribution Plant	\$59,604	\$93	0.2%
General Plant	\$21,105	\$58	0.3%
Total Base Capital Expenditures	\$90,131	\$196	0.2%



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**5.0 Reference: Exhibit B-1, Section A-3, 2008 Approved Utility Rate Base, p. 7**

5.1 Please explain the \$6.415 million decrease in Work in Progress, No AFUDC from 2008 Approved to 2009 Revised Rates.

**Response:**

The \$6.415 million **increase** (it is not a decrease, as indicated in the question) in Work in Progress, No AFUDC between 2008 Approved and 2009 Forecast represents the reclassification of Capital Spares Inventory from the Inventory account effective 2009, as approved by the BCUC in Order No. G-153-07. This is in compliance with CICA Handbook changes.

Given that Plant Additions in Service and Work in Progress, No AFUDC are both added to Rate Base via a mid year calculation, the reclassification has no impact on Rate Base or Rates.



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## 6.0 Reference: Exhibit B-1, Section A-3, Fixed Asset Retirements

6.1 Please provide details of the fixed asset retirements for 2008 and 2009, what is the net book value of these assets, what proceeds were received, the amount of gain or loss recorded and reasons for replacing these assets.

### Response:

The 2009 amounts shown in the tables below have been updated to reflect the revised customer additions and CPI forecasts, as discussed in the Amended Application dated November 3, 2008.

### Transmission and Distribution Plant

For Transmission and Distribution Plant, TGI calculates retirements based on a percentage of formula additions. The percentage rate used is based on historical practice. In accordance with group accounting procedures, the net book value is assumed to be zero without gain, loss or proceeds.

Particulars	2008 Additions	2008 Retirements	2008 Rate	2009 Additions	2009 Retirements	2009 Rate
<b>TRANSMISSION PLANT</b>						
465-00 Mains	\$3,592	(\$180)	5%	\$3,756	(\$188)	5%
<b>DISTRIBUTION PLANT</b>						
473-00 Services	21,000	(3,150)	15%	17,708	(2,656)	15%
474-00 House Regulators & Meter Installatio	10,176	(509)	5%	10,211	(511)	5%
475-00 Mains	33,512	(3,351)	10%	32,614	(3,261)	10%
477-00 Measuring & Regulating Equipment	11,102	(555)	5%	11,604	(580)	5%
477-00 Telemetry	162	(8)	5%	169	(9)	5%
478-00 Meters	11,500	(575)	5%	11,250	(563)	5%
<b>Total Trans. and Dist. Retirements</b>		<u>(\$8,328)</u>			<u>(\$7,767)</u>	

### General Plant & Equipment

General Plant & Equipment except Land is retired when the net book value of the asset reaches zero. No gain, loss or proceeds is forecast.



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	2008	2008	2008	2009	2009	2009
	Cost	Accum. Depn.	Net Book Value	Cost	Accum. Depn.	Net Book Value
<b>GENERAL PLANT &amp; EQUIPMENT</b>						
483-00 Office Furniture and Equipment						
- Furniture & Equipment	\$1,264	(\$1,264)	\$0	\$90	(\$90)	\$0
- Computer Hardware	755	(755)	0	8,956	(8,956)	0
- Computer Software (Infrastructure)	14,215	(14,215)	0	8,983	(8,983)	0
- Computer Software (Non-Infrastructure)	4,564	(4,564)	0	1,473	(1,473)	0
486-00 Small Tools & Equipment	2,346	(2,346)	0	327	(327)	0
- Telephone	45	(45)	0	10	(10)	0
- Radio	419	(419)	0	529	(529)	0
489-00 Other General Equipment	-	-	0	-	-	0
<b>Total General Plant Retirements</b>	<b>\$23,609</b>	<b>(\$23,609)</b>	<b>\$0</b>	<b>\$20,368</b>	<b>(\$20,368)</b>	<b>\$0</b>



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**7.0 Reference: Exhibit B-1, Section A-3, Rate Base, p. 7**

Section A-3, page 6, line 32 includes a LILO Benefit of \$1.980 million for Approved 2008 and \$1.814 million for 2009.

7.1 Why is the benefit lower in 2009? Show the computations for 2009.

**Response:**

The LILO Benefit on Section A-3, page 6, line 32 captures the benefit to customers of Terasen Gas LILO Agreements. These benefits are amortized on a straight line basis over the life of each LILO. As there have been no new LILO Agreements, and thus no additions to LILO Benefits, the annual decline in this amount represents the annual amortization.

**TERASEN GAS INC.  
RATE BASE REDUCTIONS FOR LILO CUSTOMER BENEFITS  
(\$000'S)**

	<b>2008</b>	<b>2009</b>
Opening balance	2,063	1,897
Additions	-	-
Annual amortization	166	166
Closing balance	1,897	1,731
Mid year balance	1,980	1,814



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**8.0 Reference: Exhibit B-1, Section A-3, Rate Base, pp. 7 to 7.1**

8.1 Please file a comparison with differences for the Forecast 2008 Additions and the Actual 2008 Additions shown on pages 7 and 7.1.

**Response:**

The 2008 Approved Additions from the 2007 Annual Review are based on 2008 Forecast customer additions of 11,797 while the 2008 Projected additions from pages 7 and 7.1 are based on the 2008 Projected customer additions of 9,136.



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TERASEN GAS INC.  
GAS PLANT IN SERVICE CONTINUITY SCHEDULE  
FOR THE YEAR ENDING DECEMBER 31, 2008  
(\$000s)

Line No.		2008 Approved Total Additions (including CPCN) (1)	2008 Projected Total Additions (including CPCN) (2)	Difference (1)-(2)
1	<b>INTANGIBLE PLANT</b>			
	117-00 Utility Plant Acquisition Adjustment	\$ -	\$ -	\$ -
	175-00 Unamortized Conversion Expense	0	0	-
	175-00 Unamortized Conversion Expense - Squamish	0	0	-
	178-00 Organization Expense	0	0	-
	179-01 Other Deferred Charges	0	0	-
2	401-00 Franchise and Consents	0	0	-
3	402-00 Utility Plant Acquisition Adjustment	0	0	-
4	402-00 Other Intangible Plant	0	0	-
5	TOTAL INTANGIBLE PLANT	\$ -	\$ -	-
6				
7	<b>MANUFACTURED GAS / LOCAL STORAGE</b>			
8	430 Manufact'd Gas - Land	\$ -	\$ -	\$ -
9	432 Manufact'd Gas - Struct. & Improvements	0	0	-
10	433 Manufact'd Gas - Equipment	0	0	-
11	434 Manufact'd Gas - Gas Holders	0	0	-
12	436 Manufact'd Gas - Compressor Equipment	0	0	-
13	437 Manufact'd Gas - Measuring & Regulating Equipment	0	0	-
14	440/441 Land in Fee Simple and Land Rights	0	0	-
15	442 Structures & Improvements	0	0	-
16	443 Gas Holders - Storage	657	654	3
17	446 Compressor Equipment	0	0	-
18	447 Measuring & Regulating Equipment	0	0	-
19	448 Purification Equipment	0	0	-
20	449 Local Storage Equipment	0	0	-
21	TOTAL MANUFACTURED GAS / LOCAL STORAGE	\$ 657	\$ 654	3
22				
23	<b>TRANSMISSION PLANT</b>			
24	460-00 Land in Fee Simple	\$ -	\$ -	\$ -
25	461-00 Land Rights	1,387	1,338	49
26	461-10 Land Rights - Byron Creek	0	-	-
27	462-00 Compressor Structures	449	452	(3)
28	463-00 Measuring Structures	0	-	-
29	464-00 Other Structures & Improvements	0	-	-
30	465-00 Mains	3588	4,266	(678)
31	465-10 Mains - Byron Creek	0	-	-
32	466-00 Compressor Equipment	54	54	-
33	467-00 Measuring & Regulating Equipment	5966	5,962	4
34	467-10 Telemetry	0	-	-
35	467-20 Measuring & Regulating Equipment - Byron Creek	0	-	-
36	468-00 Communication Structures & Equipment	765	782	(17)
37	469-00 Other Transmission Equipment	0	0	-
38	TOTAL TRANSMISSION PLANT	\$ 12,209	\$ 12,854	(645)



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TERASEN GAS INC.  
GAS PLANT IN SERVICE CONTINUITY SCHEDULE  
FOR THE YEAR ENDING DECEMBER 31, 2008  
(\$000s)

Line No.	Particulars	2008 Approved Total Additions (including CPCN)	2008 Projected Total Additions (including CPCN)	Difference
1	<b>DISTRIBUTION PLANT</b>			
2	470-00 Land in Fee Simple	\$ -	\$ -	\$ -
3	471-00 Land Rights	-	-	-
4	471-10 Land Rights - Byron Creek	-	-	-
5	472-00 Structures & Improvements	412	419	(7)
6	472-10 Structures & Improvements - Byron Creek	-	-	-
7	473-00 Services	24,713	21,000	3,713
8	474-00 House Regulators & Meter Installations	10,375	10,176	199
9	475-00 Mains	45,480	41,077	4,403
10	476-00 Compressor Equipment	-	-	-
11	477-00 Measuring & Regulating Equipment	11,105	11,102	3
12	477-00 Telemetry	162	162	(0)
13	477-10 Measuring & Regulating Equipment - Byron Creek	-	-	-
14	478-00 Meters	12,073	11,500	573
15	479-00 Other Distribution Equipment	-	-	-
16	TOTAL DISTRIBUTION PLANT	\$ 104,320	\$ 95,435	8,885
17				
18	<b>GENERAL PLANT &amp; EQUIPMENT</b>			
19	480-00 Land in Fee Simple	\$ 22	\$ 22	-\$ 0
20	481-00 Land Rights	-	-	-
21	482-00 Structures & Improvements	-	-	-
22	- Frame Buildings	-	-	-
23	- Masonry Buildings	-	-	-
24	- Leasehold Improvement	679	665	14
25	483-00 Office Furniture and Equipment	-	-	-
26	- Furniture & Equipment	511	508	3
27	- Computer Hardware	7,022	6,935	88
28	- Computer Software (Infrastructure)	6,598	6,424	174
29	- Computer Software (Non-Infrastructure)	2,607	2,600	8
30	484-00 Transportation Equipment	52	51	1
31	485-00 Heavy Work Equipment	-	-	-
32	486-00 Small Tools & Equipment	2,333	2,322	11
33	487-00 Equipment on Customer's Premises	-	-	-
34	- VRA Compressor Installation Costs	-	-	-
35	488-00 Communications Equipment	-	-	-
36	- Telephone	581	579	2
37	- Radio	570	567	3
38	489-00 Other General Equipment	-	-	-
39	TOTAL GENERAL PLANT	\$ 20,975	\$ 20,673	302
40				
41	<b>UNCLASSIFIED PLANT</b>			
42	499 Plant Suspense	\$ -	\$ -	-
43	TOTAL UNCLASSIFIED PLANT	\$ -	\$ -	-
44				
45	<b>TOTAL CAPITAL</b>	\$ 138,161	\$ 129,616	8,545



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8.2 On page 7.1 please explain the 2008 retirements for Services (line 7), Mains (line 9), and Computer Hardware/Software (lines 27 to 29).

**Response:**

**Services and Mains**

<b><u>BCUC Account</u></b>	<b><u>Additions</u></b>	<b><u>Retirement</u></b>	<b><u>Rate (note1)</u></b>
Services	\$21,000	\$3,150	15%
Mains	\$33,512	\$3,351	10%

Note: TGI calculates retirements based on a percentage of additions. The percentage rate used is based on historical practice.

**Computer Hardware**

Hardware is retired when the NBV of the asset reaches zero. \$755k will reach a NBV of zero at December 31, 2008. These assets went into service on Jan 1, 2004.

**Computer Software (Infrastructure and Non-Infrastructure)**

Software is retired when the NBV of the asset reaches zero. Software Infrastructure of \$14,215 will reach a NBV of zero at December 31, 2008. These assets went into service on January 1, 2001. Software Non-Infrastructure of \$4,564 will reach a NBV of zero at December 31, 2008. These assets went into service on January 1, 2004.

8.3 Please provide a breakdown of the 2008 retired assets for Computer Hardware / Software and the associated accumulated depreciation.

**Response:**

Computer Hardware / Software are retired when the NBV of the assets reach zero. The historical cost of the asset is equal to the associated accumulated depreciation.

The following Computer Hardware assets comprised the 2008 retirement amounting to \$755,000.

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<u>Particulars</u>	<u>Cost</u>	<u>Accum. Depn.</u>
SAP Upgrade	\$353	(\$353)
WMS (Work Management System)/PM (Project		
Management) - Computer Hardware	91	(91)
DCRS Computer Hardware	82	(82)
Fraser Valley Compressor Project	36	(36)
Other Computer Hardware	193	(193)
<b>Total Computer Hardware</b>	<b>\$755</b>	<b>(\$755)</b>

The following Computer Software (Infrastructure and Non-Infrastructure) assets comprised the 2008 Computer Software retirement total \$18,779.

<u>Particulars</u>	<u>Cost</u>	<u>Accum. Depn.</u>
Measurement Management System	\$5,254	(\$5,254)
Integrated Resource Management	3,055	(3,055)
AM/FM Software	2,810	(2,810)
SAP 4.5 Upgrade/Enhancements	2,774	(2,774)
Coastal Map Upgrade	213	(213)
Corrosion Management System	42	(42)
SCP Software	39	(39)
Other	28	(28)
<b>Sub-total Computer Software Infrastructure</b>	<b>\$14,215</b>	<b>(\$14,215)</b>
Information, Computer & Technology Software	\$4,564	(\$4,564)
<b>Sub-total Computer Software Non-Infrastructure</b>	<b>\$4,564</b>	<b>(\$4,564)</b>
<b>Total Computer Software</b>	<b>\$18,779</b>	<b>(\$18,779)</b>



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**9.0 Reference: Exhibit B-1, Section A-3, p. 10, Large Corporations Tax**

9.1 Please confirm when the Large Corporations Tax was eliminated.

**Response:**

The Large Corporations Tax ("LCT") was eliminated effective January 1, 2006.

9.2 Please explain why the "surtax credit was not available to TGI in preparing its 2007 tax returns."

**Response:**

In 2007 the corporate surtax was payable at a rate of 1.12%. Any surtax payable gave rise to a surtax credit to the extent that the surtax exceeded the LCT payable for the year. This surtax credit could be carried back to reduce LCT paid in prior years. Although there was no LCT payable in 2007, for purposes of the surtax credit calculation, LCT was calculated at a notional rate of 0.225% of taxable capital. The notional LCT calculated for 2007 was greater than the surtax, and thereby reduced the surtax credit to zero.

9.3 If TGI had prepared a 2007 tax return for its utility operations on a stand alone basis would the surtax credit have been available for the stand alone utility operations in 2007?

**Response:**

No, there would have been no surtax credit available because the notional LCT in the utility operations was greater than the surtax payable.

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## 10.0 Reference: None

10.1 Please identify the Terasen Gas Inc. employees that have an office at 1111 West Georgia Street, Vancouver, BC.

### **Response:**

Randy Jespersen, Scott Thomson, Bob Samels, Dwain Bell, Doug Stout, Jan Marston, and Cynthia Des Brisay together with administrative staff of 1.5 Full-Time Equivalent ("FTE") that support these individuals.

10.2 Please explain if the employees identified in the response to the previous question also have an office at 16705 Fraser Highway, Surrey, BC.

### **Response:**

The employees identified in the response to BCUC IR 1.10.1 also have space allocated at 16705 Fraser Hwy, Surrey, BC.

10.3 Please identify the annual rental costs that are incurred, if any, to have office space for Terasen Gas Inc. at 1111 West Georgia Street.

### **Response:**

The expected annual cost to TGI is approximately \$186,000. TGI does utilize space downtown to attend or host meetings with other businesses and third parties whose businesses are located in the downtown area. Some of those third parties include the Companies external auditors, external legal counsel, financial institutions, investment bankers and other services. Access to the downtown space provides efficiencies and optimal time utilization for TGI employees by reducing and avoiding travel time during business hours when those TGI employees are required to participate in meetings downtown.



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## 11.0 Reference: Exhibit B-1, Section A-3, Rate Base, p. 14 -14.1

11.1 Please provide a detail breakdown of net additions of \$1.789 million in F2008 and \$13.694 million in F2009 in the Energy Efficient & Conservation EEC deferral account. (line 10, p.14)

### Response:

For 2008, the \$1.789 million represents the 2008 ending deferral account balance and is calculated as follows:

2008 Opening Balance	\$1.526M
Gross Additions:	\$1.500M (Approved per Order G-51-03)
Taxes:	(\$0.465M)
Amortization:	<u>(\$0.772M)</u>
2008 Ending Balance:	\$1.789M

For 2009, the \$13.694 million net-of-tax addition is calculated as \$19.564 million less taxes of \$5.869 million.

The table below shows the gross spend for TGI for each year from 2008-2010 per the Energy Efficiency and Conservation Application.

Spend by Program Area (\$000's)	2008	2009	2010	Total
Residential Energy Efficiency	\$2,906	\$3,224	\$2,422	\$8,552
Commercial Energy Efficiency	\$4,535	\$6,283	\$8,774	\$19,592
Residential Fuel Switching	\$359	\$409	\$564	\$1,332
Conservation Education and Outreach	\$4,196	\$3,436	\$3,436	\$11,068
Joint Initiatives	\$800	\$800	\$800	\$2,400
Trade Relations	\$400	\$400	\$400	\$1,200
2009 Conservation Potential Review	\$0	\$400	\$0	\$400
Innovative Technologies, NGV and Measurement	\$800	\$800	\$800	\$2,400
Total	\$13,996	\$15,752	\$17,196	\$46,944

Of the \$13.996 million shown in 2008, \$10.872 million represents incremental costs while \$3.124 million (\$1.624 million O&M and \$1.5 million deferral) represents previously approved DSM spending. Since approval for the incremental costs had not been received at the time of filing, the incremental costs anticipated to be spent in 2008 have been reallocated equally to 2009 and 2010.

Of the \$15.752 million shown in 2009, \$1.624 million is O&M while \$14.128 million is deferral.

In summary, the calculation of the \$19,564 million for 2009 is \$14.128 million deferral for 2009 plus 50% of \$10.872 million incremental deferral from 2008.



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11.2 Please show the derivation of the 2008 and 2009 gross additions for the SCP Net Mitigation Revenues (line 10, p. 14.1).

**Response:**

The additions to the SCP Net Mitigation deferral account represent any forecasted net mitigation revenue in excess of \$1.0 million.

2008:

Net Mitigation Revenue	1,909
Allowed	<u>1,000</u>
Gross Additions	909

2009:

Net Mitigation Revenue	1,955
Allowed	<u>1,000</u>
Gross Additions	955

**12.0 Reference: Exhibit B-1. Section A-4, Gas Sales and Transportation Volumes, pp. 4**

12.1 Please provide in a table and graph format since 2004 to present, the forecast number of additions as compared to the actual additions for the following:

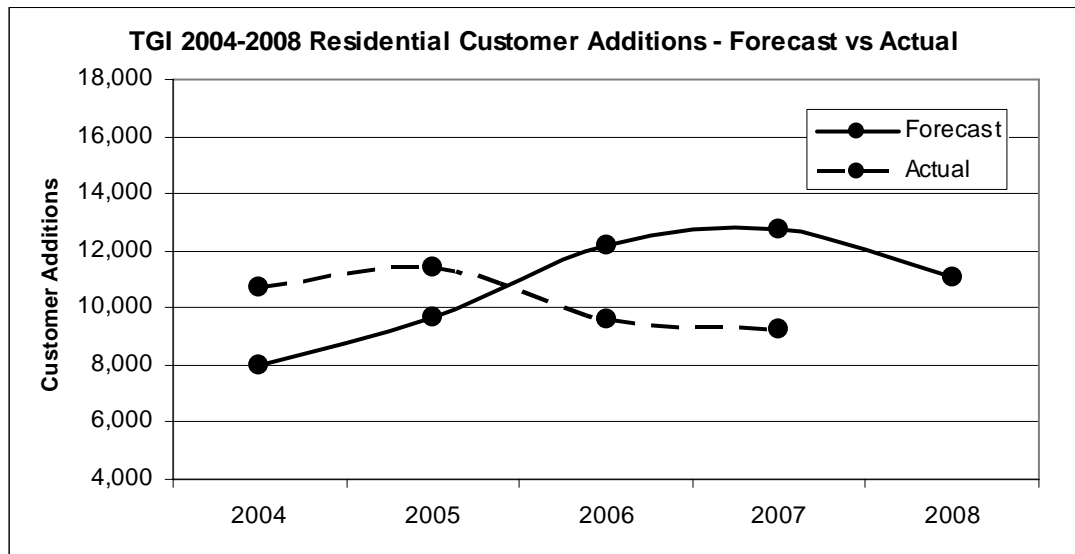
12.1.1 Residential customers

**Response:**

Following are the forecast and actual residential customer additions, from 2004 through 2008:

**Residential Customer Additions**

	2004	2005	2006	2007	2008
Forecast	8,000	9,652	12,204	12,764	11,098
Actual	10,716	11,427	9,595	9,277	N/A



12.1.2 Commercial customers

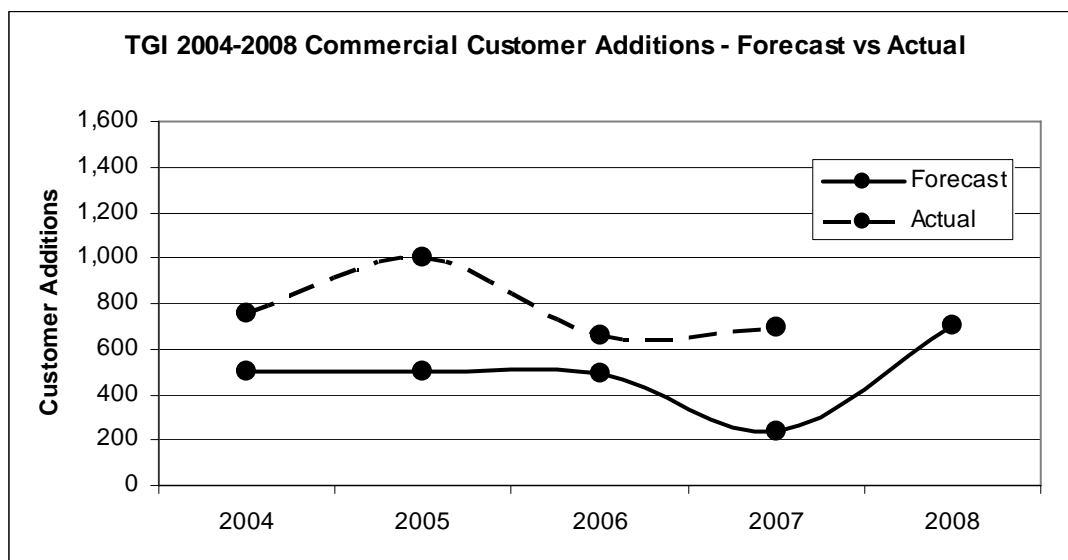
**Response:**

Following are the forecast and actual commercial customer additions, from 2004 through 2008:

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### **Commercial Customer Additions**

	2004	2005	2006	2007	2008
Forecast	500	501	489	235	704
Actual	756	1,002	656	694	N/A



### 12.1.3 Industrial and Transportation customers

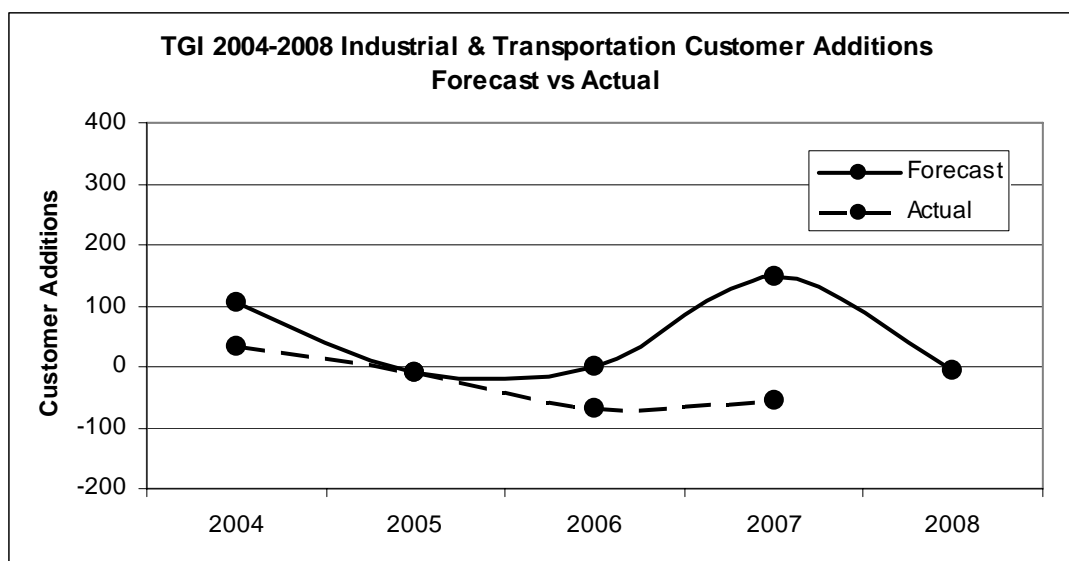
#### **Response:**

Following are the forecast and actual Industrial & Transportation customer additions, from 2004 through 2008:

#### **Industrial & Transportation Customer Additions**

	2004	2005	2006	2007	2008
Forecast	104	-9	-1	146	-5
Actual	32	-9	-70	-56	N/A

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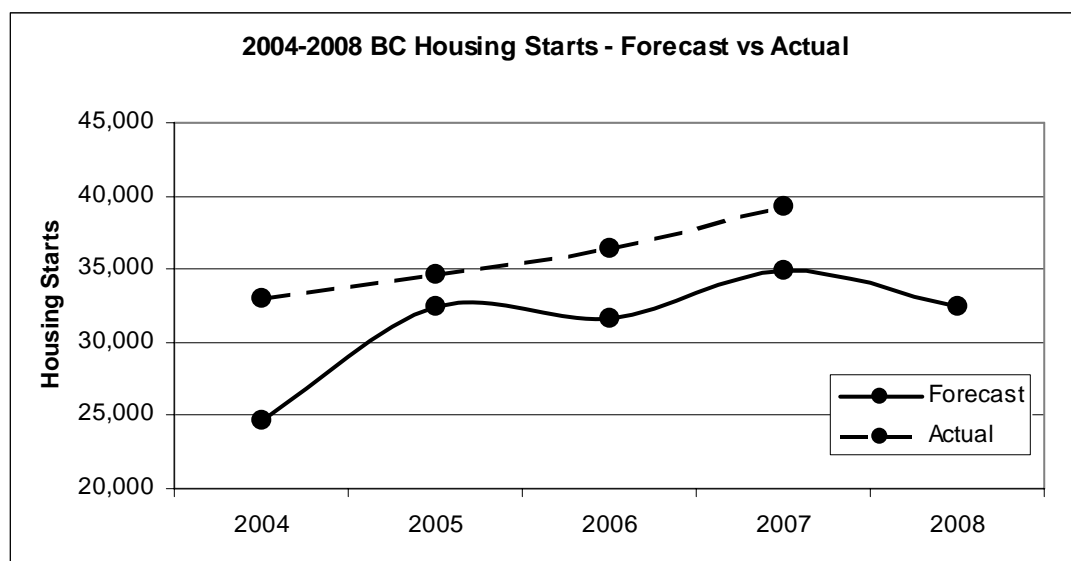
#### 12.1.4 Housing Starts

##### Response:

##### Housing Starts

	2004	2005	2006	2007	2008
Forecast	24,600	32,400	31,600	34,900	32,500
Actual	32,925	34,667	36,443	39,195	N/A

Forecast values are from the third quarter report of the year prior to the forecast year. Actual values also from CMHC.



12.2 Please provide in a table and graph format since 2004 to present, the forecast number of Year-Ending Customers as compared to actual Year-Ending Customers.

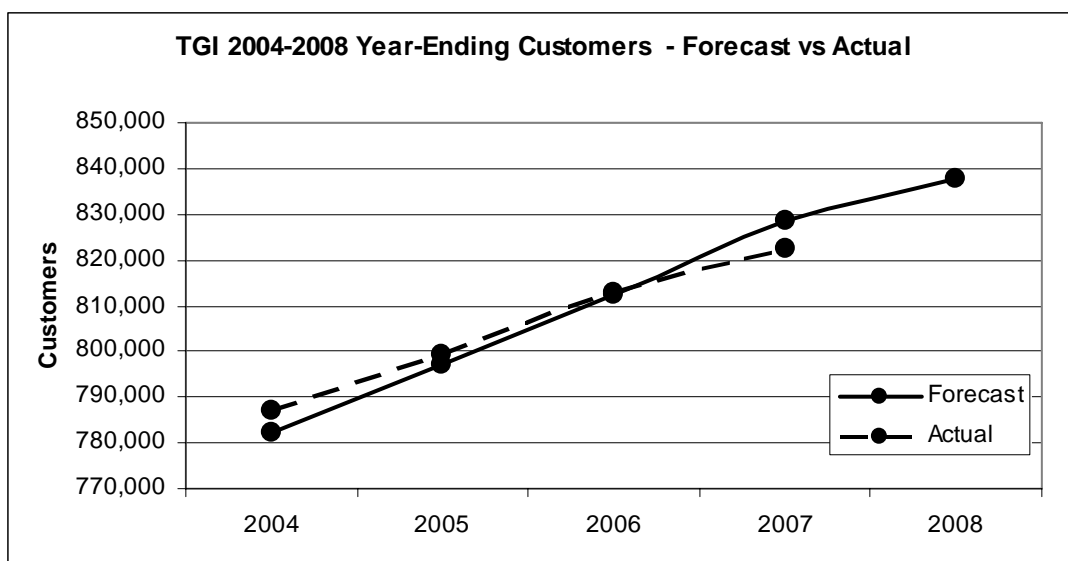
**Response:**

Following are the forecast and actual TGI Year-Ending Customers from 2004-2008:

**Year-Ending Customers**

	2004	2005	2006	2007	2008
Forecast	782,258	797,072	812,388	828,700	837,609
Actual	786,958	799,378	812,683	822,598	N/A

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**13.0 Reference: Exhibit B-1, Section A-4, Gas Sales and Transportation Volumes, pp. 7**

13.1 Please show more precisely how the 2009 forecast energy in PJ for the various customer classes shown in the Table on Page 7 was derived.

**Response:**

For the Commercial Rate classes, the 2009 energy forecast was derived by first projecting the 2008 energy consumption. This was estimated by extrapolating the ratio of the 2008 normalized actual use per customer rates available at the time of the forecast to those over the same period in 2007. The average growth rate experienced over the prior three years was then applied to the 2008 projection to estimate the 2009 use per customer rates. The total number of customers in each year was applied to the estimated use per customer rates, resulting in the energy forecast.

Example: Lower Mainland Rate 2 Customers

Normalized Actual Annual Use Rate (2006) = 325.0 GJ/Customer

Normalized Actual Annual Use Rate (2007) = 327.4 GJ/Customer

Normalized Actual Use Rate (Jan-Apr) 2007 = 163.8 GJ/Customer

Normalized Actual Use Rate (Jan-Apr) 2008 = 160.0 GJ/Customer

This implies a decline of 2.3% from 2007 to 2008. Extrapolating this to year-end results in an estimated 2008 use per customer rate of  $160/163 \times 327.4 = 319.8$  GJ/Customer.

This further implies that the average growth rate from 2006 to 2008 is a 0.8% decline. Applying this growth rate to the 2008 projection results in the 2009 forecast use per customer rate of  $319.8 \times (1 + -0.8\%) = 317.3$  GJ/Customer. With 52,868 customers forecast by the end of 2009, the result is a forecast energy demand of 16.7 PJ's for 2009.

For Residential customers, the same methodology described above was followed to project the 2008 use per customer rates. For 2009, rather than applying the average growth rate over the prior three years, a 1% decline was assumed.

For the Rate Schedule 4 (seasonal) and Rate Schedule 6 (NGV) rate classes, the energy demand was based upon the observed change in consumption from 2008 year-to-date data and the same period 2007, with that ratio being applied to the 2007 year-ending consumption. For Rate Schedule 6 customers, market information was also available to assist in refining the forecast.

For Industrial customers, including Rate Schedule 5 customers (included in the Firm Sales category illustrated in the Table on Page 7), the energy demand was based upon the results of an annual survey of individual customers conducted during the second



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quarter of 2008. Subsequent to the survey, in consideration of the recent economic events, the volumes for this customer segment was revised downward by 10%.



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**14.0 Reference : Exhibit B-1, Section A-4, Gas Sales and Transportation Volume, pp. 9 & 10**

14.1 In a table format please provide a breakdown of the revenues from 2004 to present for the following:

**14.1.1 Southern Crossing Pipeline (SCP) Third Party Revenues**

**Response:**

	Northwest Natural Gas	PG& E Revenues & Termination	MCRA BC Hydro	Motor Fuel Tax	Net Mitigation	Total
2004	\$ 1,199,523.60	\$ 3,000,000.00	\$ 3,600,027.00		\$ 1,000,000.00	\$ 8,799,550.60
2005	\$ 7,197,141.60	\$ -	\$ 3,600,022.50	\$ (24,197.07)	\$ 1,000,000.00	\$ 11,772,967.03
2006	\$ 7,277,109.84	\$ (825,000.00)	\$ 3,600,000.00	\$ (27,098.08)	\$ 1,000,000.00	\$ 11,025,011.76
2007	\$ 7,297,101.90	\$ (825,000.00)	\$ 3,600,000.00	\$ (50,063.02)	\$ 1,000,000.00	\$ 11,022,038.88
2008 YTD	\$ 4,878,062.64	\$ (550,000.00)	\$ 2,400,000.00	\$ (39,290.50)	\$ 600,000.00	\$ 7,288,772.14

**Note:** 2008 YTD includes January through August 2008

**14.1.2 Miscellaneous Revenue**

**Response:**

	Late Payment Charges	NSF Charges	Connection Charges	Total
<b>2004</b>	\$ 2,802,000.00	\$ 99,000.00	\$ 4,009,000.00	\$6,910,000.00
<b>2005</b>	\$ 2,832,000.00	\$ 99,000.00	\$ 3,859,000.00	\$6,790,000.00
<b>2006</b>	\$ 3,048,000.00	\$ 81,000.00	\$ 3,903,000.00	\$7,032,000.00
<b>2007</b>	\$ 2,932,000.00	\$ 80,000.00	\$ 3,973,000.00	\$6,985,000.00
<b>2008 YTD</b>	\$ 2,520,000.00	\$ 59,000.00	\$ 2,274,000.00	\$4,853,000.00

**Note:** 2008 YTD includes January through August 2008



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#### 14.1.3 Burrard Thermal Revenue

**Response:**

	Burrard Thermal
2004	\$ 9,906,791.34
2005	\$ 9,924,347.25
2006	\$ 9,936,286.00
2007	\$ 9,953,172.00
2008 YTD	\$ 6,643,568.00

**Note:** 2008 YTD includes January through August 2008

#### 14.1.4 Terasen Gas (Vancouver Island) Inc. Revenue

**Response:**

	TGVI Wheeling
2004	\$ 3,945,362.41
2005	\$ 4,046,621.99
2006	\$ 4,041,990.00
2007	\$ 4,066,512.00
2008 YTD	\$ 2,226,687.36

**Note:** 2008 YTD includes January through August 2008



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## 15.0 Reference: Exhibit B-1, Section A-4, p. 9

### Miscellaneous Revenue from NRBs

"Other miscellaneous revenue is estimated at approximately \$68,000 comprising of Non-Regulated Businesses (NRB) recoveries."

15.1 Please provide a breakdown of the \$68,000 NRB recoveries by type of work performed and by NRB.

### Response:

The Miscellaneous Revenue from NRB consists of the general overhead and facilities charges per the transfer pricing policy on the Specific Committed Service contracts planned for 2009.

### 2009 Miscellaneous Revenue from Non-Regulated Businesses (NRB) Recoveries

#### **By NRB**

Terasen Inc.	35,156
Terasen Energy Services Inc.	17,349
Inland Energy Corp.	601
Terasen Huntington Inc.	14,768
	<u>67,873</u>

#### **By Function**

President TGI	6,396
Distribution	3,129
Marketing	25,606
Business Services	5,139
Gas Supply & Transmission	2,404
Finance & Regulatory Affairs	17,484
Operations Governance	7,716
	<u>67,873</u>



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**16.0 Reference: Exhibit B-1, Section A-6, Taxes and Other Expense, p. 6**

- 16.1 Explain the change in Long Term Compensation from \$0.957 million in Approved 2008 to (\$1.914) million in 2009 (Section A-6, page 6, line 16) by average amount per eligible employee.

**Response:**

Long term incentive/retention compensation levels have remained consistent over the period. However the fact that this compensation is on a deferred basis leads to the presence of timing differences for tax purposes. In this case, compensation amounts of \$0.957 million were accrued (add back for tax purposes) and expensed in each of years 2007 and 2008 with these amounts aggregating \$1.914 million becoming due and payable in 2009 (deduct for tax purposes). The compensation amounts of \$0.957 million annually will be shared by 68 eligible employees for an average per employee award of \$14,000.



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## 17.0 Reference: Exhibit B-1, Section A-7, Return on Capital, p. 2

17.1 Please show the calculation of the Effective Interest Cost for the following long-term debt issues and LILO Obligations:

Description	Issue Date
Series A Purchase Money Mortgage	03-Dec-1990
Series B Purchase Money Mortgage	30-Nov-1991
Medium Term Note - Series 11 (Re-opening)	21-Sep-1999
2008 Medium Term Debt Issue – Series 23	13-May-2008
LILO Obligations - Kelowna	
LILO Obligations - Nelson	
LILO Obligations – Vernon	
LILO Obligations – Prince George	

### Response:

Please refer to the revised Long Term Debt schedule provided in the Amended Annual Review Application. Section A, Tab 7 page 2 contained an error in row 9, columns 6 & 7; 2009 Medium Term Debt Issue - Series 23; the underwriter fee and other costs associated with the debt issue were inadvertently excluded from the calculation. This resulted in a minor change to the effective interest rate and annual cost associated with Series 23 and the resulting income tax expense calculation. The debt issue costs associated with Series 23 have been updated to reflect the correct amount of \$2.0 million.

The Effective Interest Cost is calculated using the Internal Rate of Return ("IRR") methodology for long-term debt issues. It gives recognition to the fact that the actual rate of interest is higher (lower) than the coupon rate due to deducting discounts and issue costs from the proceeds of long-term debt (adding bond issue premiums to the proceeds of long-term debt). The IRR methodology calculates an internal rate of return for a series of cash flows that are made up the net proceeds of the issue offset by the annual interest payments as calculated by the Coupon Rate and the Principal repayment upon maturity of the face value of the issue.

The formula is as follows:

$$NPV = 0 = \text{Net Proceeds of Issue} + \frac{\text{Interest Payment Year 1}}{(1+IRR)^1} + \dots + \frac{\text{Interest Payment Year } n}{(1+IRR)^n}$$

Where "n" = number of years in the life of the Issue

The detail effective interest cost calculations are as follows:



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#### Series A Purchase Money Mortgage

Issue Date	03-Dec-90	Issue Amt.	\$	59	Million
Maturity Date	30-Sep-15	Issue Costs	\$	1	Million
Payments	20	Coupon rate		11.80%	

	Semi-Annual	Annual
IRR (Effective Cost)	6.027%	12.054%

Time Period	Proceeds	Interest	Bond repayment	Cash Flow	Present Value
0	\$ 58.12	\$ -	\$ -	\$ 58.12	\$ 58.12
1		(3.48)		(3.48)	(3.28)
2		(3.48)		(3.48)	(3.10)
3		(3.48)		(3.48)	(2.92)
4		(3.48)		(3.48)	(2.75)
5		(3.48)		(3.48)	(2.60)
6		(3.48)		(3.48)	(2.45)
7		(3.48)		(3.48)	(2.31)
8		(3.48)		(3.48)	(2.18)
9		(3.48)		(3.48)	(2.06)
10		(3.48)		(3.48)	(1.94)
11		(3.48)		(3.48)	(1.83)
12		(3.48)		(3.48)	(1.72)
13		(3.48)		(3.48)	(1.63)
14		(3.48)		(3.48)	(1.53)
15		(3.48)		(3.48)	(1.45)
16		(3.48)		(3.48)	(1.36)
17		(3.48)		(3.48)	(1.29)
18		(3.48)		(3.48)	(1.21)
19		(3.48)		(3.48)	(1.14)
20		(3.48)	(58.98)	(62.46)	(19.38)
					\$ 0.00



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# **Series B Purchase Money Mortgage**

Issue Date	30-Nov-91	Issue Amt.	\$	157	Million
Maturity Date	30-Nov-16	Issue Costs	\$	2	Million
Payments	50	Coupon rate		10.30%	

	Semi-Annual	Annual
IRR (Effective Cost)	5.230%	10.461%

Time Period	Proceeds	Interest	Bond repayment	Cash Flow	Present Value
0	\$ 155.05	\$ -	\$ -	\$ 155.05	\$ 155.05
1		(8.10)		(8.10)	(7.70)
2		(8.10)		(8.10)	(7.31)
3		(8.10)		(8.10)	(6.95)
4		(8.10)		(8.10)	(6.61)
5		(8.10)		(8.10)	(6.28)
6		(8.10)		(8.10)	(5.97)
7		(8.10)		(8.10)	(5.67)
8		(8.10)		(8.10)	(5.39)
9		(8.10)		(8.10)	(5.12)
10		(8.10)		(8.10)	(4.86)
11		(8.10)		(8.10)	(4.62)
12		(8.10)		(8.10)	(4.39)
13		(8.10)		(8.10)	(4.17)
14		(8.10)		(8.10)	(3.97)
15		(8.10)		(8.10)	(3.77)
16		(8.10)		(8.10)	(3.58)
17		(8.10)		(8.10)	(3.40)
18		(8.10)		(8.10)	(3.24)
19		(8.10)		(8.10)	(3.07)
20		(8.10)		(8.10)	(2.92)
21		(8.10)		(8.10)	(2.78)
22		(8.10)		(8.10)	(2.64)
23		(8.10)		(8.10)	(2.51)
24		(8.10)		(8.10)	(2.38)
25		(8.10)		(8.10)	(2.26)
26		(8.10)		(8.10)	(2.15)
27		(8.10)		(8.10)	(2.04)
28		(8.10)		(8.10)	(1.94)
29		(8.10)		(8.10)	(1.85)
30		(8.10)		(8.10)	(1.75)
31		(8.10)		(8.10)	(1.67)
32		(8.10)		(8.10)	(1.58)
33		(8.10)		(8.10)	(1.51)
34		(8.10)		(8.10)	(1.43)
35		(8.10)		(8.10)	(1.36)
36		(8.10)		(8.10)	(1.29)
37		(8.10)		(8.10)	(1.23)
38		(8.10)		(8.10)	(1.17)
39		(8.10)		(8.10)	(1.11)
40		(8.10)		(8.10)	(1.05)
41		(8.10)		(8.10)	(1.00)
42		(8.10)		(8.10)	(0.95)
43		(8.10)		(8.10)	(0.90)
44		(8.10)		(8.10)	(0.86)
45		(8.10)		(8.10)	(0.82)
46		(8.10)		(8.10)	(0.78)
47		(8.10)		(8.10)	(0.74)
48		(8.10)		(8.10)	(0.70)
49		(8.10)		(8.10)	(0.67)
50		(8.10)	(157.27)	(165.37)	(12.92)
					\$ (0.00)



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**Medium Term Note- Series 11**

Issue Date	21-Sep-99	Issue Amt.	\$	150	Million
Maturity Date	21-Sep-29	Issue Costs	\$	2	Million
Payments	60	Coupon rate		6.95%	

	Semi-Annual	Annual
IRR (Effective Cost)	3.537%	7.073%

Time Period	Proceeds	Interest	Bond repayment	Cash Flow	Present Value
0	\$ 147.71	\$ -	\$ -	\$ 147.71	\$ 147.71
1		(5.21)		(5.21)	(5.03)
2		(5.21)		(5.21)	(4.86)
3		(5.21)		(5.21)	(4.70)
4		(5.21)		(5.21)	(4.54)
5		(5.21)		(5.21)	(4.38)
6		(5.21)		(5.21)	(4.23)
7		(5.21)		(5.21)	(4.09)
8		(5.21)		(5.21)	(3.95)
9		(5.21)		(5.21)	(3.81)
10		(5.21)		(5.21)	(3.68)
11		(5.21)		(5.21)	(3.56)
12		(5.21)		(5.21)	(3.43)
13		(5.21)		(5.21)	(3.32)
14		(5.21)		(5.21)	(3.20)
15		(5.21)		(5.21)	(3.09)
16		(5.21)		(5.21)	(2.99)
17		(5.21)		(5.21)	(2.89)
18		(5.21)		(5.21)	(2.79)
19		(5.21)		(5.21)	(2.69)
20		(5.21)		(5.21)	(2.60)
21		(5.21)		(5.21)	(2.51)
22		(5.21)		(5.21)	(2.43)
23		(5.21)		(5.21)	(2.34)
24		(5.21)		(5.21)	(2.26)
25		(5.21)		(5.21)	(2.19)
26		(5.21)		(5.21)	(2.11)
27		(5.21)		(5.21)	(2.04)
28		(5.21)		(5.21)	(1.97)
29		(5.21)		(5.21)	(1.90)
30		(5.21)		(5.21)	(1.84)
31		(5.21)		(5.21)	(1.77)
32		(5.21)		(5.21)	(1.71)
33		(5.21)		(5.21)	(1.66)
34		(5.21)		(5.21)	(1.60)
35		(5.21)		(5.21)	(1.54)
36		(5.21)		(5.21)	(1.49)
37		(5.21)		(5.21)	(1.44)
38		(5.21)		(5.21)	(1.39)
39		(5.21)		(5.21)	(1.34)
40		(5.21)		(5.21)	(1.30)
41		(5.21)		(5.21)	(1.25)
42		(5.21)		(5.21)	(1.21)
43		(5.21)		(5.21)	(1.17)
44		(5.21)		(5.21)	(1.13)
45		(5.21)		(5.21)	(1.09)
46		(5.21)		(5.21)	(1.05)
47		(5.21)		(5.21)	(1.02)
48		(5.21)		(5.21)	(0.98)
49		(5.21)		(5.21)	(0.95)
50		(5.21)		(5.21)	(0.92)
51		(5.21)		(5.21)	(0.89)
52		(5.21)		(5.21)	(0.86)
53		(5.21)		(5.21)	(0.83)
54		(5.21)		(5.21)	(0.80)
55		(5.21)		(5.21)	(0.77)
56		(5.21)		(5.21)	(0.74)
57		(5.21)		(5.21)	(0.72)
58		(5.21)		(5.21)	(0.69)
59		(5.21)		(5.21)	(0.67)
60		(5.21)	(150.00)	(155.21)	(19.29)
					\$ 0.00



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**Medium Term Note- Series 23**

Issue Date	13-May-08	Issue Amt.	\$ 250 Million
Maturity Date	13-May-38	Issue Costs	\$ 2.0 Million
Payments	59	Coupon rate	5.80%

	Semi-Annual	Annual
IRR (Effective Cost)	2.929%	5.858%

Time Period	Proceeds	Interest	Bond repayment	Cash Flow	Present Value
0	\$ 247.96	\$ -	\$ -	\$ 247.96	\$ 247.96
1		(7.25)		(7.25)	(7.04)
2		(7.25)		(7.25)	(6.84)
3		(7.25)		(7.25)	(6.65)
4		(7.25)		(7.25)	(6.46)
5		(7.25)		(7.25)	(6.28)
6		(7.25)		(7.25)	(6.10)
7		(7.25)		(7.25)	(5.92)
8		(7.25)		(7.25)	(5.75)
9		(7.25)		(7.25)	(5.59)
10		(7.25)		(7.25)	(5.43)
11		(7.25)		(7.25)	(5.28)
12		(7.25)		(7.25)	(5.13)
13		(7.25)		(7.25)	(4.98)
14		(7.25)		(7.25)	(4.84)
15		(7.25)		(7.25)	(4.70)
16		(7.25)		(7.25)	(4.57)
17		(7.25)		(7.25)	(4.44)
18		(7.25)		(7.25)	(4.31)
19		(7.25)		(7.25)	(4.19)
20		(7.25)		(7.25)	(4.07)
21		(7.25)		(7.25)	(3.95)
22		(7.25)		(7.25)	(3.84)
23		(7.25)		(7.25)	(3.73)
24		(7.25)		(7.25)	(3.63)
25		(7.25)		(7.25)	(3.52)
26		(7.25)		(7.25)	(3.42)
27		(7.25)		(7.25)	(3.33)
28		(7.25)		(7.25)	(3.23)
29		(7.25)		(7.25)	(3.14)
30		(7.25)		(7.25)	(3.05)
31		(7.25)		(7.25)	(2.96)
32		(7.25)		(7.25)	(2.88)
33		(7.25)		(7.25)	(2.80)
34		(7.25)		(7.25)	(2.72)
35		(7.25)		(7.25)	(2.64)
36		(7.25)		(7.25)	(2.56)
37		(7.25)		(7.25)	(2.49)
38		(7.25)		(7.25)	(2.42)
39		(7.25)		(7.25)	(2.35)
40		(7.25)		(7.25)	(2.28)
41		(7.25)		(7.25)	(2.22)
42		(7.25)		(7.25)	(2.16)
43		(7.25)		(7.25)	(2.10)
44		(7.25)		(7.25)	(2.04)
45		(7.25)		(7.25)	(1.98)
46		(7.25)		(7.25)	(1.92)
47		(7.25)		(7.25)	(1.87)
48		(7.25)		(7.25)	(1.81)
49		(7.25)		(7.25)	(1.76)
50		(7.25)		(7.25)	(1.71)
51		(7.25)		(7.25)	(1.66)
52		(7.25)		(7.25)	(1.62)
53		(7.25)		(7.25)	(1.57)
54		(7.25)		(7.25)	(1.53)
55		(7.25)		(7.25)	(1.48)
56		(7.25)		(7.25)	(1.44)
57		(7.25)		(7.25)	(1.40)
58		(7.25)		(7.25)	(1.36)
59		(7.25)		(7.25)	(1.32)
60		(7.25)	(250.00)	(257.25)	(45.51)
					\$ 0.00



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For the LILO Obligations, the Effective Interest Cost is calculated using the average principal outstanding and actual interest cost per contract for the four municipalities requested:

	Average Principal Outstanding	Actual Interest Per Contract	Effective Interest Rate
	(1)	(2)	(2)/(1)
Kelowna - Primary	\$25,380,528	\$1,533,926	6.044%
Kelowna Additions added in 2001	\$322,757	\$17,295	5.359%
Kelowna Additions added in 2002	\$360,879	\$19,336	5.358%
Kelowna Additions added in 2003	\$716,580	\$40,164	5.605%
Kelowna Additions added in 2004	\$960,083	\$46,175	4.810%
Kelowna	\$27,740,829	\$1,656,897	5.973%
Nelson	\$4,406,873	\$313,738	7.119%
Vernon	\$13,195,254	\$1,082,485	8.204%
Prince George	\$33,799,491	\$2,423,496	7.170%



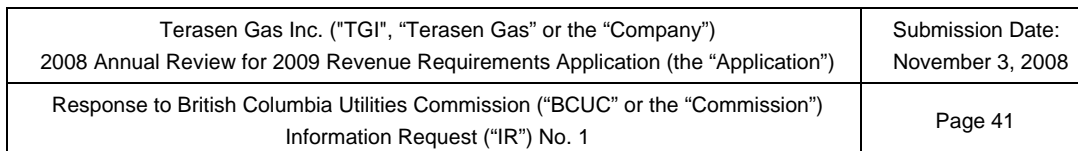
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**18.0 Reference: Exhibit B-1, Section A-8, p. 2**

18.1 Please explain the \$1.456 million difference between the Approved 2007 and the Actual 2007 Adjustment to 13-month average.

**Response:**

The \$1.456 million is the adjustment required to convert an opening and closing mid-year average to a 13-month average in 2008. Please see below for computation.



Line No.	Particulars	January	February	March	April	May	June	July	August	September	October	November	December	Total 2008
1	Plant In Service, Beginning	\$ 3,140,066												\$ 3,140,066
2	Add: 2008 CPCNs	8,196												8,196
3	Plant in Service, Beginning	3,148,262	3,157,503	3,164,110	3,166,131	3,171,764	3,180,896	3,183,498	3,191,032	3,198,566	3,206,100	3,213,634	3,221,168	3,148,262
4														
5	Add: Adjustments	-	-	-	-	-	-	-	-	-	-	-	-	-
6														
7	Add: Capital Additions	9,321	6,688	8,173	9,428	9,350	5,960	11,291	11,291	11,291	11,291	11,291	11,292	116,667
8														
9														
10														
11	Total Plant Additions	9,321	6,688	8,173	9,428	9,350	5,960	11,291	11,291	11,291	11,291	11,291	11,292	116,667
12														
13	Less: Retirements	(81)	(81)	(6,152)	(3,795)	(219)	(3,358)	(3,757)	(3,757)	(3,757)	(3,757)	(3,757)	(3,754)	(36,223)
14														
15	Plant in Service, Ending	\$ 3,157,503	\$ 3,164,110	\$ 3,166,131	\$ 3,171,764	\$ 3,180,896	\$ 3,183,498	\$ 3,191,032	\$ 3,198,566	\$ 3,206,100	\$ 3,213,634	\$ 3,221,168	\$ 3,228,705	\$ 3,228,706
16														
17														
18														
19										Mid-Year Average Plant in Service				\$ 3,188,484
20										13 Month Average Plant in Service				3,187,028
21														
22										Adjustment to 13- Month Average				\$ (1,456)

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18.2 Please explain the \$30.880 million difference between the Approved 2007 and the Actual 2007 Other Working Capital.

**Response:**

The table below provides a breakdown of the 30.9 million difference between Approved 2008 and Projected 2008 Other Working Capital; the difference is largely attributable to a higher valued natural gas inventory.

Particulars (1)	Approved 2008 (2) (\$000s)	Projected 2008 (3) (\$000s)	2008 Projected vs. Approved IIC / (DEC) (4) (\$000s)
Other Working Capital	136,843	167,723	30,880
Gas in Storage	126,801	161,998	35,197
Transmission Line Pack Gas	3,367	4,145	778
Inventories and Misc	6,675	1,580	(5,095)

18.3 Please explain the \$1.318 million difference between the Approved 2007 and the Actual 2007 Cash working capital

**Response:**

The table below provides a breakdown of the \$1.318 million difference between the Approved 2008 and Projected 2008 cash working capital.

Particulars (1)	Approved 2008 (2) (\$000s)	Projected 2008 (3) (\$000s)	2008 Projected vs. Approved IIC / (DEC) (4) (\$000s)
Cash Working Capital	(28,452)	(29,770)	(1,318)
O&M	(17,756)	(18,182)	(426)
Bad Debts	(4,545)	(5,212)	(667)
Employee Withholdings	(2,677)	(2,903)	(226)
Customer Deposits and Others	(3,474)	(3,474)	0



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**19.0 Reference: Exhibit B-1, Section A-8, 2008 Earnings Sharing Calculation, p. 6**

The calculation of the Customer's share of the earnings sharing for 2008 shows an amount of \$12,029 pre-tax and an amount of \$8,240 net of tax for a difference of \$3,789.

- 19.1 Please confirm that the gross-up from net of tax to pre-tax for the Customer's earnings sharing does not increase TGI's total income tax for 2009 on Tab A-6, p. 5.

**Response:**

Confirmed.

- 19.2 Please explain if refunding the Customer's share of the earnings sharing through a rider instead of a reduction to 2009 revenue requirements removes the income tax impact from Tab A-6, p. 6. If so, how?

**Response:**

Refunding the Customer's share of the earnings sharing through a rider results in no income tax impact of earnings sharing appearing on Tab A-6, page 6; if earnings sharing was included as a component of the revenue requirement and earned return calculation, a corresponding tax impact would be shown.

For Canada Revenue Agency purposes, earnings sharing is taxed on a cash basis; in the year that the rider is refunded to customers, taxes are reduced.



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## 20.0 Reference: Exhibit B-1, Section B-3, Education and Outreach Initiatives, pp. 1-11

In Section 3.0 of the DSM Report TGI explains its Education and Outreach Programs. In Section 4, TGI explains its 2008 Incentive Program Descriptions.

20.1 For the years actual 2003 to 2006, projected 2008, forecast 2009 please provide a costing (budget and actual) of the various Education and Outreach Programs and any other non-grant programs. Also identify if the program is for load building or conservation. Please confirm all these costs are expensed as DSM O&M.

### Response:

Please see the table below. All TGI DSM expenditures are for conservation. All Education and Outreach costs are expensed as DSM O&M. The Company would prefer not to provide a forecast for 2009 as the Company anticipates a decision on its Energy Efficiency and Conservation Programs ("EEC") Application late in 2008 or early in 2009 that will change the Company's level of expenditure and consequently level and type of Education and Outreach activity, thus the Company is unable to provide forecast costs at a detailed program level for 2009.

Year	2003	2004	2005	2006	2007	2008
Program Name	Program Amount	Program Amount	Program Amount	Program Amount	Program Amount	Program Amount
Destination Conservation	\$ 69,000	n/a	n/a	\$ 18,000	\$ 67,500	\$ 72,000
Commercial Energy Utilization Advisory	\$ 40,365	\$ 28,189	\$ 15,485	\$ 75,125	\$ 14,533	\$ 106,167
General Education and Outreach Activity	\$ 100,447	\$ 127,906	\$ 515,542	\$ 632,583	\$ 183,366	\$ 337,617
Community Energy Planning Participation	\$ 20,946	\$ 10,023	n/a	\$ 10,000	\$ 12,175	\$ 10,000

Please note that Program amounts may include accruals from the previous year as well as partner contributions

Please note that General Education and Outreach Activity for 2005 and 2006 includes Mass Media Communications (television)

Please note that General Education and Outreach Activity for 2007 - 2008 includes Mass Media Communications (radio)



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- 20.2 For the years actual 2003 to 2007, projected 2007, forecast 2009 please provide a costing summary of the incentive programs. Also identify if the program is for load building or conservation.

**Response:**

Please see the table below – the Company has assumed that the question should have read, "For the years actual 2003 to 2007, projected 2008, forecast 2009 please provide a costing summary of the incentive programs." All TGI DSM expenditures are for conservation. The Company would prefer not to provide a forecast for 2009 as the Company anticipates a decision on its EEC Application late in 2008 or early in 2009 that will change the Company's level of expenditure and consequently level and type of Education and Outreach activity, thus the Company is unable to provide forecast costs at a detailed program level for 2009.



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Year	2003		2004		2005		2006		2007		2008 YTD	
Program Name	Incentive Amount	Program Amount	Incentive Amount	Program Amount	Incentive Amount	Program Amount	Incentive Amount	Program Amount	Incentive Amount	Program Amount	Incentive Amount	Program Amount
Energy Star Heating Upgrade	\$ 887,833	\$ 397,386	\$ 356,265	\$ 224,645	\$ 215,050	\$ 133,755	\$ 396,450	\$ 130,692	\$ 381,250	\$ 186,350	\$ 747,250	\$ 507,339
New Construction Energy Star Heating Program	\$ -	\$ -	\$ 75,000	\$ 48,691	\$ 375,000	\$ 33,486	\$ 82,500	\$ -	\$ 1,026,000	\$ 2,617	\$ 434,000	\$ -
Efficient Boiler Program	\$ -	\$ -	\$ 240,000	\$ 242,125	\$ 208,000	\$ 52,018	\$ 741,472	\$ 37,370	\$ 297,542	\$ 4,800	\$ 78,000	\$ 23,000
EnerChoice Fireplace Pilot Program	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 31,432	\$ 25,000	\$ 72,000

Please note that Incentive and Program amounts may include accruals from the previous year as well as partner contributions

Please note that Energy Star Heating Upgrade Incentive and Program Amounts for 2007 includes spending for 2006/2007

Please note that Energy Star Heating Upgrade Incentive and Program Amounts for 2008 includes spending for 2007/2008

Please note that although the New Construction Energy Star Heating Program ended on December 31 2007, there were incentive payments made in 2008 that had been committed to in years previous to that date.

Please note that 2008 Incentive and Program Amounts are YTD



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**21.0 Reference: Exhibit B-2, Tab 4, Forecast Methodology, p.1**

"The forecast of industrial accounts and associated volumes are updated to reflect the latest industrial survey conducted during the summer of 2008."

21.1 Since the industrial forecast was based on surveys done during summer 2008, please explain whether, and to what extent, Terasen anticipates that subsequent economic events may mean that those forecasts now overstate future demand.

**Response:**

Terasen Gas does believe the economic events that occurred subsequent to the preparation of the industrial survey indicate those forecasts now overstate future demand. Upon considering the impact of those economic events, Terasen Gas has responded by reducing industrial volumes in the November 3 Amended Application for Rate classes 5, 7, 22, 25, and 27 by 10% from those filed in the Annual Review Advance Materials filed October 8, 2008.

"Rate Classes 4, 5 & 6 customer account and demand growth is modelled from market information and historical trends."

21.2 What market information was used to model the customer account and demand growth for Rate Classes, 4, 5, and 6?

**Response:**

For Rate 4 (seasonal) customers, no new market information was available from which to project customer account and demand growth. In the absence of new information, customer account and demand growth was based upon historical trends.

For Rate 5 (General Firm Service) customers, the results of the industrial survey were considered as a proxy for this rate class. In sectors where significant changes were observed, they were reflected in the Rate 5 demand growth. In the absence of known customer additions or reductions, no customer growth was assumed.

For Rate 6 (NGV) customers, known customer additions were incorporated into the customer account and demand growth projections.



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"The customer additions forecast reflects prevailing macroeconomic circumstances affecting residential and commercial customers."

21.3 Please state whether the additions forecast was prepared prior to September 19, 2008.

**Response:**

The forecast was prepared prior to September 19, 2008. The Amended Application dated November 3, 2008, incorporates the latest customer additions information.

21.4 If the forecast was prepared prior to September 19, 2008, please explain whether, and to what extent, Terasen anticipates subsequent economic events will mean that those forecasts may now overstate future demand.

**Response:**

As discussed in the response to BCUC IR 1.21.1, Terasen Gas has recognized the forecast prepared prior to the recent economic events may overstate future demand. For Industrial customers, Terasen Gas has responded by reducing volumes by 10% from those reported in the Annual Review. For Residential and Commercial customers, Terasen Gas has decreased the forecast number of customer additions for 2009 by 20%, from those reported in the Annual Review.



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**22.0 Reference: Exhibit B-2, Tab 4, Forecast Methodology, p.2 and p.6**

"Industrial and transportation sectors will continue to be affected by the slowdown of the U.S. economy. (Exhibit B-2, p.2)"

"...the primary source of information for the industrial energy forecast was the industrial survey which was conducted over the summer of 2008. (Exhibit B-2, p.6)"

22.1 What is Terasen's worst-case estimate as to the impact of the slowdown of the U.S. economy on industrial demand, given economic developments during September?

**Response:**

Terasen Gas does not prepare "worst case" scenarios for industrial demand. Terasen Gas has considered the impact of the slowdown of the U.S. economy on industrial demand, given economic developments during September, and has responded by revising the forecast downward as discussed in response to BCUC IR 1.21.1. It should be noted that for Industrial customers, 58% of projected revenue is in the form of fixed revenue, and therefore exposure to further reductions in demand (barring bankruptcies) is somewhat mitigated.

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### 23.0 Reference: Exhibit B-2, Tab 4, Forecast Methodology, pp.4, 5

23.1 Please show the actual residential capture rates (new Terasen accounts / new dwellings) for 2005 through 2007, and the forecast rate for 2009.

#### Response:

Terasen Gas estimates residential capture rates by comparing the new net residential customers to the housing completions as reported by the CMHC in Terasen Gas' service territory. The comparisons are made using a twelve month rolling average, so as to smooth out timing differences between the reporting of housing completions and also Terasen Gas customer additions. Following are the estimated capture rates from 2005 through 2007:

	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	
Customer Additions	10826	10615	10479	10880	11067	10790	11149	11431	11173	11049	10668	11107	
Housing Completions	19345	19595	19750	20200	21350	22096	22100	22223	21069	21379	21992	21696	Average
Capture Rate	56%	54%	53%	54%	52%	49%	50%	51%	53%	52%	49%	51%	52%

	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	
Customer Additions	10977	10704	11110	10709	10522	11573	11183	10883	10342	10121	10242	10186	
Housing Completions	21289	20650	23873	23485	22857	22643	22725	23298	23945	24119	23873	24397	Average
Capture Rate	52%	52%	47%	46%	46%	51%	49%	47%	43%	42%	43%	42%	47%

	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	
Customer Additions	9947	10412	10005	10105	10512	9538	9538	9528	9578	9565	8893	9079	
Housing Completions	24698	26019	23095	23379	23266	23860	23862	23759	23724	24235	24118	24333	Average
Capture Rate	40%	40%	43%	43%	45%	40%	40%	40%	40%	39%	37%	37%	41%

23.2 What factors does Terasen attribute changes in the residential capture to, and how are they reflected in the customer accounts forecasts presented in the Application?

#### Response:

Terasen attributes changes in the residential capture rate primarily to the shift in housing mix towards more multi-family dwellings. Multi-family dwellings, as a percentage of total housing starts, have been increasing for some time now, and have recently become the dominant housing type in BC. Although housing type is not distinguishable for the majority of its customers, Terasen Gas estimates the capture rate for multi-family dwellings is lower than for single-family dwellings. Therefore, all else being equal, as the share of multi-family dwellings increases (with respect to total dwellings), the residential capture rate will decline. As discussed in the response to BCUC IR 1.32.1 below, Terasen Gas does not forecast customer additions by housing type. Given that, and the fact that the capture rate does incorporate housing type, the extent to which it is incorporated into the forecast is in the historical customer additions from which future growth is based.

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23.3 Please show the "Year-Ending Customers" (as per the table on page 4) segregated into the separate markets (i.e. residential, commercial, industrial, transportation).

**Response:**

The following table illustrates the breakdown of year-ending customers as per the table on page 4. Please note the 2009 forecast includes the adjustment to customer additions included in the November 3 Amended Application.

**TGI Year-Ending Customers<sup>1</sup>**

	2005 Actuals	2006 Actuals <sup>5</sup>	2007 Actuals	2008 Projected	2009 Forecast
Residential <sup>2</sup>	719,356	731,899	741,176	749,615	756,025
Commercial <sup>3</sup>	78,835	79,666	80,360	81,064	81,604
Industrial & Transportation <sup>4</sup>	1,187	1,118	1,062	1,055	1,054
<b>Total</b>	<b>799,378</b>	<b>812,683</b>	<b>822,598</b>	<b>831,734</b>	<b>838,683</b>

Notes:

1. Includes Lower Mainland, Inland, Columbia and Revelstoke service regions only.
2. Rate 1
3. Rates 2, 3 & 23
4. Rates 4, 5, 6, 7, 22, 25 & 27
5. Includes 3,124 additional customers due to amalgamation of Squamish customers

The 2008 Resource Plan, Appendix "G" presents customer count tables. The Resource Plan figures appear to be lower than those in the Application.

23.4 Please reconcile the figures in the "TGI Customer Growth" table on page 4 of the Application with those shown in Appendix "G" of the 2008 Resource Plan.

**Response:**

The following provides a comparison of the customer additions as illustrated in Appendix "G" of the Resource Plan to those illustrated in page 4 of the Annual Review. Please note the 2009 forecast (Annual Review) includes the adjustment to customer additions included in the November 3 Amended Application.



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### Customer Additions - Resource Plan

	2008	2009
Residential	12,816	10,682
Commercial	1,372	681
Industrial & Transportation	47	-1
Total	14,235	11,362

### Customer Additions - Annual Review

	2008	2009
Residential	8,439	6,410
Commercial	704	540
Industrial & Transportation	-7	-1
Total	9,136	6,949

### Difference (Annual Review less Resource Plan)

	2008	2009
Residential	-4,377	-4,272
Commercial	-668	-141
Industrial & Transportation	-54	0
Total	-5,099	-4,413

The variances seen between the customer additions figures filed in the Resource Plan and those filed in the TGI Annual review are mainly due to timing. Since the Resource Plan was filed, Terasen has begun a new forecast cycle, which incorporates more recent information such as the observed increase in customer turnover, and also a revised housing starts forecast which reflects recent economic conditions.

"The 2008 projected customer additions have been revised downward from the 11,797 forecast last year to 9,136. The revision was made after experiencing significantly lower than expected customer additions in 2007 (9,915 actual additions versus 13,129 projected), and observing a continuation of this trend into 2008...

"Although the variance between expected and actual customer additions is still under investigation, initial results indicate the issue is with regards to "customer turnover". Customer turnover represents the difference between the number of meters either locked off (due to the customer falling into arrears) or being removed from the system (due to a premise becoming vacant) in a particular year, and those that return to the system in that same year. (Exhibit B-2, p.4)"

23.5 What factors does Terasen believe influence customer turnover? Please attribute those factors to the observed customer turnover during 2007.

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**Response:**

Other than the observed increase in customer turnover during 2007 and into 2008, Terasen is unable to definitively explain the factors that are influencing the trend at this time. The analysis that has been performed has shown no trend with regards to regional or geographical boundaries, nor has it shown a trend regarding consumption (when analyzing the twelve month period prior to being disconnected).

However, recent participation in the Southern Gas Association's Fall Leadership Conference has brought to light the fact that other utilities have experienced the same issue, more specifically, Atlanta Gas Light Company ("AGL"). AGL has been able to segment their customers (i.e. college graduate, home owner, lives in suburban area, etc.) and also investigate the appliance mix of their customers. The results of their analysis suggest that customer turnover is greatest for those customers living in suburban areas, owning their homes, and who are aged 45 years and under. AGL's analysis also indicated that the fewer number of natural gas appliances in each home, the greater the likelihood of customer turnover. The same holds for homes that are either 10-15 years old, or more than 15 years old.

Homes that are 10-15 years old are at risk of hot water tank failure, while homes that are more than 15 years old are at risk of furnace failure – both situations call for the homeowner to make a decision on fuel choice for their next hot water tank/furnace, and hence present the opportunity for customer turnover.

"In 2007, Terasen Gas observed a significant increase in customer turnover, but since only six months of actual customer additions were available to observe, no adjustment to the forecast was made. This year, with the trend being observed for over a year and a half, an adjustment to the forecast has been made. (Exhibit B-2, p.5)"

23.6 Please explain how the trend observed this year was incorporated into the customer accounts forecast for 2009.

**Response:**

The trend of increasing customer turnover was incorporated into the forecast by comparing the year-to-date customer turnover for 2008 against the same period in 2007, and then applying that ratio to the 2007 year-ending total customer turnover. This resulted in a decrease of 2,650 customer additions for the 2008 year-end projection. For 2009, Terasen Gas has not made further adjustments relating to customer turnover. Once the steps outlined below in the response to BCUC IR 1.23.7 have been taken, more information should be available from which to base future decisions regarding the extent to which the current trends will continue, if at all.



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23.7 What adjustment was made or steps does Terasen intend to take, if any, to mitigate the customer turnover trend?

**Response:**

Terasen Gas has investigated the customer turnover trend by analyzing the disconnections and reconnections by premise, over the years 2006 through 2008 year-to-date. The distribution of disconnections/reconnections has been investigated by region, town and rate class. The results of the analyses do not indicate there is a particular trait which would lead to the root cause of the trend. Further investigations regarding consumption patterns has also indicated there is no pattern – the trend appears to be a general increase in customer turnover for the “average” customer. The next steps Terasen Gas is taking begin with determining the “reason” for the lock-off occurring in the first place (arrears, vacant premise, etc.). Depending on the “reason” for lock-off, Terasen Gas may then survey a sample of those customers locked off in an attempt to understand why the customer did not return to the system.



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**24.0 Reference: Exhibit B-2, Tab 4, Forecast Methodology, pp.4, 5**

24.1 Please explain whether any adjustment to the forecasts of customer accounts or use rates were made related to the rate reductions announced on September 12, 2008.

**Response:**

Please refer to the response to BCUC IR 1.21.1.

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## 25.0 Reference: Exhibit B-2, Tab 4, Forecast Methodology, pp.4, 5

25.1 Please explain how the weather conditions during the first six months of 2008 compared to the same months in each of 2005, 2006, and 2007.

### Response:

The following tables illustrate the weather over the first six months of 2005 through 2008, along with the observed change in total HDD18 over the period.

Lower Mainland Region - Total HDD18				
Month	2005	2006	2007	2008
January	435	358	466	470
February	383	382	342	368
March	297	351	328	378
April	232	259	269	317
May	117	153	165	162
June	77	52	96	117
<b>Total</b>	1,542	1,555	1,665	1,812
<b>Change</b>		1%	7%	9%

For the Lower Mainland Region (illustrated above), when considering the first six months of each year, 2006 was 1% colder than 2005, 2007 was 7% colder than 2006, and 2008 was 9% colder than 2007.

Inland Region - Total HDD18				
	2005	2006	2007	2008
January	715	515	675	705
February	517	551	509	550
March	409	478	409	484
April	260	274	311	381
May	112	159	136	142
June	72	40	68	87
<b>Total</b>	2,085	2,016	2,108	2,349
<b>Change</b>		-3%	5%	11%

For the Inland Region (illustrated above), when considering the first six months of each year, 2006 was 3% warmer than 2005, 2007 was 5% colder than 2006, and 2008 was 11% colder than 2007.



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Columbia Region - Total HDD18				
	2005	2006	2007	2008
January	782	581	815	807
February	560	627	581	580
March	471	520	427	538
April	321	326	338	412
May	171	190	189	192
June	147	74	106	112
<b>Total</b>	2,451	2,318	2,456	2,641
<b>Change</b>		-5%	6%	8%

For the Columbia Region (illustrated above), when considering the first six months of each year, 2006 was 5% warmer than 2005, 2007 was 6% colder than 2006, and 2008 was 8% colder than 2007.

## 26.0 Reference: Exhibit B-2, Tab 4, Forecast Methodology, p.7

"A revenue forecast for each customer rate class is developed from the total energy forecasts and the applicable rates."

26.1 Please provide a table of the rates that are assumed for 2009, showing the fixed and variable charges (a table of Lower Mainland rates is sufficient).

### Response:

The following tables illustrate the rates, effective July 1, 2008, that were used in the analysis for 2009, for each of the Lower Mainland customer classes:

Region	Rate Class	Variable/Fixed	Charge Type	Rate
LML	Rate 1	Fixed	Basic Charge	11.130
LML	Rate 1	Variable	Commodity Charge	9.758
LML	Rate 1	Variable	Delivery Charge	2.783
LML	Rate 1	Variable	Gas Cost	7.167
LML	Rate 1	Variable	Midstream Charge	1.209
LML	Rate 1	Variable	Rider 3	-0.127
LML	Rate 1	Variable	Rider 4	-0.022
LML	Rate 1	Variable	Rider 5	0.094
LML	Rate 1	Variable	Rider 8	0.117

Region	Rate Class	Variable/Fixed	Charge Type	Rate
LML	Rate 2	Fixed	Basic Charge	23.350
LML	Rate 2	Variable	Commodity Charge	9.637
LML	Rate 2	Variable	Delivery Charge	2.330
LML	Rate 2	Variable	Gas Cost	7.252
LML	Rate 2	Variable	Midstream	1.303
LML	Rate 2	Variable	Rider 3	-0.098
LML	Rate 2	Variable	Rider 4	-0.017
LML	Rate 2	Variable	Rider 5	0.094
LML	Rate 2	Variable	Rider 8	0.047

Region	Rate Class	Variable/Fixed	Charge Type	Rate
LML	Rate 3	Fixed	Basic Charge	124.580
LML	Rate 3	Variable	Commodity Charge	9.627
LML	Rate 3	Variable	Delivery Charge	2.008
LML	Rate 3	Variable	Gas Cost	6.992
LML	Rate 3	Variable	Midstream	1.115
LML	Rate 3	Variable	Rider 3	-0.075
LML	Rate 3	Variable	Rider 4	-0.013
LML	Rate 3	Variable	Rider 5	0.094
LML	Rate 3	Variable	Rider 8	0.047



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Region	Rate Class	Variable/Fixed	Charge Type	Rate
LML	Rate 4	Fixed	Basic Charge	413.000
LML	Rate 4	Variable	Commodity Charge	9.780
LML	Rate 4	Variable	Delivery Charge	1.446
LML	Rate 4	Variable	Gas Cost	6.751
LML	Rate 4	Variable	Midstream Charge	0.823
LML	Rate 4	Variable	Rider 3	-0.043
LML	Rate 4	Variable	Rider 4	-0.006

Region	Rate Class	Variable/Fixed	Charge Type	Rate
LML	Rate 5	Fixed	Basic Charge	551.000
LML	Rate 5	Variable	Commodity Charge	9.780
LML	Rate 5	Variable	Delivery Charge	0.557
LML	Rate 5	Fixed	Demand Charge	13.776
LML	Rate 5	Variable	Gas Cost	6.751
LML	Rate 5	Variable	Midstream Charge	0.823
LML	Rate 5	Variable	Rider 3	-0.054
LML	Rate 5	Variable	Rider 4	-0.009

Region	Rate Class	Variable/Fixed	Charge Type	Rate
LML	Rate 6	Fixed	Basic Charge	58.000
LML	Rate 6	Variable	Commodity Charge	9.780
LML	Rate 6	Variable	Delivery Charge	3.194
LML	Rate 6	Variable	Gas Cost	6.460
LML	Rate 6	Variable	Midstream Charge	0.452
LML	Rate 6	Variable	Rider 3	-0.100
LML	Rate 6	Variable	Rider 4	-0.020

Region	Rate Class	Variable/Fixed	Charge Type	Rate
LML	Rate 7	Fixed	Basic Charge	827.000
LML	Rate 7	Variable	Commodity Charge	9.780
LML	Rate 7	Variable	Delivery Charge	0.931
LML	Rate 7	Variable	Midstream Charge	0.823
LML	Rate 7	Variable	Rider 3	-0.034
LML	Rate 7	Variable	Rider 4	-0.006

Region	Rate Class	Variable/Fixed	Charge Type	Rate
LML	Rate 22	Fixed	Admin Charge	73.000
LML	Rate 22	Fixed	Basic Charge	3444.000
LML	Rate 22	Variable	Delivery Charge	0.689
LML	Rate 22	Variable	Rider 3	-0.024
LML	Rate 22	Variable	Rider 4	-0.004



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Region	Rate Class	Variable/Fixed	Charge Type	Rate
LML	Rate 23	Fixed	Admin Charge	73.000
LML	Rate 23	Fixed	Basic Charge	124.580
LML	Rate 23	Variable	Delivery Charge	2.008
LML	Rate 23	Variable	Rider 3	-0.075
LML	Rate 23	Variable	Rider 4	-0.013
LML	Rate 23	Variable	Rider 5	0.094

Region	Rate Class	Variable/Fixed	Charge Type	Rate
LML	Rate 25	Fixed	Admin Charge	73.000
LML	Rate 25	Fixed	Basic Charge	551.000
LML	Rate 25	Variable	Delivery Charge	0.557
LML	Rate 25	Fixed	Demand Charge	13.776
LML	Rate 25	Variable	Rider 3	-0.054
LML	Rate 25	Variable	Rider 4	-0.009

Region	Rate Class	Variable/Fixed	Charge Type	Rate
LML	Rate 27	Fixed	Admin Charge	73.000
LML	Rate 27	Fixed	Basic Charge	827.000
LML	Rate 27	Variable	Delivery Charge	0.931
LML	Rate 27	Variable	Rider 3	-0.034
LML	Rate 27	Variable	Rider 4	-0.006



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**27.0 Reference: Exhibit B-2, Tab 4, Forecast Methodology, p.10**

27.1 Based on the factors listed in Section 12 "Forecast Risks" on page 10, what is the maximum negative variation from forecast that Terasen would anticipate for 2009?

**Response:**

Terasen Gas has not projected maximum variations from forecast based on the "Forecast Risks" listed in Section 12.



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**28.0 Reference: Exhibit B-2, Tab 4, Forecast Methodology, pp.4, 14, and 14.1**

28.1 Based on the factors listed in Section 12 "Forecast Risks" on page 10, what is the maximum negative variation from forecast that Terasen would anticipate for 2009?

**Response:**

Terasen Gas has not projected maximum variations from forecast based on the "Forecast Risks" listed in Section 12.

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**29.0 Reference: Exhibit B-1, Section B-5, Appendix A, Annual Review of Compliance with the Terasen Gas Inc. Code of Conduct and Transfer Pricing Policy, p. 2**

The fourth bullet under "Approach" states "Review evidence of such processes and controls and compliance with the Policies."

29.1 Please describe the evidence that was examined, and the approach used, in order to determine code of conduct and transfer pricing compliance.

**Response:**

**Evidence Examined:**

The following information was reviewed:

- Accounting records to reflect the terms and conditions as specified in the agreed upon contract, i.e. related journal entries, labor details, employee timesheets, invoices, inter-company bank transactions.

**Approach Used:**

Our review was made in accordance with Canadian generally accepted standards for review engagements. Our review did not constitute an audit and thus did not express an audit opinion.

Our approach consisted of either enquiry, performing analytical procedures or discussion of compliance with each of the provisions within the Code of Conduct (CoC) and the application of the Transfer Pricing Policy (TPP).

Appropriate evidence was reviewed to determine if the CoC and TPP was reflected consistently as outlined in the terms and conditions of contracts between Terasen Gas Inc. and non-regulated businesses and properly accounted for in the accounting records.

29.2 What was the total value of TGI contracts for services to non-regulated businesses ("NRBs") during 2007?

**Response:**

The total value of TGI contracts to non-regulated businesses during 2007, for both Specific Committed (\$510,784) and As Required services (\$54,841) was \$565,625.

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"A Specific Committed Service contract between Terasen Energy Services and Terasen Gas has "as-required" pay terms for specific work performed outside of the Committed Service contract."

29.3 What was the value of "as required" work performed for Terasen Energy Services during 2007?

**Response:**

"As required" work performed for Terasen Energy Services during 2007 totaled \$54,841 and is included in the amount reported in the response to BCUC IR 1.29.2 above.

"Accounting was not invoicing according to the terms of the contract. As a result, the total amount of \$78,324 (2006 - \$25,152; 2007 - \$53,172) has not been billed as at the end of August 2008."

29.4 Please clarify whether the under-billing was due to the absence of billing or the application of incorrect rates.

**Response:**

The under-bill was due to the absence of billing, an unintentional oversight on the part of TGI.

29.5 How many employees were engaged in the activities associated with the figure of \$78,324 quoted above?

**Response:**

There was only one TGI employee involved in providing the propane procurement and management activities associated with the \$78,324 billing charge. Upon review, the one employee spent considerably less time (i.e. approximately 75 person hours per year) than that inferred by the charge calculated using the per GJ methodology. As a result, the agreement has been revised for 2008 to reflect the actual lower level of support required.



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29.6 Will the eventual recovery of the non-billed amounts include interest?

**Response:**

The recovery of the non-billed amounts does not include interest. It was an unintentional oversight on the part of TGI to not have billed on a timely basis for the services delivered to Terasen Energy Services.

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### 30.0 Reference: Capital Expenditures and Plant Additions

#### Exhibit B-1, Section A, Tab 3, p. 5

30.1 Please provide an explanation of the level of expenditures compared to the approved level and the status for the Mission IP Pipeline System Upgrade.

#### Response:

Line 4 – Customer Addition Driven Capital Expenditures: The 22.6% variance between Approved 2008 and Adjusted 2008 expenditures is attributed to a 22.6% decrease in the forecast number of customer additions.

Line 5 – Other Base Capital Expenditures: The 0.5% variance between Approved 2008 and Adjusted 2008 expenditures is attributed to a 0.5% decrease in the forecast average number of customers.

Line 10 – Vancouver LP Replacement: The \$0.4 million variance with this project is mainly due to the deferral of work from 2007 to 2008. The overall project costs are anticipated to be less than the amount approved by the Commission. An update is provided in the third quarter progress report.

Line 14 – MobileUp Replacement CPCN: Please refer to Section B-6 for a detailed discussion of this project including an explanation for the variance.

Line 15 – Fraser River SBSA Rehabilitation: The variance is mainly attributed to certain activities initially planned for 2008 being deferred to 2009.

Current work for the Mission IP Pipeline System Upgrade involves two upcoming projects: installation of a seismic shutoff valve and pipeline relocation at the north end of Mission Bridge. The design has been completed for the Seismic Shutoff Valve and materials have been ordered with assembly anticipated in 2009 due to long delivery and fabrication. Preliminary site research and design has been completed for the Pipeline Relocation project. Detailed design, procurement of materials, and installation is anticipated in 2009. The costs for these projects will be reflected in regular capital expenditures and will not appear as a CPCN expenditure.

30.2 Has TGI considered delaying or revising the CIS project to lower expected expenditures considering economic conditions?

#### Response:

The Company, at this time, does not think the current economic conditions will result in the need substantially delay or revise the project. The CIS project is intended to better position TGI to respond to current market conditions and prepare TGI for the future. A



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primary objective is to provide a technical platform that enables flexibility to respond to changes in the business environment and customer expectations. It is expected that the new system would be implemented in 2012. Any delays in the project would push this to a later timeframe and impact the Company's ability to respond to market change.



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**31.0 Reference: 72nd Street IP, Delta (TGI 2007 Annual Review for 2008 Revenue Requirements**

**Exhibit B-1, Section B-1, p. 6)**

31.1 How many greenhouses signed up to take or pay contracts as system improvements were only to be installed if greenhouses converted some or all of their interruptible load to firm load.

**Response:**

No greenhouses have signed up to take or pay contracts and no system improvement have been installed.

31.2 What is the status of this project and what expenditures have been made?

**Response:**

There has been no new progress with this project and no expenditures have been incurred.



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**32.0 Reference: Exhibit B-1, Section A-4, Customer Additions Forecast, p. 4**

32.1 Of the 8,012 expected new Residential customers in 2009, how many does TGI expect to be Single Family Dwellings and how many are expected to be Multi-Family Dwellings?

**Response:**

TGI does not forecast residential building types separately, however it would not be unreasonable to assume approximately 75-95% of residential customer additions would be single family dwellings. Although there has been a shift in housing type towards more multi-family dwellings, there are many townhouse developments and also apartment-style buildings that are provided natural gas service through a common meter. In situations where a common meter services a multi-family building, they would be connected as either a commercial or industrial rate class.

32.2 Other than lower housing starts, are there other reasons why customer growth is lower in 2008 and 2009 compared to 2007?

**Response:**

There are two main reasons for the lower customer growth being projected for 2008 and 2009 compared to 2007, and those are housing starts and customer turnover. Housing starts, as forecast by the CMHC, are projected to decline in 2008 and 2009 from the peak levels seen in 2007. At the same time, as stated in Section A-5, p.4, Terasen has observed an increase in customer turnover since 2007, and without any evidence to suggest otherwise, this trend is projected to continue into 2008 and 2009. Although changing market conditions are also a factor that can affect customer additions, those same market conditions are assumed to affect housing starts, and therefore by modeling customer additions to housing starts, changing market conditions are also incorporated.



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### 33.0 Reference: Exhibit B-1, Section B-3, Cost of DSM Programs, p. 13

The Summary table on page 13 shows the results for 6 DSM Programs.

33.1 What are the forecast costs associated with each of the programs listed for 2009?

#### Response:

As noted in the response to BCUC IRs 1.20.1 and 1.20.2, in the absence of a decision on the Terasen Utilities' EEC Application, it is difficult for the Company to provide a meaningful forecast of these costs at this time.

33.2 What were the actual costs associated with each of the programs listed for 2007 and 2008?

#### Response:

The table below shows incentive and program amounts associated with each of the programs for 2007 and 2008. Labour, planning and evaluation and general administration are not included in the figures provided below.

Year	2007		2008 YTD	
Program Name	Incentive Amount	Program Amount	Incentive Amount	Program Amount
Energy Star Heating Upgrade	\$ 381,250	\$ 186,350	\$ 747,250	\$ 507,339
New Construction Energy Star Heating Program	\$ 1,026,000	\$ 2,617	\$ 434,000	\$ -
Efficient Boiler Program	\$ 297,542	\$ 4,800	\$ 78,000	\$ 23,000
EnerChoice Fireplace Pilot Program	\$ -	\$ 31,432	\$ 25,000	\$ 72,000
Destination Conservation	\$ -	\$ 67,500	\$ -	\$ 72,000
Commercial Energy Utilization Advisory	\$ -	\$ 14,533	\$ -	\$ 106,167
General Education and Outreach Activity	\$ -	\$ 183,366	\$ -	\$ 337,617
Community Energy Planning Participation	\$ -	\$ 12,175	\$ -	\$ 10,000
Totals	\$ 1,704,792	\$ 502,773	\$ 1,284,250	\$ 1,128,123

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33.3 For each of 2008 actual and 2009 forecast DSM expenditures, what percentage of gross revenues do they represent?

**Response:**

The figures provided for 2008 in the table provided in response to BCUC IR 1.33.2 above are year-to-date and do not include labour, general administration and planning and evaluation. It may therefore be more useful to consider the TGI DSM budget of \$3.124 million as a percentage of gross revenue. Projected gross revenue for 2008 is \$1.7 billion, thus available 2008 DSM budget as a percentage of gross revenue is 0.18%. As noted in the responses to BCUC IRs 1.20.1, 1.20.2 and 1.33.1, in the absence of a decision on the EEC Application, the Company is unable to provide forecast costs at a detailed program level regarding the DSM budgets for 2009. Information about EEC funding requested as a percentage of gross revenue can be found in the response to BCUC IR 1.16.3.1 (Exhibit B-2) to the TGI-TGVI EEC Application.

33.4 What is TGI's target DSM expenditure in terms of percentage of gross revenues?

**Response:**

TGI has not established a target DSM expenditure in terms of percentage of gross revenues, as the Company is of the view that this is an arbitrary method of determining a target DSM expenditure that could lead to DSM expenditures that are too low to capture all the available conservation, or too high to be effectively spent. Instead as detailed in Section 6.2 of the TGI-TGVI EEC Application (Exhibit B-1), the companies prefer to build DSM expenditure budgets "from the ground up".



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### 34.0 Reference: Exhibit B-1, Section B-3, Savings Targets, p. 13

34.1 Please show how each of the six listed DSM programs performed versus their savings targets, for 2007.

#### Response:

Energy savings are a function of the number of participants in a program multiplied by the energy saving per participant. Energy savings per participant were detailed in the table on Page 13 (Exhibit B-1, Section B-3), therefore the Company suggests that it might be more reasonable to look at projected vs. actual numbers of participants for each program in terms of energy savings. Please see the table below, which shows target versus actual program participation for 2007 and 2008.

	2007		2008	
Program Name	Projected Number of Participants	Actual Number of Participants	Projected Number of Participants	Actual Number of Participants YTD
Energy Star Heating System Upgrade	4,316	4,854	3,300	1,989
Fireplace Pilot Program	n/a	n/a	625	207
Efficient Boiler Program	20	55	8	4
Destination Conservation	44	45	40	18
Commercial Energy Utilization Advisory	100	111	120	47

Notes to 2008 YTD figures:

- It should be noted that the Energy Star Heating System Upgrade figures are actual participants to August 2008.
- Anecdotal evidence suggests that for the Fireplace Pilot Program, there are a large number of application forms are being batched and held back by program participants until the program ends.
- It is anticipated that re-opening the Efficient Boiler Program to boilers for existing buildings (retrofits) will result in strong participation.

34.2 Please show how each of the six listed DSM programs performed versus their savings targets, for year-to-date 2008.

#### Response:

Please see the table provided in response to BCUC IR 1.34.1 above.



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**35.0 Reference: Exhibit B-1, Application, Section B-3, 2008 DSM Status Report, p. 13**

35.1 For each of the DSM programs listed on Application, Section B-3, p. 13, please provide a schedule showing the Rate Impact Measure net cost/ benefit.

**Response:**

Please see the table below, which details the RIM results by program. It is the Company's strong belief that the primary test used to evaluate DSM programs should be the TRC test, rather than the RIM test, as the TRC test offers the benefit of scope in that it considers total costs and total benefits, and gives a view of the impact of the program from the perspective of the energy system in the Province as a whole, rather than just giving a view from the perspective of the Ratepayer. Further, the TRC can take into account externalities such as non-energy benefits, although the Company has not included any of these externalities in the benefit-cost analyses performed for this Annual Review.

Program Name	RIM Result	RIM Net Benefit (Cost)
Energy Star Heating System Upgrade	0.46	(\$1,527,378)
Energy Star Heating System Upgrade No VSM	0.41	(\$2,288,392)
Fireplace Pilot Program	0.43	(\$140,702)
Efficient Boiler Program	0.73	(\$245,017)
Destination Conservation	0.68	(\$122,564)
Commercial Energy Utilization Advisory	0.91	(\$197,351)

35.2 Using a Free Rider Rate of 25 percent, please recalculate the RIM result, Participant Result, TRC Result, TRC Net Benefit and Rate Impact Measure net cost/benefit for the Energy Star Heating System Upgrade program.

**Response:**

Please see the table below.



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Program Name	Free Rider Rate (%)	RIM Result	Participant Result	TRC Result	RIM Net Benefit (Cost)	TRC Net Benefit
Energy Star Heating System Upgrade	25	0.60	5.20	1.89	(\$1,123,372)	\$792,119
Energy Star Heating System Upgrade No VSM	25	0.54	5.20	1.42	(\$1,781,709)	\$620,601

**36.0 Reference: Exhibit B-1, Section A-4, Customer Counts and Use Rates, p. 10**

"Customer counts and use per customer rates adjusted to reflect actual results to June 2008."

36.1 Please provide a table showing the customer counts and use-per-customer rates as of June 2008, by Tariff Rate.

**Response:**

The following table illustrates the number of customers and use per customer rates, by Tariff Rate. The use per customer rates are based upon actual volumes (not normalized) from the period January 1, 2008 through June 30, 2008.

	Total Customers as of end of June 2008	Use per Customer (GJs) during the 6 month period - Jan to Jun 2008
Rate1	742,755	59
Rate2	74,523	206
Rate3	4,716	2,130
Rate23	1,340	2,909
Rate4	40	5,709
Rate5	283	6,281
Rate6	30	1,547
Rate22	24	277,771
Rate22 Bypass	11	498,301
Rate22A	10	352,811
Rate22B	5	277,480
Rate25	584	12,595
Rate25 By	7	85,242
Rate27	98	30,455
Rate7	2	3,445

36.2 What is TGI's target DSM expenditure in terms of percentage of gross revenues?

**Response:**

Please refer to the response to BCUC IR 1.33.4.

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### 37.0 Reference: Affiliate Transactions

37.1 Please provide a list of personnel (with position) that are both TGI employees and Fortis Inc. or Fortis affiliate employees. Please explain the nature of the relationship and the costing methodology and amount.

#### Response:

David C. Bennett is an employee of FortisBC and serves as Vice President & General Counsel and Corporate Secretary to Terasen Inc. and Terasen Gas Inc. Mr. Bennett's costs are recovered from Terasen Inc. by FortisBC pursuant to its regulatory requirements. Legal services provided by Terasen Inc. to Terasen Gas Inc. are covered under the management services agreement between Terasen Inc. and Terasen Gas Inc.

37.2 Please provide a detailed schedule of shared services with Terasen Gas (Vancouver Island) Inc. and Terasen Gas (Whistler) Inc. for 2007, and 2008.

#### Response:

The total shared services costs – direct and allocated, between TGI and TGVI for 2007 actuals and 2008 forecast were set in accordance with the Shared Services Management Report dated May 31, 2004 which was approved in Commission No. G-112-04.

	<b>2007 Total</b>	<b>2008 Total</b>
Allocation of Shared Services Costs	4,779,745	4,485,967
Direct OPEB Costs	323,978	302,028
Direct Timesheet based Charges to O&M	78,650	195,400
<b>Total Shared Services Costs - Direct and Allocated</b>	<b>\$ 5,182,373</b>	<b>\$ 4,983,395</b>

There were no shared services between TGI and TGW for 2007 or for 2008.



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37.3 Please provide a schedule of charges and recoveries between TGI and non-regulated businesses for 2007 and 2008.

**Response:**

The following schedules summarize charges and recoveries between TGI and non-regulated businesses (NRB) for 2007 actual and 2008 budget.

	2007	2008
<b>Charges to NRBs under Continuing Services Contracts from TGI:</b>		
Terasen Energy Services	154,253	140,980
Terasen Energy Marketing Inc.	210,238	-
Inland Energy Corp.	2,207	2,078
Terasen Huntingdon Inc.	55,852	57,126
Terasen Inc.	143,076	190,864
	<b>\$ 565,626</b>	<b>\$ 391,048</b>

<b>Other charges to NRBs from TGI:</b>		
Terasen Inc. - IT and facilities management fee	336,810	747,526
Kinder Morgan Canada Inc. - payroll management fee	129,800	-
	<b>\$ 466,610</b>	<b>\$ 747,526</b>

<b>Charges from Non-Regulated Businesses to TGI:</b>		
Terasen Inc.	8,535,000	8,535,000
Inland Energy Corp.	8,710	9,900
	<b>\$ 8,543,710</b>	<b>\$ 8,544,900</b>

37.4 Please provide a schedule of charges and recoveries between TGI and Terasen Inc. for 2007 and 2008.

**Response:**

Please refer to the response to BCUC IR 1.37.3 above.

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### 38.0 Reference: B-1, Section B-7, p. 2 Olympic Security Expenses

"To meet the Vancouver Olympic Committee ("VANOC") and international and government security agencies requirements, Terasen Gas has initiated the planning process to begin preparations for increased security".

38.1 Please provide details on steps Terasen Gas has taken to plan for the 2010 Winter Olympic and Paralympic Games.

#### **Response:**

Terasen Gas has prepared an Operational Response Plan ("the Plan") for the Greater Vancouver, Richmond and Whistler service areas that speaks to asset risk-related considerations of the 2010 Olympic & Paralympic Games. Terasen Gas facilities may be located in Olympic venues and/or Community celebration sites. This results in requirements for additional protection, monitoring, inspection, and review of assets that will be vulnerable due to their close proximity to Olympic events and crowds.

In each situation examined as part of the Plan, the severity and consequence of a natural gas emergency is being evaluated, in relation to the response that the Utility provides currently, during "normal" times when site access, transportation routes, and huge numbers of spectators are not a concern.

The Plan reflects our most current understanding of 2010 activities per regular meetings with Vancouver Olympic Committee ("VANOC"), and addresses activities both during the Olympic and Paralympic games from January 12 - March 31, and the "ramp up" period to the start of the Games. The Plan includes ongoing monitoring of asset condition during the Games, response strategies to diagnosis of natural gas concerns, and evacuation of structures, if required. To this end, isolation strategies have been developed for each affected site.

The existing Terasen Gas Emergency Plan will form the core for the 2010 Plan. Terasen Gas has opted to reinforce the current emergency response platform to a heightened level, so that any concerns requiring an escalated state of response can be activated very quickly.

Terasen Gas is an active participant in the Provincial Emergency Exercise program that has been developed by Emergency Management BC, in concert with all local communities and authorities, and will integrate any resulting best practices into the Plan. Emphasis will be placed on the coordination of internal and external communications between Emergency Operations Centres. Protocols, processes and equipment will all be encompassed by this detailed review.

Terasen Gas has sought RCMP Integrated Securities Unit ("ISU") input in planning asset considerations and employee assignment to sites. Preparatory work has been mapped against existing asset protection and/or security protocols, to ensure prudence with respect to managing the risks associated with this event. Security briefs delivered to Terasen Gas from local, provincial, and federal authorities are being integrated into the Plan as received. Terasen Gas has also held discussions with Questar Gas

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counterparts who constructed a Response Plan for the Salt Lake City Games, to learn from another gas utility's experiences, and to integrate best practices into the Plan.

In detailed discussion with VANOC Committees and the ISU, Terasen Gas has a detailed understanding of the timing and nature of events to be held during the 27 days of 2010 activities. Terasen Gas has determined where in its system additional asset protection strategies must be employed. Specific vulnerability assessments will address risks to Distribution and Transmission assets, in concert with existing Asset Integrity guidelines under which the utility operates. Furthermore, Terasen Gas is part of a Utility Committee that will meet regularly with VANOC, to ensure that all utility service providers to the Games receive the same information.

38.2 Please provide a detail breakdown of TGI's portion by resource code for the incremental cost of 2010 Olympic Games initiative which is forecast to be \$0.7 million in 2007 and \$2.7 million in 2010.

**Response:**

Please note a typographical error appears in the year referenced in the question, it should be 2009 rather than 2007. "...2010 Olympic Games initiative which is forecast to be \$0.7 million in 2009...". A detailed breakdown of TGI's portion by resource view is presented below:

Particulars	2009	2010
M&E Costs	\$78,320	\$211,464
COPE Costs	9,790	0
IBEW Costs	36,810	1,822,722
<b>Labour Costs</b>	<b>\$124,920</b>	<b>\$2,034,186</b>
Vehicle Costs	13,510	14,685
Employee Expenses	0	26,433
Materials	207,059	0
Contractor	352,440	576,337
Facilities	48,950	0
<b>Non-Labour Costs</b>	<b>\$621,959</b>	<b>\$617,455</b>
<b>Total Costs</b>	<b>\$746,879</b>	<b>\$2,651,641</b>

The costs include a significant labour component. All Terasen Gas staff serving the 2010 Games will be asked to take part in security validation checks which will ensure that site/venue entry will be unencumbered, and the diagnosis and remediation of any concerns related to natural gas can be addressed promptly.



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38.3 Please explain if any of these security expenditures are capital in nature.

**Response:**

It is anticipated that a minimal amount, less than 5%, of the expenditures are capital in nature, consisting of meter cages, protection posts, lockout valves and security cameras.

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### 39.0 Reference: B-1, Section B-7, p. 5-7 Rate-Regulated Operations

On page 6 it states, "Report on Estimate of Rate Impact for Changes in Canadian Generally accepted Accounting Principles ("GAAP") effective January 1, 2009 – Future Income Tax Liability Report", the recovery of income taxes for regulatory purposes remains on the taxes payable method in this Annual Review submission."

- 39.1 Please file the June 30, 2008 Report on the accounting change impact to TGI's financial statements presentation for 2009 and provide the regulatory options for the utility, based on Order G-153-07, paragraph 2.6 which states "CICA Handbook Changes --Estimate of Rate Impact for Changes in Canadian Generally Accepted Accounting Principles ("GAAP") related to Future Income Tax Liability effective January 1, 2009?"

#### **Response:**

Please refer to Attachment 39.1.

- 39.2 In regards to the June 30, 2008 Report please answer the following questions:

- 39.2.1 On page 3 of the report, under the heading, Impact of CICA Handbook Guidance on TGI Financial Statements, it states "Adjustments relating to unrecognized future income taxes – 1) an increase in Rate Regulated Assets of approximately \$245 million and 2) offsetting increase in Future Tax payable of approximately \$245 million". Please show the calculation of how \$245 million was determined?

#### **Response:**

The calculation is based on the difference between the book value and the tax value of the PP&E balances, calculated at the rate expected to be in place at the time the differences will reverse. This amount is then grossed up to reflect the fact that the balance itself creates another book value to tax value difference. This amount was rounded up to \$245 million for discussion purposes.

Book Value	Tax Value	Difference	Tax Rate	FIT	Grossed Up
2,322,481	1,629,372	693,109	26%	180,208	243,525

- 39.2.2 Under the heading, Adjustments relating to removing net-of-tax presentation from deferral accounts, please provide calculations of how the following were determined and what entries are required for the following:

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### 39.2.2.1 An increase in Current portion of Rate Stabilization Accounts of approximately \$30 million

#### **Response:**

This represents the amount of future income taxes embedded in the Current Portion of Rate Stabilization Accounts in the 2007 financial statements. This amount would need to be reclassified to Future Income Tax Liabilities for financial statement presentation. The calculation is the \$61.1M balance at the embedded rate of 33%. The entry is: DR Current portion of Rate Stabilization Accounts and CR Future Income Tax Liability.

### 39.2.2.2 An increase in Rate Stabilization of approximately \$6 million.

#### **Response:**

This represents the amount of future income taxes embedded in the Rate Stabilization Accounts in the 2007 financial statements. This amount would need to be reclassified to Future Income Tax Liabilities for financial statement presentation. The calculation is the \$11.8M balance at the embedded rate of 33%. The entry is: DR Rate Stabilization Accounts and CR Future Income Tax Liability.

### 39.2.2.3 A decrease in Other Assets (rate regulated deferral accounts) of approximately \$8 million.

#### **Response:**

This represents the amount of future income taxes embedded in the Other Assets in the 2007 financial statements. This amount would need to be reclassified to Future Income Tax Liabilities for financial statement presentation. The calculation is the total of the Residential Unbundling costs of \$8.6 million, the Replacement transportation agreement of \$1.3 million, the Commercial commodity unbundling costs of \$1.2 million, and the Other items approved for recovery in rates that are net-of-tax of \$5.0 million (total balance of \$16.1 million) at the embedded rate of 33%. This calculated amount is then decreased by the Income taxes recoverable on post-employment benefits (\$15.5 million) for a net decrease of \$8 million. The entry is: CR Other Assets and DR Future Income Tax Liability.

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39.2.2.4 An increase in Property, Plant & Equipment of approximately \$14 million relating to Class 12 capital assets.

**Response:**

This represents the net book value of the Software Tax Savings embedded in the PP&E schedule. This amount represents FIT on the software and needs to be reclassified accordingly. The entry is: DR PP&E and CR Future Income Tax Liability.

39.2.2.5 An offsetting increase in Future Income Taxes Payable of approximately 34 million.

**Response:**

This amount is calculated as the total of all the lines above, and should have shown as \$24 million, not the \$34 million shown (\$30 million plus \$6 million less \$8 million plus \$14 million less \$18 million long-term liabilities in the report but not shown above = \$24 million).

39.2.3 Under the heading Regulatory Treatment on page 3-4, please provide examples for each of the three options that are described in the report using December 2007 balances showing the impact on rate base in Years 1 and 2 for the following:

- 39.2.3.1 Current Portion of the Rate Stabilization Accounts
- 39.2.3.2 Rate Stabilization Accounts
- 39.2.3.3 Other Assets (rate regulated deferral accounts)
- 39.2.3.4 Other Long Term Liabilities and Deferred Credits
- 39.2.3.5 Property Plant & Equipment

**Response:**

There would be no impact on rate base in any of the three options discussed above, since all of these amounts are already included in rate base, and these are reclassification entries only.



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**40.0 Reference: Exhibit B-1, Section B-7, p. 3 International Financial Reporting Standards ("IFRS")**

40.1 The forecast expenditures on project resources, training, consulting and other are expected to be \$278,000 for 2008 and \$263,000 for 2009. Please explain how the 25 percent allocation of these costs to Terasen Inc. and Non-Regulated was determined?

**Response:**

Due to the unique nature of the IFRS project, it was anticipated that the costs could not follow the standard allocation methodology. The allocation of costs was determined by:

Assigning a utility percentage to each standard based on the dollar value of utility vs. non-utility assets or liabilities relevant to that standard. For example, to determine the percentage for IAS 16 Property, Plant & Equipment, the total Utility Property, Plant & Equipment was divided by the total Terasen PP&E.

Each standard was then assigned a difficulty weighting from 1 to 10, to reflect the relative effort that would be invested in that standard.

The utility allocation was then derived by multiplying the utility percentage by the weighted average difficulty rating, resulting in 75% utility or 25% non-utility.

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IFRS Utility Cost Allocation	Utility %	Difficulty	Utility
	Allocation	Weight	Alloc
IAS 16 Property Plant & Equipment	95	10	9.5
IAS 23 Borrowing Costs	90	7	6.3
IAS 40 Investment Property	0	1	-
IAS 36 Impairment of Assets	95	8	7.6
IAS 37 Provisions, Contingent Liabilities & Contingent Assets	95	8	7.6
IAS 38 Intangible Assets	95	8	7.6
IAS 12 Income Taxes	75	5	3.8
IAS 19 Employee Benefits	95	8	7.6
IFRS 3 Business Combinations	0	2	-
IAS 1 Financial Stmt Presentation	50	5	2.5
IAS 21 Changes in FX Rates	50	1	0.5
IAS 2 Inventories	100	1	1.0
IAS 11 Construction Contracts	100	2	2.0
IAS 28 Investments in Associates	0	1	-
IAS 31 Investments in Joint Ventures	0	1	-
IAS 18 Revenue	95	7	6.7
IAS 17 Leases	100	7	7.0
IAS 34 Interim Financial Reporting	50	1	0.5
IFRS 2 Share-based Payments	0	3	-
IFRS 1 First Time Adoption	95	8	7.6
IAS 7 Cash Flow Statements	70	2	1.4
IAS 27 Consolidated Financial Statements	0	3	-
IFRS 9 Operating Segments	0	3	-
IAS 32, 39, 7 Financial Instruments	75	7	5.3
IAS 8 Changes in Accounting Policies, etc.	70	3	2.1
IAS 10 Events After the B/S Date	70	2	1.4
IAS 24 Related Party Disclosures	70	2	1.4
IAS 33 Earnings per Share	0	3	-
		119	89.3
Final Allocation			75%

40.2 The forecast expenditures for consulting by asset and depreciation specialists are expected to be \$15,000 for 2008 and \$75,000 for 2009. The forecast expenditures on system changes are expected to be \$112,000 for 2008 and \$372,000 for 2009. Please explain why Terasen Inc. will receive no benefit from the system changes and is not allocated a portion of these costs.

**Response:**

Terasen Inc. has not received an allocation of the anticipated system changes costs since the analysis of the changes that will be required to SAP to accommodate IFRS

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indicate that the changes are all in the Asset Management module, for Property, Plant & Equipment, or for the ongoing maintenance and reconciliation of two sets of books, which may be required for utility rate-making purposes. Those changes are not applicable to the parent company, Terasen Inc.

40.3 In the Media Release on February 8, 2008, the CICA has prepared a special document titled "20 Questions Directors and Audit Committees Should Ask About IFRS Conversions", as indicated in the website [http://www.cica.ca/index.cfm?ci\\_id=43008&la\\_id=1](http://www.cica.ca/index.cfm?ci_id=43008&la_id=1). Please explain the initiatives undertaken by TGI to prepare the transition and please respond to the questions below.

The Questions are listed as follows:

**Conversion project considerations:**

1. What will converting to IFRS mean to our business?

**Response:**

Converting to IFRS will have a significant impact on the financial function of the business which is responsible for preparing the company's financial statements and other financial information. Other groups impacted by financial information will also be affected. These include Regulatory, Internal Audit, Senior Management, the Board of Directors and Committees of the Board. Also see Question 12.

2. How do we plan to approach the conversion of IFRS?

**Response:**

A project team has been established which includes senior financial management and hands-on technical expertise from all Fortis companies.

An IFRS Conversion Plan outlining the Company's conversion approach has been developed and provided to the various audit committees within the Fortis group.

3. What are the key areas that need to be addressed during conversion?

**Response:**

The key areas to be addressed during conversion are:

- Financial statements

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- Regulatory accounting
- Accounting resources
- Financial risk management
- Debt covenants and financing
- Budgets and forecasts
- Income tax
- Audit & Risk Committee knowledge
- Training & education
- Compensation plans
- Internal control systems

4. What is the timeline for our IFRS conversion project, what resources will be required and how much will it cost?

**Response:**

Terasen Inc.'s conversion plan will be executed in three phases as follows:

Phase 1	Scoping & Diagnostics	December 2007 to March 2008
Phase 2	Analysis & Development	February 2008 to March 2010
Phase 3	Implementation & Review	June 2009 to March 2012

Phase 1, which has been completed, consisted of project initiation and awareness, identification of high-level differences between IFRS and Canadian GAAP and project planning and resourcing.

Phase 2, currently underway, consists of detailed diagnostics and evaluation of the financial impacts of various options and alternative methodologies provided for under IFRS, identification and design of operational and financial business processes, and development of required solutions to address identified issues.

Phase 3 will involve building, implementing and communicating the changes required to report IFRS compatible information beginning in 2010 and the associated impacts.

For Terasen Inc., required resources include the sponsorship of the CFO, a project manager, a full-time accounting resource and a part-time accounting resource. In addition, participation from each of the impacted areas of the business will be required, and IT resources during the development and implementation phases. Consulting resources will be required in some of the more technical areas.

The incremental costs of the project are estimated in excess of \$1.5 million over four years, composed of resource costs, tax, legal and technical accounting consulting costs, costs related to changes to depreciation studies and actuarial estimates, training costs, and IT-related costs.

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## 5. What can we learn from the European Union conversion experience?

### **Response:**

The European Union (EU) experience provides some insight into controlling project costs. In October 2007, The Institute of Chartered Accountants of England & Wales issued a report for the European Commission on the EU Implementation of IFRS. The report indicates that the cost to EU companies of implementing IFRS varied extensively, and that smaller companies bore proportionately higher costs than larger companies as they were less prepared and relied more heavily on external consultants. The report also notes that companies who participated in the study, in general, felt that they could have significantly reduced their implementation costs by:

- Training staff better;
- Starting the transition project soon;
- Making a good initial assessment of the impact;
- Managing the project better; and
- Communicating better with subsidiaries.

Other lessons learned:

- The conversion timeline should be detailed and realistic;
- Consider other implications carefully (tax, loan covenants, external valuations, IT systems, controls over conversion);
- Training, recruitment and retention of personnel are key;
- Importance of communication with, and education of, financial statement stakeholders;
- Ability to distinguish business reality from accounting policy changes.

### **Financial reporting considerations:**

## 6. How will converting to IFRS impact external financial reporting in our organization?

### **Response:**

The look and feel of the Terasen group of companies' (the "Terasen Group") financial statements will change. Some practices permitted by Canadian GAAP will be prohibited

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and some practices prohibited by Canadian GAAP will be permitted. Some forms of aggregation or measurement permitted by Canadian GAAP will be prohibited, and some forms of aggregation or measurement required by Canadian GAAP will no longer be necessary. There will likely be increased earnings volatility. Additional disclosure, particularly regarding assumptions made and options chosen, and increased prevalence of continuity schedules, will be required in the notes to the financial statements.

The impacts on the Terasen Group, and more specifically the Terasen Gas utilities' statements are still not clear due to the lack of certainty around Rate Regulated Operations. Currently, the IFRIC has recommended that the issue of rate regulated assets and liabilities be added to the IASB agenda. The outcome of these discussions and decisions will have a material effect on the Terasen Group's financial statements.

7. What will be the impact on management reporting?

**Response:**

To the extent that there are changes to the external financial reporting, other than those of a merely disclosure nature, those changes will be reflected in management reporting. IFRS will impact budgets, forecasts, performance measures and debt covenants.

Also see response to Question 12.

8. How will management address the need for 2010 financial information prepared by both GAAP and IFRS?

**Response:**

The Company will continue to report and file its 2010 financial statements under Canadian GAAP. Data gathering and collection during 2010 will be done in parallel based on both Canadian GAAP and IFRS. Conversion activities in 2010 and 2011 will consist mostly of parallel data collection and reporting, preparation of the necessary reconciliations and disclosures required to be filed in 2011.

9. What are our competitors and industry peers doing?

**Response:**

All companies within the Fortis group are following the same IFRS Conversion Plan. This is a best practices approach with guidance provided by Deloitte & Touche LLP.

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The Fortis group is also working closely in conjunction with other Canadian gas and electric utilities through participation in IFRS sub-committees of the Canadian Gas Association (CGA) and the Canadian Electricity Association (CEA).

10. Will publicly accountable enterprises be required to apply throughout their group structures?

**Response:**

IFRS will be applied as consistently as possible by all companies within the Fortis group, where differing regulatory rules allow.

11. How will IFRS impact tax reporting and tax filings?

**Response:**

Although CRA has been silent on adopting IFRS, it is anticipated that IFRS compliant financial statements will be acceptable for tax filings, and that there will be limited impact on cash tax payments.

IAS 12 – Income Taxes has been identified as having a "high impact". In order to meet the requirements of IAS 12 the company has identified that it will have to measure and report all assets and liabilities in accordance with IFRS, make IFRS adjustments to assets and liabilities, calculate deferred tax relating to those adjustments, and draft increased IFRS disclosure requirements.

**Non-financial reporting considerations:**

12. Other than financial reporting, which other business areas will be impacted by the conversion?

**Response:**

IFRS conversion may present unique challenges for Senior Management and other areas of the organization beyond the finance and accounting function. IFRS may impact accounting resources, treasury & risk management, debt covenants and financing, budgets and forecasts, income and capital tax base, audit committee knowledge, M&A strategy, training & education, compensation plans, internal controls.

13. Can our current IT systems handle the business' revised data collection requirements under IFRS?

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**Response:**

SAP is being upgraded to version SAP ECC 6.0 prior to implementation of IFRS. That version of SAP will be able to handle the requirements of IFRS, including the potential requirement to maintain two sets of books.

14. What IFRS training programs are management planning to provide finance personnel?

**Response:**

Finance personnel involved in the project have been involved in intensive industry-focused training on IFRS standards. Other finance personnel have attended a training course at the Terasen Group offices providing an overview of relevant IFRS standards. Additional training for finance staff will occur closer to the transition date, and cover only those items that directly impact the Terasen Group.

**Other board considerations:**

15. What are the most significant risks associated with converting to IFRS?

**Response:**

The most significant risk associated with the conversion to IFRS is errors that result in misstatement of financial results. The Company's strong financial reporting and disclosure controls will serve to mitigate the risk of misstatement.

The project team will also continually assess the risks associated with the conversion throughout the project and take action to mitigate the risks as appropriate.

16. What are the other key risks associated with converting to IFRS?

**Response:**

Another key risk is associated with the possibility of having to maintain two sets of financial statements, one set for the financial markets and possibly a second set for reporting to the BCUC in relation to rate setting and monitoring the Terasen Gas utilities' returns.

Maintaining two sets of financial statements can create some confusion. Communication with the BCUC and the financial analysts in this regard will be critical to ensuring a smooth transition to IFRS. See also Question 18.

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17. How can our organization take advantage of the opportunities presented by the conversion to IFRS?

**Response:**

The Terasen Group will be reviewing its accounting practices and systems during the conversion to IFRS. In addition, the Terasen Group will be carefully reviewing IFRS accounting policy options for alignment with objectives.

18. How will converting to IFRS impact our stakeholders and what should be done to manage the expectations of capital markets?

**Response:**

The major stakeholders are Fortis Inc., the BCUC, Board of Directors, Audit Committee, customers, investment analysts and investors. All stakeholders use the Terasen Group's financial statements to monitor the financial results and to assess financial integrity.

*Fortis Inc.*

Each subsidiary within the Fortis group of companies reports its financial results to Fortis Inc. on a quarterly basis. Each subsidiary will have to adopt IFRS in its quarterly reporting. Having key financial resources from each subsidiary assigned to the Fortis Inc. IFRS conversion team provides assurance that Fortis Inc.'s financial reporting requirements will be met in accordance with the timelines established by the project team.

*BCUC and Customers*

The move to IFRS may impact the ability of Terasen Gas utilities to continue to recognize regulatory assets and liabilities in external financial statements as of 2011, however this is still uncertain. The need to be kept informed of IFRS developments and the Terasen Gas utilities ongoing plans in respect of these developments has been recognized by all Canadian utility regulators. The regulators are concerned about the potential substantive impacts of the changes being considered on both the utility and its customers. Accordingly, status reporting and consultations with the BCUC to monitor the transition to IFRS and assess the impacts of the transition on the regulatory process and the balancing of utility company and customer interests are key.

*Boards of Directors and Audit Committees*

Providing financial oversight and approving the Terasen Group's financial statements and disclosures before being issued to the market is the responsibility of audit committees and board of directors. Regular updates on the status of IFRS developments, the impacts on the Terasen Group, and financial literacy training will be provided to these groups throughout conversion to IFRS. An IFRS Oversight Timeline has been developed and is included in the Company's IFRS Conversion Plan.

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### *Communication*

Communication, both internal and external, will be emphasized throughout the conversion process. Internal communications will be required to ensure consistent understanding, education and resolution of critical issues. External communication will be required to ensure that investment analysts and investors understand and differentiate the changes in financial reporting resulting from IFRS implementation from those resulting from real changes in operations, financial position and profitability.

Communication requirements will be assessed on an ongoing basis and determined for all stakeholders as the project progresses.

19. What should the role of our auditor be in the conversion process, and do we need a third party advisor independent from our auditor?

### **Response:**

Following presentations and submissions by three external accounting firms, Fortis engaged Deloitte & Touche LLP (Deloitte) to provide guidance and advice during the IFRS transition. All companies within the Fortis group can avail themselves of the services of Deloitte as required.

20. Other than financial reporting integrity, what are the other implications for board of directors?

### **Response:**

The Board of Directors must ensure that it is sufficiently educated and knowledgeable about IFRS to enable them to fulfill their duties and discharge their responsibilities. The Board must monitor the conversion to IFRS to ensure the Terasen Group is ready to be audited by its external auditors in accordance with the timelines established by securities regulators.

40.4 Regarding International Financial Reporting Standards (IFRS) are there other potential changes (other than the deferral accounts) that TGI is aware of?

### **Response:**

Other main areas that have been identified are AFUDC, capitalized overheads, major inspections and overhauls, commencement of depreciation, group depreciation methods, customer contributions, asset retirement obligations, intangible assets included in PP&E, and employee future benefits.

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40.5 Please elaborate on the current accounting methods for deferral accounts currently allowed in the CICA Handbook.

**Response:**

Under current Canadian GAAP, Section 1100 Generally Accepted Accounting Principles contains an exemption for rate-regulated operations, which reads as follows:

*"Pending completion of a separate project on rate-regulated operations, an entity is not required to apply this Section to the recognition and measurement of assets and liabilities arising from rate regulation."*

Therefore, under the current GAAP exemption for rate-regulated operations, as long as there is regulatory deferral treatment for deferrals, the expenditures would be permitted to be deferred. Absent that exemption, we could look to Section 3064 Goodwill and Intangible Assets for guidance.

However, since Canadian GAAP will be silent on the specific issue of rate regulated assets and liabilities in 2009, we could also look to secondary sources of GAAP, specifically SFAS 71 Accounting for the Effects of Certain Types of Regulation. Under this section, deferral accounts would continue to be reflected in the financial statements as long as there was regulatory approval for those accounts.

## **Attachment 2.3**

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## FINANCIAL MARKETS MONTHLY

October 8, 2008

### Co-ordinated rate cut by major central banks

The Federal Reserve, Bank of England, Bank of Canada, ECB, Riksbank and Swiss National Bank all cut policy rates by 50 basis points in an unprecedented co-ordinated move on October 8. Heightened financial market stress that weighed on equity markets and saw LIBOR rates, a proxy for funding costs, spurt higher prompted policymakers to act in an effort to resurrect investor confidence and shore up the financial system. The numerous actions to-date by governments and central banks across the globe have elicited little joy but, given the magnitude and persistence of these interventions, we expect they will begin to ease strains in financial markets.

### Central banks to ease policy rates further

The immediate reaction to the co-ordinated central bank rate cut was cool, with global equity markets languishing and the cost of funding staying high. Persistent uncertainty kept investors focused on the safety of government bonds, resulting in interest rates on these securities remaining well below earlier forecasts. The IMF, in its semi-annual outlook, aggressively cut back the forecast for world GDP growth in 2009 to 3% from 3.9%, highlighting that “the downturn in the advanced economies is continuing to deepen”. The prospect of a lengthy and widespread economic downturn will likely prompt global central banks to shift policy rates to more stimulative levels and we look for most major economies we follow to lower policy rates further.

### Central bank near-term bias

#### Bias three-months out



The Bank of Canada cut the policy rate by 50 basis points on October 8. Our view that some of the stress in financial markets will ease going forward and that the domestic economy, while slowing, will keep the economy from falling into recession sets up for no further rate action.



The Fed is monitoring to see if recent actions curb financial market volatility and will likely cut the policy rate by another 50 basis points in order to shore up investor confidence and buttress the economy.



Another policy rate cut is in the pipeline given the gloomy tone in the economic data. With credit conditions continuing to tighten, the Bank of England is likely to ease again at its next policy meeting in November.



The ECB cut its policy rate by 50 basis points as part of the co-ordinated policy move, with an additional cut expected in December enroute to getting the policy rate down to a stimulative 2.50% next year.



Worsening domestic and global credit conditions saw the RBA slash the policy rate by 100 basis points, with further cuts likely ahead including another move before Christmas.



We expect further cuts from the RBNZ given the weakening global backdrop and domestic data that confirm recessionary conditions in New Zealand.

**Dawn Desjardins**

Assistant Chief Economist

416-974-6919

dawn.desjardins@rbc.com

## Highlights

▲ Central banks cut policy rates with the Fed, Bank of England, Bank of Canada, ECB, Riksbank and Swiss National Bank all easing by 50 basis points in collective effort to stem financial market stress.

▲ Recessionary conditions in the U.S. economy exist with the high cost of capital curtailing business and consumer spending.

▲ We expect the passage of the government's rescue plan will eventually result in the stabilization of funding markets and the cost of capital starting to ease.

▲ Economic data is taking a backseat to worries about the financial system.

▲ The Fed has turned attention back to interest rate policy and, with the economy gearing down ...

▲ ...will lower the funds rate to 1% before year-end.

## Economic data point to a U.S. recession

Economic activity data are increasingly suggesting that the U.S. economy has slipped into recession. Data reports have underperformed forecasters' modest expectations across the board with another month of slumping home sales and record price declines. September's labour market report was much weaker than expected with payrolls dropping. The ISM manufacturing report for September was also soft. The headline index dropped well below the 50-mark to 43.5, indicating sharply declining activity in the sector, while August consumer spending data showed a marked slowing in the third quarter as the impact from fiscal stimulus faded. The monthly reports signal that the U.S. economy likely contracted in the third quarter with a more marked weakening expected in the fourth.

## Chances of additional Fed rate cuts rise as recession talk increases

With conditions in the U.S. economy degenerating and the credit crisis intensifying, we see little scope for a meaningful improvement in near-term growth prospects. The Fed has been focusing on both providing liquidity to the financial markets and ensuring the passage of the rescue package, but the growing downside risks to the global economy prompted the Fed to join other banks in cutting the policy rate before its scheduled meeting later this month. Our forecast assumes that the passage of the US\$700 package and the co-ordinated rate cut will eventually assuage market nervousness and set the stage for a firmer tone in equity and debt markets. However, this process will take time to affect the real-side economy and is unlikely to prevent the economy from tipping further into recession. To address the deteriorating economic outlook, we expect the Fed to cut the Fed funds rate by an additional 50 basis points to a cyclical low of 1% by year-end.

## U.S. real GDP growth faltering

The government's fiscal stimulus package that returned more than US\$100 billion to taxpayers from late spring to early summer gave the economy a boost in the second quarter, with the final tally showing real GDP growth of 2.8% at an annualized rate — the fastest growth rate in the G-7 countries in the quarter. Subsequent data for the summer months, however, were not as rosy and we see little prospect for the U.S. economy to continue to grow at a healthy rate. As a result, we have aggressively cut back our forecast for economic growth in the second half of 2008 and in 2009. We expect the tightening in credit conditions to continue to dampen both consumer and business spending, resulting in negative economic growth rates in second half of 2008 and early next year. The breadth and depth of slowing in many sectors of the U.S. economy leaves little doubt that recessionary conditions exist (see charts on page 8). The unemployment rate is now forecast to rise above 7% by the middle of next year which, combined with sub-potential economic activity, will alleviate some of the upward pressure on prices.

Despite the bleak near-term outlook, we look for the U.S. economy to recover in late 2009 as the easing in the cost of capital and credit conditions reinvigorates business investment and the end of the housing market recession takes some pressure off household balance sheets. Interest rates are likely to remain lower than our September forecast, with the Fed likely to hold the funds target at the expected near-term trough of 1.00% until policymakers are assured that the economy is on firmer ground. Ten-year rates, which we expected would rise to 4.40% by the end of 2008 and 4.55% at end-2009, are likely to hold below 4.00% until the economic recovery gets under way in the second half of next year.

## Bank of Canada joins rate-cut party!

The Bank of Canada participated in the global co-ordinated rate cut, implementing a 50 basis-point ease that put the overnight rate at 2.5%. The Bank cited the tightening in

credit conditions, falling commodity prices and weakening U.S. demand as setting up for “below-potential growth in aggregate demand through 2009” and an easing in inflation pressures. While the Bank expects “this action will provide timely and significant support to the Canadian economy,” the key to whether more rate cuts are forthcoming will be financial market reaction, with some evidence of an easing in funding costs and stabilization of equity markets needed for the Bank to stay on the sidelines. Another bout of co-ordinated rates cuts cannot be discounted, however, if global financial market sentiment fails to improve. Our view is that the aggressive policy actions taken by global central banks and governments will get traction, easing some of the stress in financial markets and that Canada’s domestic economy, while slowing, will keep the economy from falling into recession. We, therefore, expect the Bank of Canada to hold the policy rate at 2.5% but acknowledge the risk of additional easing if credit markets do not respond positively.

### Downside risks present but domestic demand strong enough to keep economy out of recession

The weak U.S. economy and financial market uncertainty will likely result in Canada’s economy growing more slowly than in our previous forecast, but has also gone some distance to alleviating concerns about the upside risks to the inflation outlook. Canada’s two-speed economy is likely to persist, with the trade side restraining the overall pace of growth, while the domestic side stays firm and keeps the economy off a recessionary path. Continued support from the improvement in the terms of trade and rising real incomes will underpin household and business demand and will offset some of the impact of the more challenging credit environment. To-date, borrowing costs for households and businesses have remained well-contained compared to many other countries and the reported tightening in credit conditions has been limited. Still, uncertainty about the global economy and a slowing housing market will likely curb spending going forward.

On balance, Canada’s economy is likely to grow at a mild 1% on average in the final quarter of 2008 and early 2009, a favourable result compared to declining growth in the United States, but still well below the economy’s potential pace. The downward revision to our economic forecasts and the Bank of Canada’s rate cut mean that interest rates are likely to remain lower for longer than we expected when we published *Financial Markets Monthly* in early September. We now expect the overnight rate to finish 2008 at 2.50% rather than 3.00% and for the two-year bond yield to trade around 2.40%. Ten-year rates are forecast at 3.60% at year-end, lower than our previous projection of 4%.

### U.K. and Eurozone economies slipping

Conditions in the U.K. and Eurozone economies have deteriorated. In the United Kingdom, house prices and lending slumped with the labour market showing a rapid decline, posing significant downside risks to the outlook for consumer spending. The tightening in credit conditions and rising spreads are also exerting downward pressure on the economy and we expect that the United Kingdom is headed for a sustained period of negative growth. The Bank of England’s 50 basis-point rate cut this week is likely to be followed up with another 25 basis points, and possibly 50 basis points, of ease at their meeting in November as downside risks to growth usurp concerns about the current elevated level of inflation. In the Eurozone, the growing body of data showing that the economic malaise is broadening out and becoming more entrenched sets up for the ECB to continue to shift its policy rate to more stimulative level. The recent upheaval in financial markets clearly boosted the downside risks to economic growth in the region and we expect the ECB to trim the policy rate by another 25 basis points in December.

## Highlights

▲ The Bank of Canada has lowered the policy rate to 2.50% in a co-ordinated rate move to ward off further deterioration in financial markets and stave off a recession in Canada.

▲ Canada’s domestic economy will continue to do the heavy-lifting and will likely prevent a slide into recession.

▲ Still, a recession-prone U.S. economy means that Canadian exports will soften and the trade drag on the economy will remain large.

▲ The tightening in credit conditions, although more modest than in many other countries, will weigh on consumer and business spending...

▲ ...and keep the economy growing at a sub-potential rate in 2009.

## Interest rate outlook

%, end of period

		Actual			Forecast				
		08Q1	08Q2	08Q3	08Q4	09Q1	09Q2	09Q3	09Q4
<b>Canada</b>									
	Overnight	3.50	3.00	3.00	2.50	2.50	2.50	3.00	3.00
	Three-month	1.88	2.50	1.90	1.25	1.75	2.00	2.50	3.00
	Two-year	2.55	3.22	2.65	2.40	2.60	3.00	3.25	3.75
	Five-year	2.89	3.43	3.05	2.95	3.25	3.60	3.75	4.00
	10-year	3.42	3.71	3.66	3.60	3.90	4.00	4.20	4.25
	30-year	3.94	4.06	4.15	4.10	4.40	4.50	4.70	4.75
<b>United States</b>									
	Fed funds	2.25	2.00	2.00	1.00	1.00	1.00	1.00	1.50
	Three-month	1.30	1.68	0.72	0.85	0.90	1.00	1.25	1.75
	Two-year	1.62	2.64	1.87	1.50	1.75	2.00	2.35	2.50
	Five-year	2.46	3.33	2.85	2.25	2.60	2.85	3.25	3.75
	10-year	3.42	3.96	3.71	3.65	3.85	4.00	4.25	4.50
	30-year	4.30	4.51	4.22	4.10	4.30	4.50	4.75	5.00
<b>United Kingdom</b>									
	Repo	5.25	5.00	5.00	4.25	3.75	3.50	3.25	3.00
	Two-year	3.90	5.25	4.50	3.20	3.00	3.10	3.10	3.20
	10-year	4.35	5.15	4.50	4.00	3.90	4.10	4.35	4.45
<b>Eurozone</b>									
	Minimum bid	4.00	4.00	4.25	3.50	3.25	3.00	2.75	2.50
	Two-year	3.46	4.55	4.10	2.90	2.80	2.70	2.80	3.00
	10-year	3.90	4.60	4.20	3.70	3.65	3.75	3.80	3.90
<b>Australia</b>									
	Cash target rate	7.25	7.25	7.00	5.50	5.00	4.75	4.75	4.75
	Two-year	6.20	6.81	5.85	4.10	3.90	4.00	4.25	4.50
	10-year	6.00	6.46	5.61	4.90	4.85	4.90	5.15	5.50
<b>New Zealand</b>									
	Cash target rate	8.25	8.25	7.50	6.50	5.75	5.25	5.25	5.25
	Three-year	6.75	6.35	5.90	5.30	5.10	5.10	5.25	5.50
	10-year	6.45	6.34	5.51	5.45	5.60	5.75	6.10	6.50
<b>Yield curve</b>									
	Canada	87	49	101	120	130	100	95	50
	United States	180	132	184	215	210	200	190	200
	United Kingdom	45	-10	0	80	90	100	125	125
	Eurozone	44	5	10	80	85	105	100	90
	Australia	-20	-35	-24	80	95	90	90	100
	New Zealand	-30	-1	-39	15	50	65	85	100

\*New Zealand's yield curve: 10-year vs. three-year

Source: Reuters, RBC Economics Research

## Central bank policy rates

%, end of period

		Current	Last				Current	Last	
United States	Fed funds	1.50	2.00	Oct. 8, 2008	Eurozone	Min. bid rate	3.75	4.25	Oct. 8, 2008
Canada	Overnight rate	2.50	3.00	Oct. 8, 2008	Australia	Cash rate	6.00	7.00	Oct. 7, 2008
United Kingdom	Repo rate	4.50	5.00	Oct. 8, 2008	New Zealand	Cash rate	7.50	8.00	Sep. 11, 2008

Source: Bloomberg, Reuters, RBC Economics Research

## Economic outlook

### Growth outlook

% change, year-over-year in real GDP

	Actual		Forecast						Annual		
	08Q1	08Q2	08Q3	08Q4	09Q1	09Q2	09Q3	09Q4	2007A	2008F	2009F
Canada	1.6	0.7	0.7	0.7	1.2	1.6	1.5	1.8	2.7	0.9	1.5
United States	2.5	2.1	0.8	0.5	0.1	-0.4	0.1	0.9	2.0	1.5	0.2
United Kingdom	2.3	1.4	0.6	-0.4	-0.8	-0.4	0.3	1.4	2.8	1.0	0.1
Eurozone	2.1	1.5	0.9	0.7	0.5	0.7	1.5	1.6	2.7	1.3	1.1
Australia	3.3	2.7	2.1	2.0	1.7	2.0	2.8	3.3	4.3	2.5	2.4
New Zealand	2.2	1.0	0.2	-0.3	0.4	1.1	1.8	2.0	3.1	0.8	1.3

### Inflation outlook

% change, year-over-year

	Actual		Forecast						Annual		
	08Q1	08Q2	08Q3	08Q4	09Q1	09Q2	09Q3	09Q4	2007A	2008F	2009F
Canada	1.8	2.4	3.4	3.2	3.2	2.2	1.6	1.8	2.1	2.7	2.2
United States	4.1	4.4	5.4	4.4	3.6	2.3	1.5	1.9	2.9	4.6	2.3
United Kingdom	3.5	3.8	4.9	4.3	4.0	2.4	1.9	1.6	2.3	3.7	2.7
Eurozone	3.5	4.0	3.6	3.1	2.6	2.4	2.0	2.1	2.3	3.6	2.3
Australia	4.2	4.5	4.7	4.6	4.0	3.1	2.9	2.1	2.4	4.4	3.1
New Zealand	3.4	4.0	4.4	4.0	3.9	2.7	2.3	2.1	2.4	3.9	2.8

Source: Statistics Canada, Bureau of Labor Statistics, Bank of England, European Central Bank, Reserve Bank of Australia, Reserve Bank of New Zealand, RBC Economics Research

## Inflation tracking

	Measure	Current period	Month ago	Year ago	Three-month trend	Six-month trend
Canada	Bank of Canada core CPI <sup>1</sup>	Aug.	0.3	1.7	2.4	2.0
United States	Core PCE <sup>2</sup>	Aug.	0.2	2.6	2.9	2.3
United Kingdom	All-items CPI	Aug.	0.6	4.8	6.5	5.3
Eurozone	All-items CPI	Aug.	-0.1	3.8	3.1	4.6
Australia	Trimmed mean	2008Q2	1.2	4.3	NA	NA
New Zealand	CPI	2008Q2	1.6	4.0	NA	NA

<sup>1</sup> Seasonally adjusted measurement

<sup>2</sup> Personal consumption expenditures less food and energy price indices

Source: Statistics Canada, Bureau of Labor Statistics, Bank of England, European Central Bank, Reserve Bank of Australia, Reserve Bank of New Zealand, RBC Economics Research

## Currency outlook

Level, end of period

	Actual			Forecast				
	08Q1	08Q2	08Q3	08Q4	09Q1	09Q2	09Q3	09Q4
Canadian dollar	1.03	1.02	1.06	1.10	1.12	1.13	1.14	1.15
Euro	1.58	1.58	1.41	1.33	1.31	1.29	1.28	1.28
U.K. pound sterling	1.98	1.99	1.78	1.74	1.72	1.72	1.73	1.73
New Zealand dollar	0.79	0.76	0.67	0.56	0.55	0.53	0.53	0.54
Japanese yen	99.7	106.2	106.1	102.0	103.0	104.0	107.0	109.0
Chinese renminbi	7.01	6.85	6.85	6.70	6.60	6.50	6.45	6.40
Australian dollar	0.91	0.96	0.79	0.63	0.62	0.60	0.61	0.62
Mexican peso	10.64	10.31	10.93	11.25	11.30	11.40	11.50	11.60

### Canadian dollar cross-rates

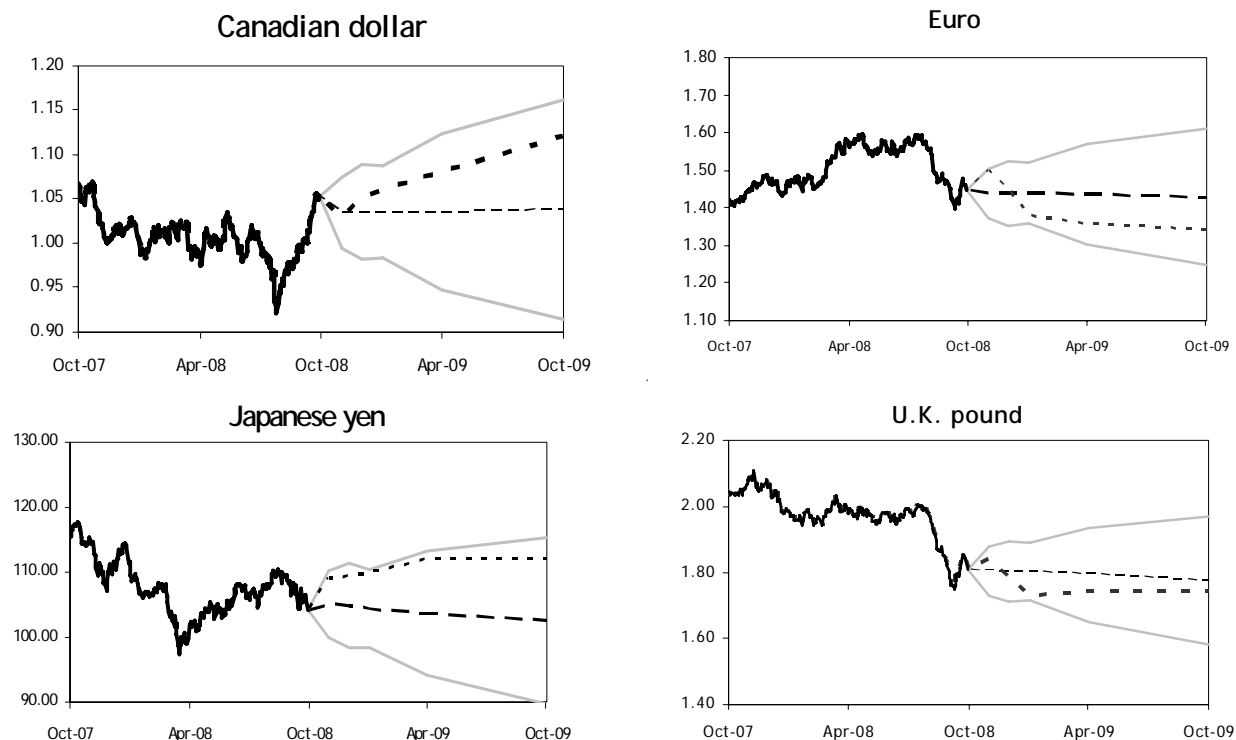
	08Q1	08Q2	08Q3	08Q4	09Q1	09Q2	09Q3	09Q4
EUR/CAD	1.62	1.61	1.50	1.46	1.47	1.46	1.46	1.47
GBP/CAD	2.03	2.04	1.90	1.91	1.93	1.94	1.97	1.99
NZD/CAD	0.81	0.78	0.71	0.62	0.62	0.60	0.60	0.62
CAD/JPY	97.2	104.0	99.7	92.7	92.0	92.0	93.9	94.8
AUD/CAD	0.94	0.98	0.84	0.69	0.69	0.68	0.70	0.71

Rates are expressed in currency units per US\$ and currency units per C\$, except the euro, U.K. pound, Australian dollar and New Zealand dollar, which are expressed in US\$ per currency unit and C\$ per currency unit.

Source: Bloomberg, RBC Economics Research

## RBC Economics outlook compared to the market

The following charts track historical exchange rates plus the forward rate (dashed line) compared to the RBC Economics forecast (dotted line) out one year. The cone for the forecast period frames the forward rate with confidence bounds using implied option volatilities as of the date of publication.



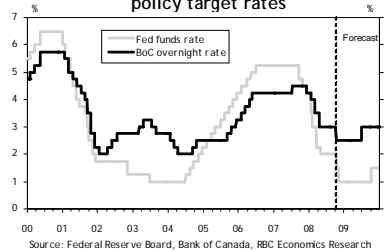
Source: Reuters, RBC Economics Research

## Central bank watch

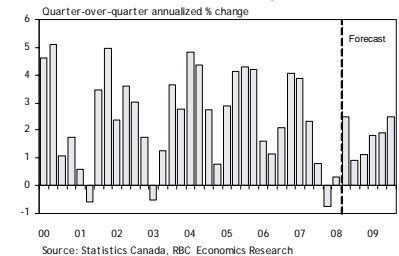
### Bank of Canada

- The weakening U.S. economy and tightening credit conditions increased the downside risks to Canadian growth and inflation and prompted the BoC to cut the policy rate by 50 bps.
- Assuming that financial market volatility ebbs and domestic demand holds up, the Bank is likely to hold the policy rate steady at 2.5%.

Canadian and U.S. central bank policy target rates



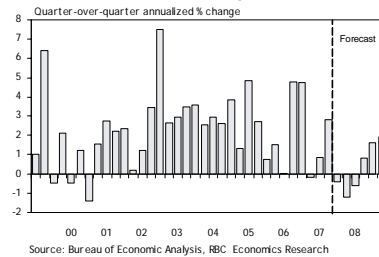
Canadian real GDP growth



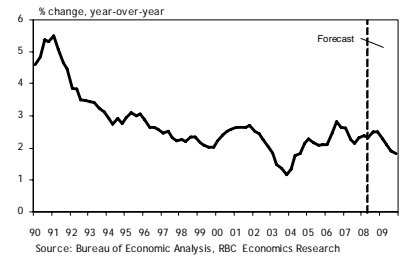
### Federal Reserve

- The U.S. economy geared down sharply in the third quarter as another spurt in the cost of capital dampened activity and slammed confidence.
- The Fed cut the funds rate to 1.50% and will monitor the effect of stimulative monetary policy and the rescue package on financial market conditions with another cut to 1% likely.

U.S. real GDP growth



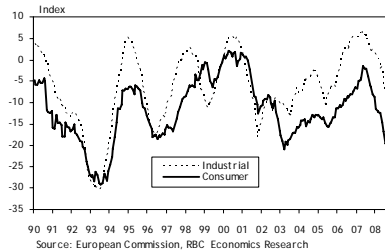
U.S. core CPI inflation



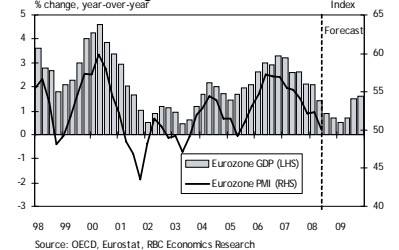
### European Central Bank

- The ECB joined other central banks who cut their policy rates after acknowledging the weakening in the economy.
- Heightened concern about credit markets and mounting downside risks to growth will likely see the ECB cut the policy rate by another 25 basis points before year-end.

Eurozone confidence



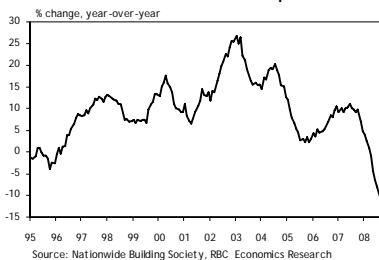
Eurozone purchasing managers index with GDP



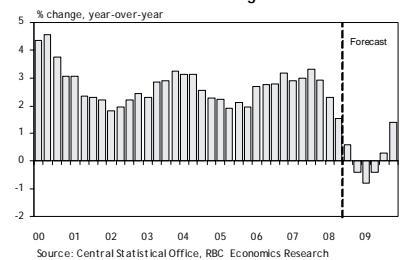
### Bank of England

- Restrictive credit conditions and a widespread slowing in economic activity set up for the BoE to lower the policy rate, with policymakers announcing their decision a day ahead of the regular meeting.
- Growing odds of recession point to the BoE shifting policy to more stimulative levels with a 25 basis-point cut expected in November

U.K. nationwide house prices



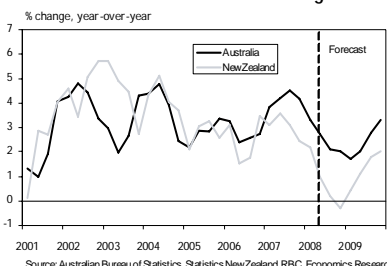
U.K. real GDP growth



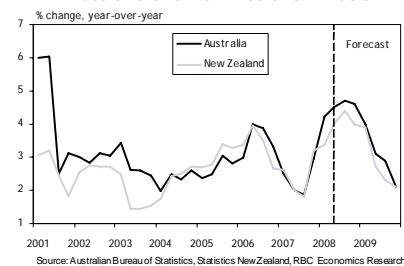
### Australia and New Zealand Reserve Banks

- Against the backdrop of weakening global growth, the RBA is moving quickly to reduce the odds of an Australian recession, having trimmed the cash rate by 100 basis points this week with more in the pipeline.
- Downside risks to New Zealand's major trading partners and soft domestic data set up for the RBNZ to lower the policy rate in the quarters ahead to a stimulative 5.25% in Q1/09.

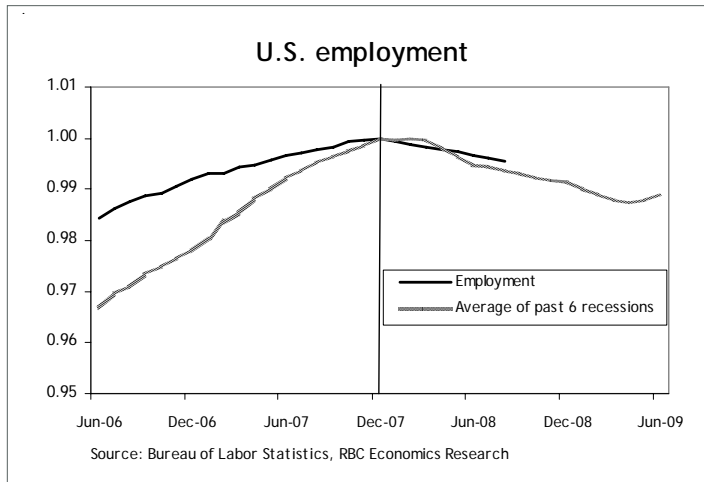
Australia and New Zealand GDP growth



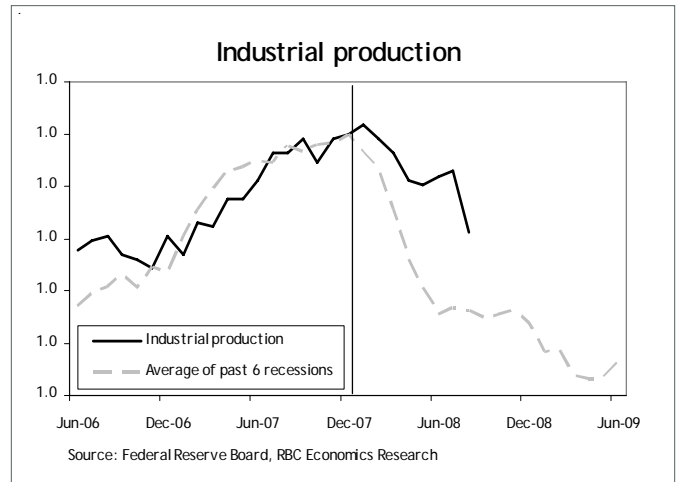
Australia and New Zealand inflation



The U.S. labour market is running on the course of a typical recessionary period, with 760,000 jobs lost during the past nine months.

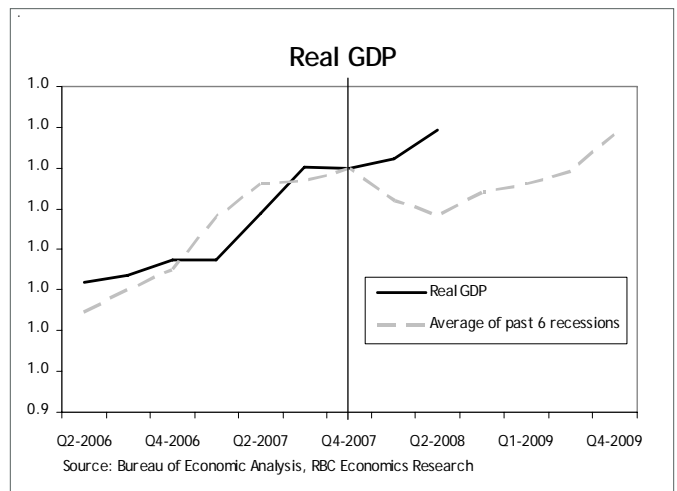
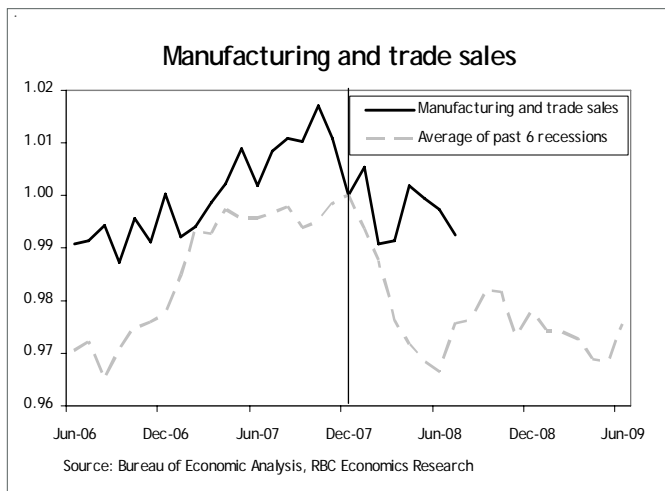


Production slowed sharply mid-year ...



...as sales slumped with the elevated cost of doing business pointing to a sustained slowing in the quarters ahead.

The stimulative fiscal package gave real GDP growth a boost in the second quarter but with the impact of the tax-rebate induced spending fading, a negative print is in the pipeline for Q3. The higher cost of capital will weigh on growth through early 2009.



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# Canada Medium-Range Economic Forecast

TD Forecast

As at 2008-9-25

Quarterly

Forecast ----->

2009Q1 2009Q2 2009Q3 2009Q4

## Financial (%)

BoC Overnight Rate

3.00 3.00 3.25 3.75

Prime Rate

4.75 4.75 5.00 5.50

3M BA

3.15 3.05 2.95 2.90

90 Day T-bill Yield

2.70 3.00 3.25 3.85

5-Year Bond Yield

3.45 3.70 3.95 4.35

10-Year Bond Yield

3.80 4.00 4.25 4.60

30-Year Bond Yield

4.15 4.30 4.50 4.75

## Exchange Rates

U.S.¢/\$C

<1 means CAD<USD

0.95 0.96 0.97 0.97

C\$/U.S.

1.05 1.04 1.03 1.03

# United States Medium-Range Economic Forecast

	Quarterly Forecast ----->			
	2009Q1	2009Q2	2009Q3	2009Q4
Financial				
Fed Funds Rate	2.00	2.00	2.50	3.25
3M Libor	3.25	3.00	2.80	2.65
90 Day T-bill Yield	1.40	1.80	2.40	3.30
5-Year Bond Yield	3.05	3.35	3.70	4.25
10-Year Bond Yield	3.80	4.05	4.30	4.70
30-Year Bond Yield	4.30	4.45	4.65	4.95



## Economics & Strategy

**Jeffrey Rubin**

(416) 594-7357

[jeff.rubin@cibc.ca](mailto:jeff.rubin@cibc.ca)

**Avery Shenfeld**

(416) 594-7356

[avery.shenfeld@cibc.ca](mailto:avery.shenfeld@cibc.ca)

**Benjamin Tal**

(416) 956-3698

[benjamin.tal@cibc.ca](mailto:benjamin.tal@cibc.ca)

**Peter Buchanan**

(416) 594-7354

[peter.buchanan@cibc.ca](mailto:peter.buchanan@cibc.ca)

**Meny Grauman**

(416) 956-6527

[meny.grauman@cibc.ca](mailto:meny.grauman@cibc.ca)

**Krishen Rangasamy**

(416) 956-3219

[krishen.rangasamy@cibc.ca](mailto:krishen.rangasamy@cibc.ca)

***"For once, a much weaker economy may be needed, if only to put Main Street and Wall Street on the same page."***

## A Tale of Two Streets

by Jeff Rubin

Damned if they do and damned if they don't. Either way Congress is going to take the rap for whatever happens from America's worst financial crisis since the Great Depression. In acquiescing to a sceptical Main Street, Congress voted thumbs down on the Wall Street bail-out package, leaving the country's, if not the world's financial system exposed to further price declines in the US housing market.

Congress' rejection of the package reflects the still huge and growing chasm between Wall Street and Main Street. Notwithstanding the growing list of banking casualties in the US, and ballooning credit spreads (see pages 8-9), particularly for financial institutions themselves, Wall Street's crisis is yet to make a big splash on Main Street.

To be sure, floating-rate mortgages in the United States are up almost a full percentage point, and car loans are getting harder to come by. Leases for fuel pigs like SUVs are virtually unobtainable, although that may be a good thing in a world of triple-digit oil prices. And while the American economy may be on the threshold of recession, payroll and industrial production losses to date, suggest that has so far been a relatively modest one.

But it is the very benign nature of today's downturn on Main Street that could pose the greatest danger tomorrow. Without a material worsening in the unemployment rate or GDP growth, Main Street could well remain unimpressed with Wall Street's balance sheet ills. And it could still take a quarter or two before average Americans

feel the full impact of what is happening to their financial institutions. Until they do, they are unlikely to become any more tolerant of a bailout package.

The only problem is that the financial system may not be able to tread water long enough before Main Street suffers sufficiently to get on board with a package. That's why it is so pivotal that a package come now, before systemic damage is sustained.

Watching from the sidelines, Canada, and indeed the rest of the world is not immune to what Congress ultimately decides. The international community benefits from any potential package without having to foot the bill for its mammoth cost.

While neither the Canadian economy nor the Canadian housing market (see pages 10-11) are as exposed to the US financial crisis as their American counterparts, ironically the TSX seems far more leveraged to the crisis than either the Dow or the S&P 500. Fears of a financial market meltdown do not bode well for investor sentiment towards commodities. The recent wild ride in oil prices underscores how concern over toxic balance sheets on Wall Street can spill over into other markets, even where there is little to fundamentally connect them. Auto sales and oil demand are still booming in BRIC countries, where SUV sales lead double-digit vehicle sales growth (see pages 4-7).

For once, a much weaker economy may be needed, if only to put Main Street and Wall Street on the same page.

<http://research.cibcwm.com/res/Eco/EcoResearch.html>

## MARKET CALL

- Central banks in North America were looking to other measures rather than rate cuts to stem the tightening of conditions in financial markets. These included large scale liquidity injections into short-term funding markets, support for troubled US mortgage borrowers, as well as the TARP program, to boost bank balance sheets. For now, our forecast assumes that some version of the Treasury's plan, or an effective alternative, ends up being adopted by Congress. If so, both the funds rate and the Bank of Canada's overnight target will see no change through at least Q1.
- Government bond markets have seen a huge flight-to-safety bid, and we recently pared back our targets for yields over the next couple of quarters. But the rally in the sovereigns should be partially reversed if current chatter about economic doom proves to be overdone. A larger sell-off will come over the latter half of 2009, when improved global growth makes inflation a meaningful threat once again.
- We reduced our targets for C\$ appreciation by a couple of cents in light of a reduction in our projection for commodity prices over 2008-09. Still, with the current account surplus set to rebound along with resources next year, the C\$ has room to once again break through parity with the US\$.

## INTEREST & FOREIGN EXCHANGE RATES

		2008	2009				
END OF PERIOD:		29-Sep	Dec	Mar	Jun	Sep	Dec
<u>CDA</u>	Overnight target rate	3.00	3.00	3.00	3.00	3.50	4.00
	98-Day Treasury Bills	1.70	2.45	2.75	2.80	3.30	3.70
	Chartered Bank Prime	4.75	4.75	4.75	4.75	5.25	5.75
	2-Year Gov't Bond (2.75% 12/10)	2.54	3.05	3.35	3.50	4.10	4.35
	10-Year Gov't Bond (4.25% 06/18)	3.51	3.80	4.00	4.10	4.30	4.35
	30-Year Gov't Bond (5% 06/37)	4.02	4.20	4.30	4.25	4.50	4.65
<u>U.S.</u>	Federal Funds Target	2.00	2.00	2.00	2.25	3.25	4.00
	91-Day Treasury Bills	0.36	1.50	1.70	2.20	3.00	3.60
	2-Year Gov't Note (2% 9/10)	1.67	2.35	2.55	3.20	3.85	4.00
	10-Year Gov't Note (4% 08/18)	3.58	4.00	4.35	4.40	4.60	4.65
	30-Year Gov't Bond (4.5% 05/38)	4.11	4.55	4.65	4.75	4.80	4.90
	Canada - US T-Bill Spread		1.34	0.95	1.05	0.60	0.30
Canada - US 10-Year Bond Spread		-0.07	-0.20	-0.35	-0.30	-0.30	-0.30
Canada Yield Curve (30-Year — 2-Year)		1.48	1.15	0.95	0.75	0.40	0.30
US Yield Curve (30-Year — 2-Year)		2.44	2.20	2.10	1.55	0.95	0.90
<b>EXCHANGE RATES</b>	— (US\$/C\$)	95.6	97.6	100.0	99.0	102.0	103.1
	— (C\$/US\$)	1.046	1.025	1.000	1.010	0.980	0.970
	— (Yen/US\$)	104	108	102	97	96	94
	— (US\$/euro)	1.44	1.48	1.48	1.42	1.40	1.39
	— (US\$/pound)	1.80	1.84	1.80	1.75	1.75	1.75
	— (US\$/A\$)	80.4	88.0	90.0	91.0	92.0	93.0

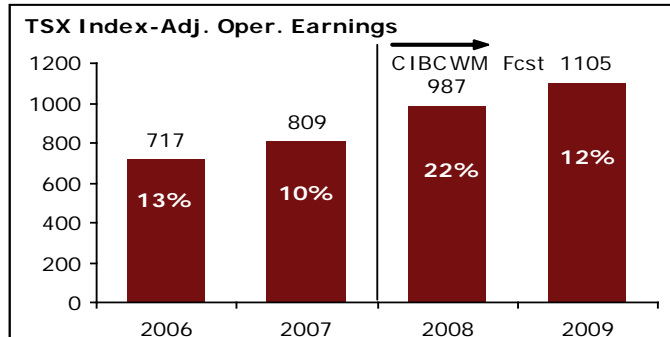
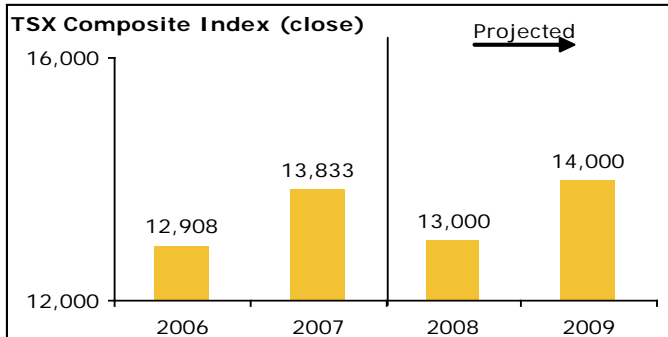
## STRATEGY AND EARNINGS OUTLOOK

- We have reduced our targets for the TSX to 13,000 for the end of the current year and 14,000 for the end of 2009. With Europe clearly in recession and Japan and the US looking little healthier, the world growth outlook is the weakest in years. But it's still nowhere near as weak as the recent plunge in resource stocks would suggest. As in the 2001 recession, China's resource-hungry economy has hardly noticed the US slowdown so far. Ditto for most other emerging market giants.
- We added two and a half percentage points of weighting to financials this month, reverting to a full market weight. Hopefully, efforts to enact financial bailout legislation stateside will eventually bear fruit (see pages 8-9). That won't immediately revive the economy but should help contain the downside risks for the battered financial sector. Sluggish growth and rising household default rates will also hamper Canadian institutions. Mortgage markets, however, do not look in quite as bad shape as their US counterparts (see page 10-11). Canadian PEs already appear to price in a moderate rise in charge-offs.
- We have reduced our exposure to energy stocks by 2½%, which still leaves us modestly overweight that sector. Even with near-recessionary conditions in many industrial countries, oil prices at around \$100/bbl remain at levels that would have seemed extraordinarily high not long ago. Demand in China and the Middle East is still rising at a 5-6% annual pace with limited new supply. That sets the stage for a rebound in WTI to an average \$140 in 2009, as a recovering global economy bolsters demand.

ASSET MIX (%)	Benchmark	Strategy Recommendation
Stocks	53	53
Bonds	38	35
Cash	9	12
GICS SECTOR EQUITIES (%)		
Consumer Discretionary	4.0	1.0
Consumer Staples	2.5	2.5
<b>Energy</b>	<b>30.3</b>	<b>35.3</b>
Financials	28.2	28.2
-Banks	15.9	15.9
-Insur., REITs, other	12.3	12.3
Healthcare	0.4	0.4
Industrials	5.7	3.2
Info Tech	5.3	5.3
<b>Materials</b>	<b>17.1</b>	<b>20.1</b>
-Gold	<b>6.5</b>	<b>8.5</b>
-Other Metals	4.9	4.9
-Chemicals	<b>5.1</b>	<b>6.1</b>
Telecom	5.2	2.7
Utilities	1.6	1.6

Note: Bold indicates recommended overweight.

TSX - Earnings Outlook & Forward PE						
	Operating Earnings (% ch)				4-qtr Fwd PE	
	2005	2006	2007	2008	Latest	Last 10 yrs.
Energy	44.7	12.3	8.5	45.6	8.8	12.0
Health Care	27.5	14.2	35.8	-12.9	16.4	14.9
Industrials	40.7	76.9	1.2	69.2	11.8	28.9
Materials	14.0	17.1	14.1	-7.3	14.8	12.0
Utilities	17.9	-6.5	58.4	2.1	17.4	17.4
Consumer Staples	3.1	0.3	-2.6	0.4	15.7	17.8
Financials	3.7	19.7	-6.1	14.8	11.4	15.7
Info Tech	-41.4	51.6	155.5	53.7	18.7	44.5
Consumer Discretionary	5.3	28.9	-38.7	-23.8	18.8	22.0
Telecom Services	5.9	30.8	28.4	-8.7	16.6	29.8
<b>TSX Composite</b>	<b>31.2</b>	<b>13.2</b>	<b>10.4</b>	<b>22.0</b>	<b>12.3</b>	<b>16.1</b>



Source: Thomson First Call, CIBC WM

# Back to the Future: Revisiting 1982 Auto Sales

Jeff Rubin and Meny Grauman

Almost thirty years after the last OPEC shock, US vehicle demand seems no better able to ward off soaring pump prices than it was back then. While the 30% improvement in engine efficiency might suggest some protection from fuel costs, attendant changes in driving habits and in vehicle choice have left today's auto sales every bit as vulnerable to pump prices as they were during past oil shocks.

## The Fuel Efficiency Paradox

The failure to translate fuel efficiency gains into actual fuel savings is coming back to haunt us. Vehicles are driven almost 30% more than they were back in the heydays of the OPEC shocks. That increase in annual mileage effectively offset the improvements in engine efficiency. And the proliferation of SUVs and light trucks that, up until now, have absolutely dominated North American auto sales, have left the average vehicle on the road as gas-guzzling as the ones that cruised the interstates in the 1970s and early 1980s (Chart 1).

The dismal statistics speak for themselves. After averaging close to 17 million units over the first half of the decade, US vehicle sales have recently plunged below 14 million for the first time since the early 1990s. And the plunge is far from done, as both a weakening US economy and

pump price hikes point to further declines ahead. Within the next two years, vehicle sales are likely to crash below 12 million units, sinking to levels not seen since the early 1980s.

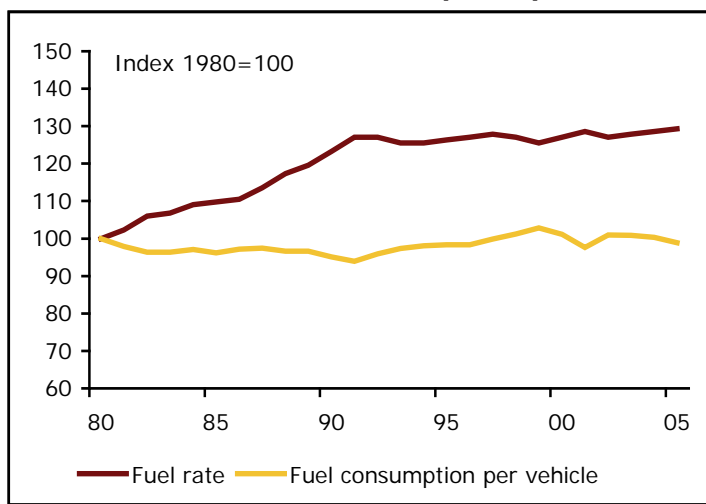
Gasoline prices are already up 35% over the last 12 months, and even with recent pullbacks, that increase is bigger than the massive spikes seen after either of the OPEC oil shocks (Chart 2). Those pump prices are not only putting a huge crimp on sales, but also putting the brakes on Americans' driving habits. Americans are already driving discernibly less this year than last (Chart 3) while mass transit ridership is up by 30% or more in many municipalities around the country.

## Getting off the Road for Good

At today's prices, or even higher pump prices in the future, the longer-term prognosis for the world's largest auto market is not encouraging. Not only are US auto sales likely to continue to slump, even after the broad economy gets on a sounder footing, but sales are soon likely to fall below the scrappage rate. This means that current oil prices are going to do what the previous oil shocks of the 1970s and early 1980s were not able to, namely reduce the total number of cars on US roads.

Chart 1

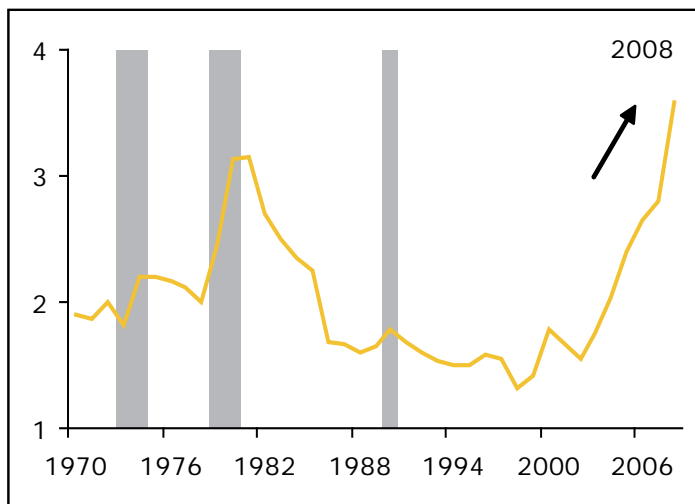
### Improved Fuel Rate for a Given Vehicle Type Failed to Lower Fuel Consumption per Vehicle



Source: EIA

Chart 2

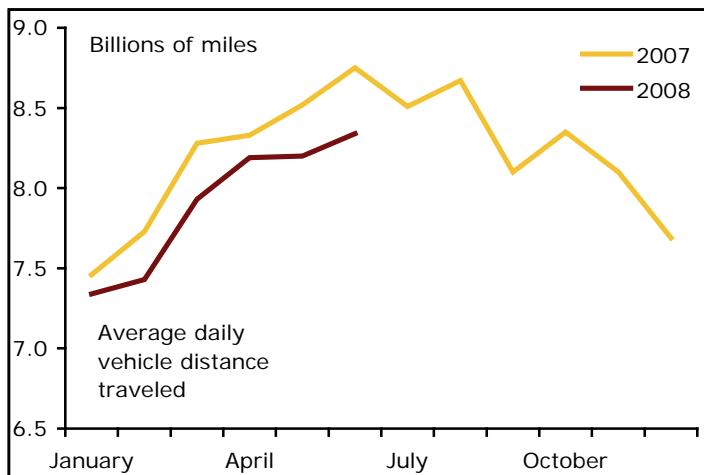
### Real Gasoline Prices at Record Levels



Note: Shading denotes previous oil shocks

Chart 3

## Americans Already Driving Less



The scrappage rate, which is the rate at which cars are taken out of service, is currently 5%, but it has always risen in response to large increases in gasoline prices. By 2010, a 1%-point increase in the current scrappage rate will take close to 14 million vehicles off America's highways (Table 1). With vehicle sales plunging below 12 million, that implies a cumulative loss of just over 3 million vehicles from American roadways by 2010 (Chart 4). That would not be totally unprecedented; after all the US economy saw its total vehicle stock shrink in both 1991 and 2002. But in each of those cases a temporary recession-induced slide was quickly reversed the following year. The decline that we are projecting this time around is different because it is not just a reaction to a temporary dip in the economic cycle, but a much more deliberate response to a fundamental change in fuel costs.

Chart 4

## US Auto Sales Projected to Continue Falling

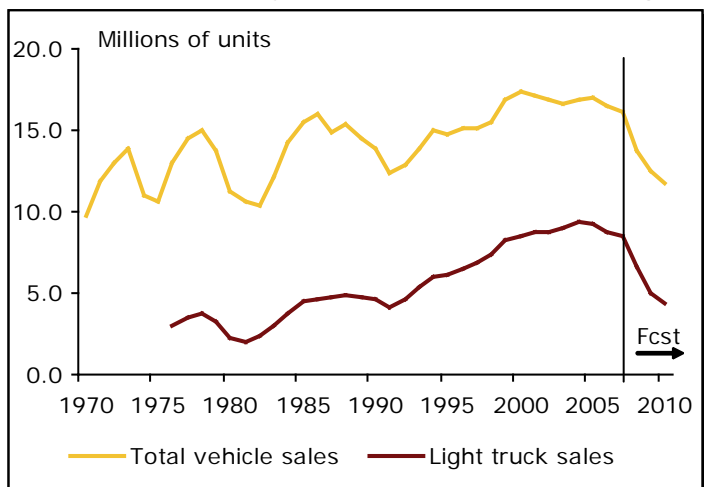


Table 1

## The Shrinking US Auto Market

US Sales and Scrappage Statistics				
	1974 Oil Shock	1979 Oil Shock	2009f	2010f
<b>Vehicle Sales (mn)</b>	11.0	13.8	12.5	11.7
<b>% chg in sales (yr/yr)</b>	-2.9	-1.2	-1.0	-1.1
<b>Scrapped Cars (mn)</b>	6.9	10.4	13.6	14.0
<b>Net Change to Total Vehicle Stock (mn)</b>	4.1	3.4	-1.1	-2.3

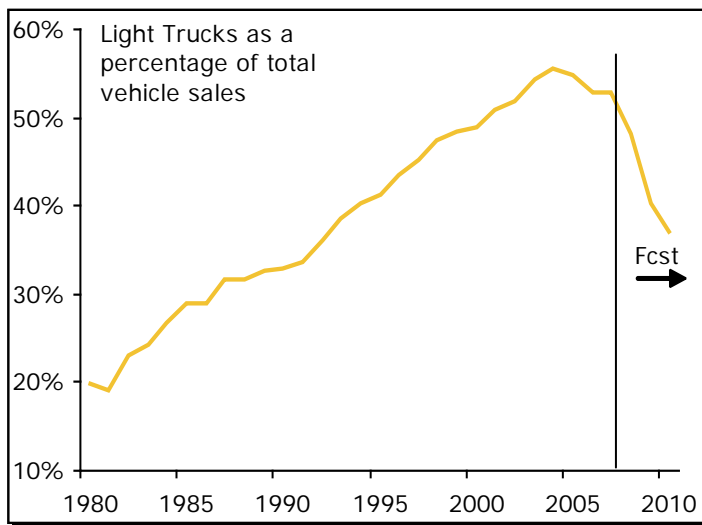
## Driving Less and Driving Different

Despite ongoing volatility, real oil prices are higher than in any prior year in history, and will continue to climb over the next few years, permanently changing the economics of owning and operating a car both in the US and around the world. The implications for Detroit are clear. Not only do the "Big-Three" car makers face a shrinking domestic vehicle market as large numbers of Americans opt for mass transit or give up on a second vehicle, but just as huge a shift is brewing in the type of vehicle Americans are willing to buy. After rising consistently over the last 25 years, the share of SUVs and other light trucks being sold in America is falling. Between 2005 and the beginning of this year, annual sales of light trucks have fallen by 30% compared to a 1% decline in passenger cars. During this time gasoline prices have almost doubled from \$2 per gallon.

Light trucks have already lost about 5%-points of total vehicle market share in what is likely to be a protracted decline as fuel prices trend higher. By 2010, the light truck segment of the US auto market should shed another 10%-points of market share (Chart 5), falling to under 40% of total vehicle sales. That decline will reverse virtually all the gains since the mid-1990s.

The SUV market has been further undermined by the fact that the residual values assumed by most SUV lease agreements over the past few years have been grossly overstated in view of the huge decline in the resale value of these vehicles. Falling resale values mean higher lease rates because lease payments now have to cover a greater

Chart 5

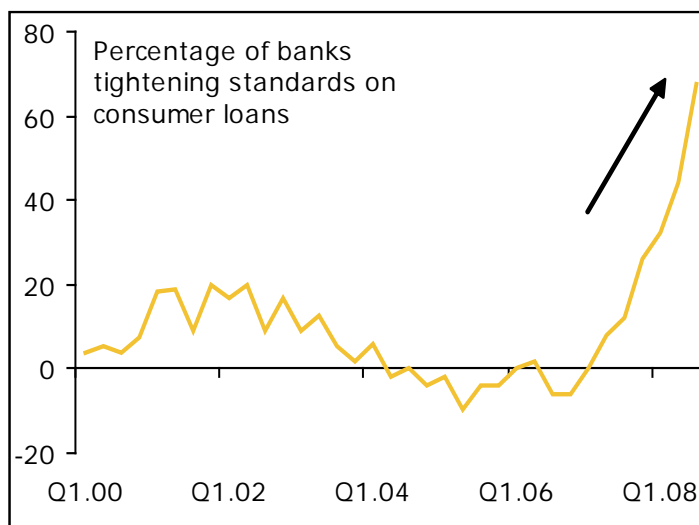
**Americans Starting to Choose Smaller Cars**

amount of depreciated value than ever before. Some estimates point to increases of as much as 40% on a typical 3-year SUV lease.

Lower resale prices for light trucks has forced major automakers and their related financing arms to take large losses to write down the value of leases that were issued at significantly higher vehicle values. As a result of these writedowns, Chrysler has stopped leasing cars in North America altogether, while both Ford and General Motors are raising lease rates and significantly cutting back on the number of leases that they will offer. The effective withdrawal of financing for SUVs will only hasten the plunge in their market share.

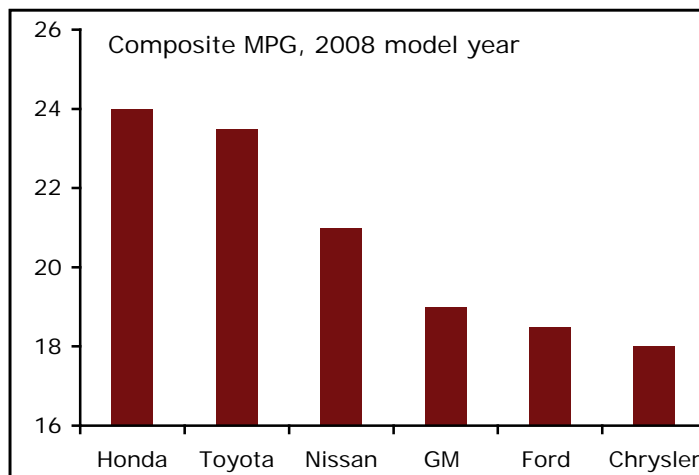
Financing difficulties are not just relegated to the leasing market. Car buyers are also finding it more difficult than ever to get a car loan even though interest rates are lower than they were a year ago. According to the Federal Reserve's quarterly Senior Loan Officer Survey, the number of banks reporting tighter lending standards for consumer loans has ballooned to 67%, while a recent survey by Automotive News suggests that a majority of car dealers are having a hard time securing loans, even for customers with good credit (Chart 6). Meanwhile, Chrysler Financial recently informed its own dealers that it would be raising the rates it charges when dealers borrow to finance their own inventories.

Chart 6

**Consumer Credit Getting Tighter**

The huge shift in consumer preferences away from gas-guzzling SUVs and other light trucks has enormous implications for an auto industry that was ill prepared for triple-digit oil prices. Ford, for example, has lowered its offering of trucks from 70% of its model line-up in 2004 to 40% this year. General Motors and Chrysler have similarly scaled back production and announced a number of plant closures as both scrap some of their light truck models. The American automakers are in a desperate rush to replace product offerings that are on average 25% less fuel efficient than leading imports like Honda and Toyota (Chart 7).

Chart 7

**Big 3 Fuel Efficiency at the Bottom of the Pack**

Detroit knows it must wean itself off SUVs and switch to making hybrids and other fuel efficient vehicles, but what it doesn't know is whether it can afford to do so. Its entire margin comes from selling the very SUVs, vans and other light trucks that consumers are eschewing in the face of \$4-per-gallon gasoline. At the same time, none of the traditional "Big-Three" US auto companies have yet to demonstrate that they can make any money producing a hybrid vehicle. In fact, most car makers other than Toyota are assumed to currently be losing money on their hybrid product lines, and even Toyota's margin is likely paper-thin.

Both Chrysler and GM are scrambling to get a fully electric car to market, but even these moves will not be game changers in the short run. Chrysler for example has not even settled on a battery supplier, while the much-hyped Chevy Volt will be both relatively expensive at a list price of over \$30,000, and in very short supply, with an initial production run of only 10,000 in 2010 before ramping up to just 60,000 units by 2012. To put this number in perspective it amounts to just 1½% of GM's total North American vehicle production last year and less than 0.5% of annual auto sales.

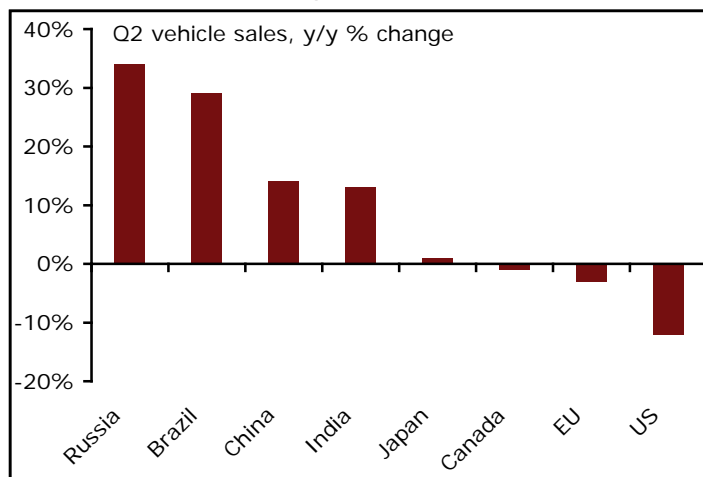
### World Auto Sales to Hit Record High on Soaring Demand from BRIC Countries

Despite the systemic problems facing the US auto market, the world market has seldom been better. This year should mark the seventh consecutive record for annual vehicle sales, led by continued strength in Brazil, Russia, India, China (BRIC) and the rest of the developing world. While vehicle sales in the second quarter fell a combined 7% in the United States, Canada, the European Union and Japan, they were up 20% in BRIC countries (Chart 8). In fact, total annual sales in these countries are expected to overtake the US next year for the first time ever.

Moreover, the very models that American motorists are shunning, motorists overseas are snapping up. SUV sales, which already make up roughly 8% of the red-hot Chinese car market, are up 40% since the beginning of the year, and demand for such vehicles is similarly strong in Russia as well. So great is the demand for SUVs in the Chinese

Chart 8

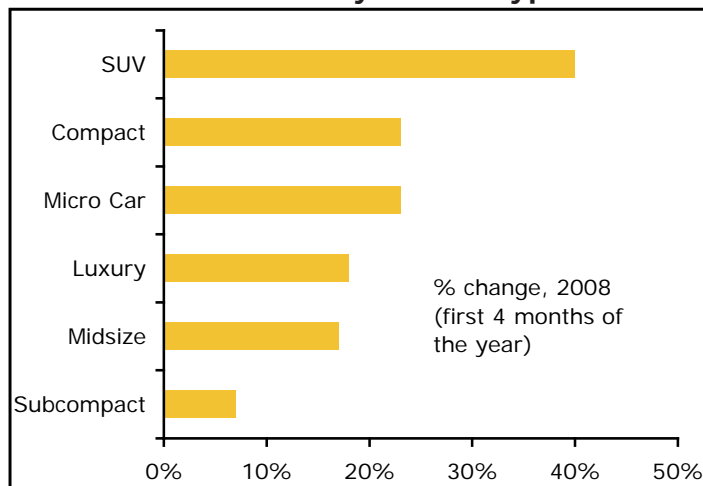
### Vehicle Sales Soaring in BRIC Countries



market that General Motors plans to start shipping the Michigan-made Buick Enclave, a seven-passenger vehicle, to China. SUV demand is growing at double the rate of any other class of vehicle in the Chinese market and four times the pace of sales of fuel-efficient subcompact cars (Chart 9). As their own domestic auto market shrinks, American car companies better look overseas if they hope to be able to see sales growth in the future.

Chart 9

### Chinese Vehicle Sales by Vehicle Type



# Treasury Bailout: Deal or No Deal?

Avery Shenfeld

Washington's now-jeopardized effort to unfreeze the financial system matched the drama of the events that made it a necessity. Historic names vanished in a moment's notice, sending the spread being paid for even 1-3 month money soaring (Chart 1). A 2% fed funds rate means nothing when 3-month Libor, the base for floating rate loans, sits at nearly 4%. Even when it looked as if the bill might gain passage, its benefits were being overlooked as markets focused on new names moving into collapse or rescue.

Lessons from Japan on the consequences of a poorly addressed financial system crisis after a bursting of a property bubble aren't pretty. Japan spent the 1990s in and out of recession as its banks were left hanging with bad loans and, as a result, a constrained ability to lend and finance growth.

If the stock market keeps diving, it won't be too late for the House to reconsider its initial thumbs down. Members of Congress feared the wrath of voters, dismayed that Wall Street would get any form of rescue from what they perceived as a crisis it helped create. But voters' wrath could also fall on members if they were seen as the cause of a financial meltdown.

If not exactly the Troubled Asset Relief Program (TARP), then what? There are two problems that any plan has to address. First, the absence of sufficiently funded arbitrageurs, and the costly information necessary to sort out the wheat from the chaff, has meant that mortgage-related assets are being marked at far below their true hold-to-maturity value. We reached that conclusion as far back as a year ago (see September 2007 *StrategEcon*). The Treasury hoped to design a mechanism that would allow them to identify undervalued assets and remark them by their purchases, boosting bank balance sheets in the process.

A \$100 bn upward remark would, given 20-times leverage, allow banks to expand lending by \$2 trillion, a major improvement in a \$14 trillion economy. And that doesn't include other multiplier effects, such as those generated by raising the credit ratings of financial institutions, which then raises the capital position of others who have them as counterparty risks.

To accomplish that feat, any plan has to be large enough to entail purchases across the full spectrum of outstanding securities. At, say, a 50-cent discount to face value, TARP might have had a bit of overkill, allowing the Treasury to buy \$1.4 trillion in mortgages, roughly two-thirds of all US outstanding residential MBS that are not already Fannie/Freddie owned or insured (Chart 2).

Chart 1

## Libor Spreads Boost Business Borrowing Costs

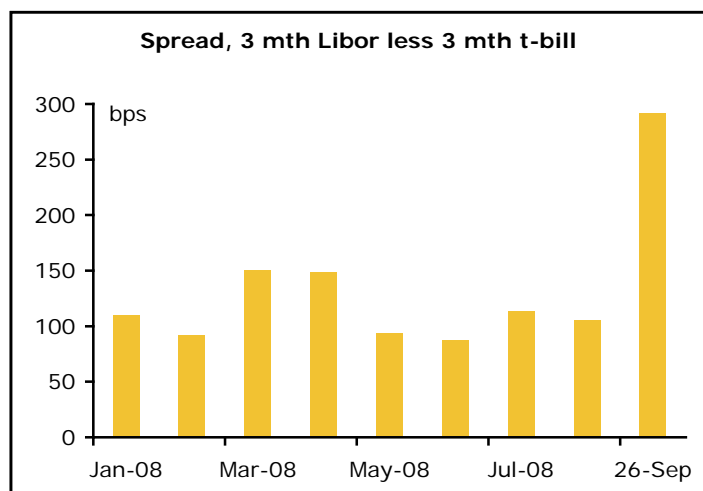


Chart 2

## TARP Will Be a Significant Market Player

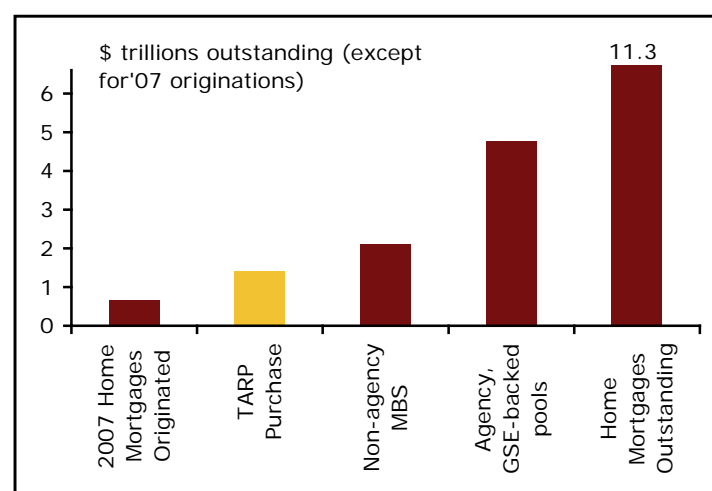
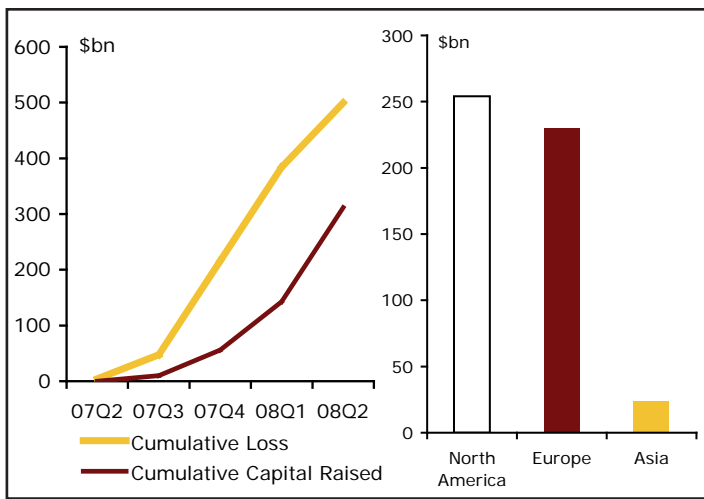


Chart 3

**Writedowns Outpacing Replacement Capital**

Second, losses not only on these illiquid securities, but also on credit default swaps and securities associated with failed counterparties, have left an undercapitalized financial system, the same ill that plagued Japan in the 1990s. Global financials have taken huge hits to capital, and have been struggling to keep pace in terms of new issuance (Chart 3). Falling share prices make it difficult to further dilute existing shareholders through the new equity or preferred issues necessary to raise tier-one capital. Going to the market, particularly in a second round, is seen as an admission of weakness, and risks sending nervous counterparties fleeing in the process. Paulson likely hoped that the upward revaluations created by TARP purchases would not only reduce the strain on capital, but support a rebound in share prices and enable some banks to go back to the market for funding.

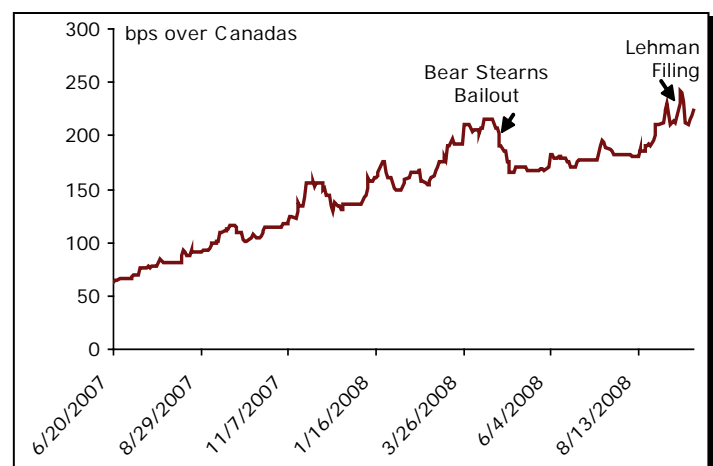
While TARP could still be resuscitated with amendments before this week is done, there are alternatives to meeting both of its objectives. Harvard's Lucian Bebchuk suggested that the Treasury help co-finance privately run distressed asset funds that could go into the market and bid for these distressed assets, with managers incented by the profit motive to buy only what has been unduly marked down. Separately, financials could be mandated to raise additional equity capital—with the requirement to do so eliminating the stigma.

Sweden addressed its 1992 property collapse by forcing quick writedowns and injecting public capital into banks, essentially nationalizing a large chunk of its banking system while wiping out the shareholders of those banks that could not fend for themselves by raising private capital. While Sweden recovered most, if not all, of its investments and shareholders took the pain, such a neo-socialist approach would seem to be an anathema to free-market Republicans in the House.

A risky alternative would be to provide enhanced government-funded deposit insurance to help restore some confidence, and let the run of bank failures continue. The FDIC would seize assets, and a Resolution Trust-style institution would dispose of them slowly and help recover depositors' funds, while letting time and those sales establish better market prices on the assets. Risky because given the linkages across banks, each failure raises the odds of follow-up collapses.

For Canadian equities, the ultimate beneficiaries of any successful rescue effort will be financials, those with US operations that potentially might let them participate directly, and those that will re-price assets as the higher valuations are established. Counterparty risks to US financials will ultimately be reduced if Congress and the White House can agree on an effective alternative plan. Canadian banks have seen widening funding costs during the current crunch (Chart 4) and stresses on counterparty risks, and these should ease as financial system confidence is restored. But all of that will take time, even if TARP is approved and the Treasury starts to cobble together its procedures for its first purchase. Until then, sentiment will remain soured by the likelihood of further financial failures and rescues outside Canada's borders.

Chart 4

**Typical Mid-Term Cdn Bank Sub-Debt Spread**

# Where's the Trigger for a Canadian House Price Crash?

Benjamin Tal

Every dollar drop in the value of Canadian real estate elevates the level of anxiety about a US-style housing meltdown in Canada. To be sure, house prices in Canada will continue to ease in the coming months. But the triggers that led to a freefall in Canadian real estate markets in the early 1990s and today in US markets are nowhere to be found.

## Buyer's Market?

In six short months, the Canadian real estate market was transformed from a confident seller's market to a more muted balanced market. And at this rate of growth in unit sales and new listings, by early next year the Canadian housing market will turn, for the first time since 1995, to a buyer's market (Chart 1).

Direction is important, but so is magnitude. A quick glance at Chart 2 reveals that when measured against income, the Canadian real estate market has indeed overshot. But a mere 5-7% drop in prices from current levels should bring the national average back to equilibrium. That's a fraction of the 25% overshooting seen in the US by mid-2006.

## Location, Location, Location

While the national housing market is still in a balanced position, the overall picture is far from uniform. Calgary

and Edmonton, where until recently homeowners doubled the value of their real estate during the course of breakfast, are now seeing close to two and a half new house listings for every unit sold (Chart 3). Consequently, average home prices in these markets fell by 8.5% and 4.6%, respectively, during the year-ending July 2008.

The trigger for the current slowing in these markets is a sharp deterioration in affordability. With house prices in Alberta doubling since 2004, housing affordability has deteriorated to levels not seen since the early 1990s (Chart 4).

But a second glance at Chart 4 also reveals that affordability in other key markets such as Ontario and Québec did not worsen so rapidly. In fact, from a national perspective, it is now 20% more affordable to carry a house than it was after Governor Crow took interest rates to double-digit territory in 1990. Put differently, to bring national affordability back to the levels that triggered the real estate correction of 1990, current mortgage rates would have to double.

## US Minus Subprime = Canada

US housing prices have been falling for two years with a cumulative decline of 18% to date—on their way to an eventual correction of 25%. Having started the housing boom roughly at the same time (around 1997), the Canadian housing market is now lagging the US market by roughly two years.

Chart 1

### Cdn Real Estate: Getting Closer to a Buyers' Market

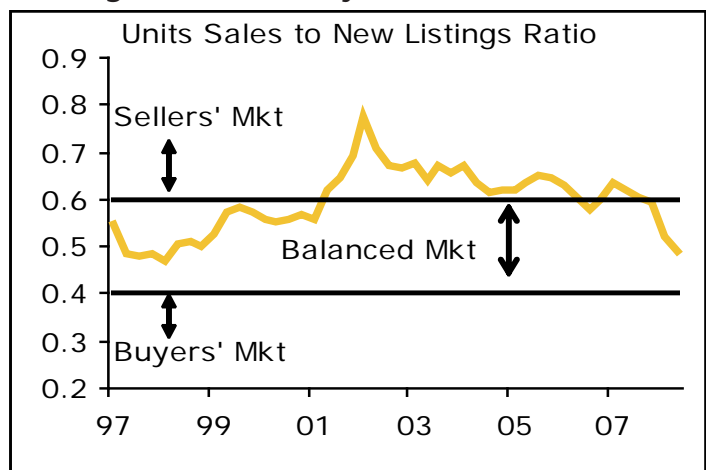


Chart 2

### Cdn House Prices—Some Overshooting

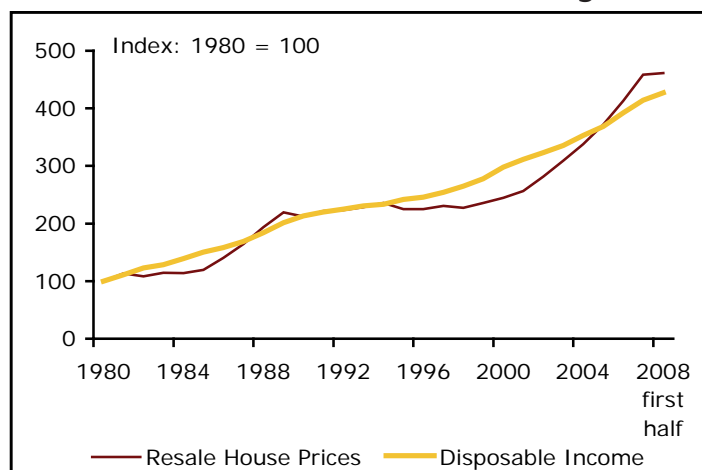
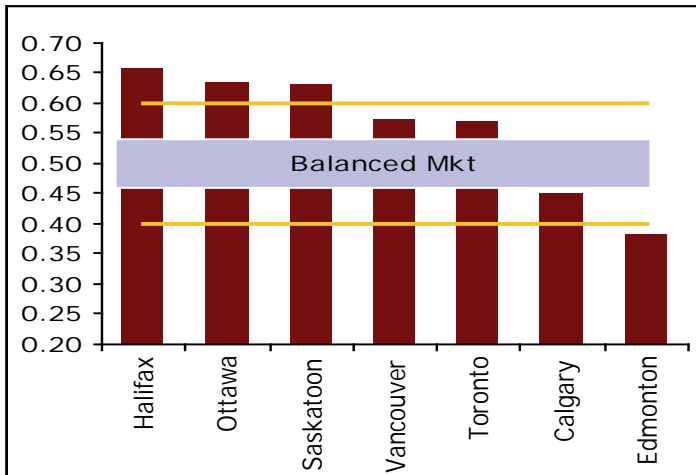


Chart 3

## Unit Sales Per New Listing



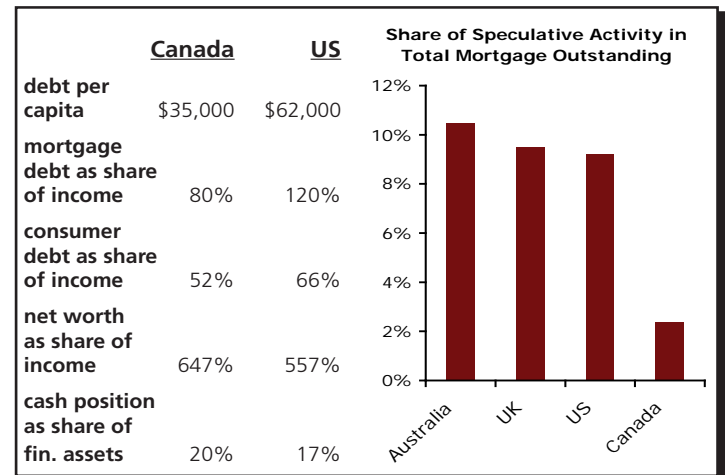
But that's where the similarity ends. By almost any measure, American households entered the current housing crisis from a more vulnerable position relative to their Canadian counterparts—carrying a heavier debt load and a much lighter net worth position (Chart 5, left). And when it comes to real estate speculation, Canada was not really a player (Chart 5, right).

But even more important than the absolute and relative level of debt is the distribution of debt. At the peak of the cycle, subprime and Alt-A mortgages accounted for no less than 33% of originations in the US market. In Canada we estimate that at the peak, non-conforming mortgages reached 5.4% of originations.

And at its core, the US meltdown is a subprime story. A glance at Chart 6 tells the tale. Average house prices

Chart 5

## Canada vs US: Spot the Difference



in cities with above-average subprime exposure fell by more than 25% from the June 2006 peak—notably more than the 10% decline in cities with below average exposure (Chart 6, left). And in today's US market, below-average subprime exposure does not necessarily mean low exposure, as this category includes cities such as Dallas and San Diego with well over 20% in subprime exposure. In fact, house prices in cities with 10-19% subprime exposure fell by only 8% since the 2006 peak, and markets with single-digit exposure fell by an inconsequential 5% (Chart 6, right).

Eradicate subprime from the US housing market and, instead of the most severe house price meltdown since the great depression, you get a trivial moderate cyclical slowing—something along the line of what we are currently experiencing in Canada.

Chart 4

## Affordability: West vs the Rest

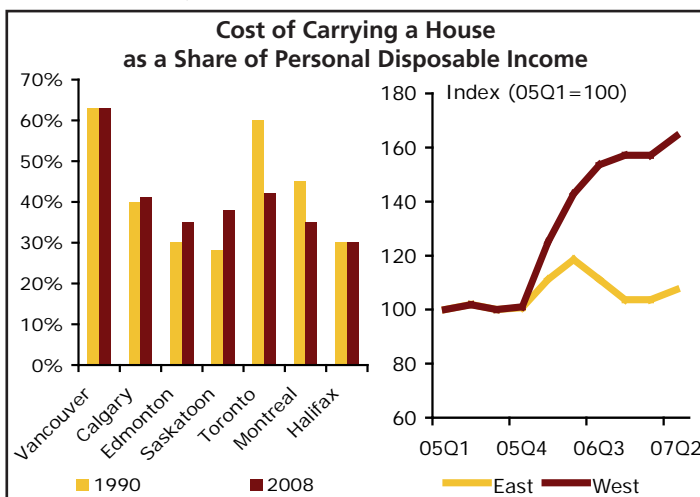
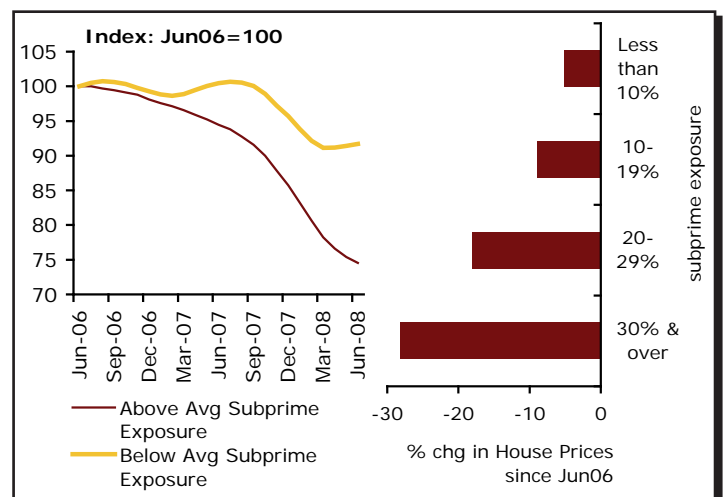


Chart 6

## US House Prices by Subprime Exposure



## ECONOMIC UPDATE

CANADA	08Q2A	08Q3F	08Q4F	09Q1F	09Q2F	2007A	2008F	2009F
Real GDP Growth (AR)	0.3	0.8	-0.5	1.0	2.6	2.7	0.6	1.3
Real Final Domestic Demand (AR)	2.0	2.6	1.7	2.1	2.5	4.2	3.5	2.3
All Items CPI Inflation (Y/Y)	2.4	3.4	2.6	2.5	2.6	2.1	2.5	3.3
Core CPI Ex Indirect Taxes (Y/Y)	1.5	1.7	2.4	2.5	2.5	2.1	1.7	2.8
Unemployment Rate (%)	6.1	6.1	6.4	6.5	6.6	6.0	6.1	6.4
<b>U.S.</b>								
Real GDP Growth (AR)	3.3	0.3	-1.8	1.8	2.8	2.0	1.6	1.9
Real Final Sales (AR)	4.8	-1.1	-2.0	1.3	2.4	2.4	1.8	1.5
All Items CPI Inflation (Y/Y)	4.4	5.4	5.1	5.2	4.5	2.9	4.8	5.1
Core CPI Inflation (Y/Y)	2.3	2.5	2.8	2.9	3.1	2.3	2.5	3.1
Unemployment Rate (%)	5.3	5.9	6.2	6.4	6.2	4.6	5.6	6.2

### CANADA

In our recent issue of Forecast, we pared back our outlook for Canada, with little real GDP growth expected through Q1 2009. Headline CPI will also be more moderate during that period given the pullback in oil. Thereafter, we still see an improved global backdrop and rising commodity prices providing a substantial lift to growth and inflation.

### UNITED STATES

The official growth numbers may not yet show it, but the US economy is in recession. Third quarter real GDP growth may still manage to come in flat, but the fourth quarter will see a big decline. A large scale government bailout of the US financial system is necessary to mitigate the downside risks to the economy, but remains highly uncertain. Regardless of any legislative life-line, expect another few quarters of intensifying job losses and contracting consumer demand. Lower energy prices should help take some of the heat off headline inflation, but year-over-year CPI remains elevated, and core inflation could still move higher as firms continue to push through earlier costs increases.

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## Canadian Outlook Executive Summary Autumn 2008

# Living With a Troubled Neighbour

### OVERVIEW

The five-year period from 2003 to 2007 was a good one for Canadian households, businesses, and governments as they generally benefited from the meteoric rise in prices for energy and many other raw materials. The phenomenal growth in real purchasing power bolstered spending by governments and households, spurred strong growth in private investment, and generated plenty of jobs. But the strength in domestic demand also boosted imports—and those wheels were further greased by the appreciation in the Canadian dollar. Meanwhile, the rising loonie significantly eroded the competitiveness of Canada's manufacturing sector, which came under pressure to retool and downsize its labour force. Still, overall export volumes grew over the 2003 to 2007 period, albeit at a modest pace and with most of the growth coming from outside North America. As such, while domestic demand managed to post real growth of 4.2 per cent annually from 2003 to 2007, the trade sector significantly held back overall real gross domestic product (GDP) to an average gain of 2.7 per cent per year over that period.

### HIGHLIGHTS

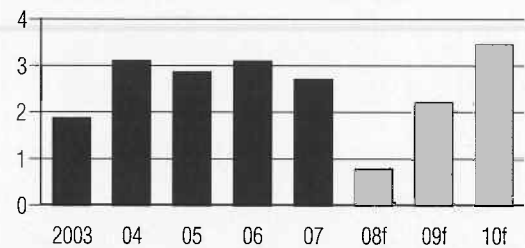
- Turmoil in residential markets will hinder U.S. consumer spending until the second half of 2009. Still, real U.S. GDP growth will advance by 2 per cent this year before slipping to 1.7 per cent growth in 2009.
- Despite the massive banking sector bailout by the U.S. Treasury, the U.S. financial crisis adds downside risk to the forecast. U.S. households and businesses could retrench further and for longer than we have assumed in this outlook.
- Canadian auto exports are being hit hard. A real decline of 19 per cent is expected this year, in line with a steep drop-off in U.S. vehicle sales.
- While there is still momentum in Canada's domestic economy, our near-term economic outlook has been revised down. Real GDP growth of only 0.8 per cent is forecast for 2008, followed by a modest 2.2 per cent gain in 2009.
- Job growth has waned recently—and not just in manufacturing. This, combined with lacklustre confidence, will take a bite out of the recent heated pace of consumer spending growth.
- Volatile commodity prices and waning confidence are holding back business investment decisions. Despite having fallen off from their summer peak, commodity prices will still post a 20 per cent gain for 2008.

Unfortunately, things have changed for the worse over the past 12 months. The housing crash and ensuing financial market crisis that have afflicted our troubled southern neighbour are affecting Canada's performance through a number of channels. The turmoil in the U.S. is having widespread repercussions, affecting investor and consumer confidence and tightening credit conditions on a global scale; and the ensuing downward revision to economic growth in developing economies is taking the shine off some commodity prices.

Here at home, the fall-off in U.S. residential construction has already decimated exports of wood products, while a combination of higher pump prices, lower consumer confidence, and financing constraints will see U.S. vehicle sales fall sharply this year. The drop in net trade of autos and parts<sup>1</sup> will take \$14.5 billion out of Canada's real GDP in 2008—with Ontario bearing the brunt of the losses. Moreover, production difficulties and bottlenecks in the resource sector mean that the expected strength in resource-sector exports is delayed until next year. While domestic demand continues to post strong gains in 2008 (in line with expectations in our summer *Canadian Outlook*), a weaker-than-expected export performance has led to a significant downward revision to overall real GDP growth. We now forecast GDP to advance by only 0.8 per cent this year. Moreover, the U.S. recovery has been delayed until later in 2009, while domestic demand growth in Canada will also soften substantially from the heated pace of recent years. As such, real GDP growth of only 2.2 per cent is expected for 2009, down from the 2.7 per cent growth forecast in the summer *Canadian Outlook*. While the near-term outlook is gloomy, there is a brighter light for 2010 as the U.S. economy's recovery gains traction. A rebound in U.S. residential construction and auto sales is expected to bolster Canadian exports, while our own domestic economy will experience stable growth. Real GDP would outpace potential, posting real growth of 3.5 per cent. (See Chart 1.)

Despite being the epicentre of global economic troubles, growth in the United States has held up over the first half of 2008. Thanks to a revival in exports brought on by a weak currency and to a \$100 billion tax rebate, real U.S. GDP growth accelerated, reaching an

**Chart 1**  
Domestic Demand to Slow Next Year  
(real GDP; percentage change)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

annualized pace of 3.3 per cent in the second quarter of 2008. In comparison, Canada's economy barely managed to skirt a recession, with real GDP growth advancing by a meagre annualized 0.3 per cent in the second quarter following a 0.8 per cent decline in the first. However, the comparison skews what is happening in the domestic economy. The United States relies on foreign imports for energy and many other commodities. As such, high commodity prices have put pressure on the trade deficit and eroded domestic income. Government spending and tax cuts have come at a cost of higher deficits, and despite accommodative fiscal and monetary policy, real domestic demand has deteriorated sharply while job losses have been mounting throughout 2008. A brighter picture emerges for Canada. Raw material prices (weighted by Canadian production) will likely post a 20 per cent increase in 2008—the strongest gains we have witnessed since 2000. This suggests that the income effect that has been driving domestic demand should still carry plenty of momentum—as reflected clearly by the strength in real after-tax income and corporate profits over the first half of this year.

But signs of malaise are creeping into the Canadian outlook. While the manufacturing sector continues to bleed jobs steadily, other sectors have also seen job growth eroded in recent months. In fact, overall employment is estimated to have declined modestly over the third quarter, while real wage gains are also starting to wane. Fiscal stimulus packages—especially in the form of federal and provincial<sup>2</sup> tax cuts—are drying up with the result that real after-tax income growth will soften

considerably over the coming quarter and into 2009. Further hindered by high gasoline prices and eroded confidence, real consumer spending growth will ease to a pace of 2.7 per cent in 2009, down from a 4.5 per cent gain for 2007.

Softer consumer confidence will also take some heat out of the real estate market, although fundamentals suggest that, nation-wide, Canada's housing market did not undergo the type of over-exuberant home price increases—and correction—that have plagued the United States. Following three years of above 10 per cent growth, existing home prices will undergo more humble gains of around 3 per cent in 2008 and 2009. Interestingly, the latest trends show the average price of existing homes falling in Alberta and B.C., while prices were stable or continued to climb in most other areas in Canada. The softer housing markets will serve to weaken new home construction, while total residential investment is also being hindered by a surprising retrenchment (over the second quarter of 2008) in repairs and renovations spending—the first such quarterly decline in nearly a decade.

Having cooled substantially from levels recorded earlier this spring, energy and other raw material prices remain elevated. However, the uncertainties aroused by volatile oil prices and a new royalty regime in Alberta have taken some of the steam out of resource sector investment. Moreover, supply constraints have added to construction costs, while oil sands production is facing bottlenecks from a lack of pipeline infrastructure. These factors have shifted the focus of investment in the energy sector—exploration spending will post a decline this year and will remain lethargic in 2009. Nonetheless, the overall capital investment budget in the energy sector will grow, bolstered in large part by investment in oil sands upgraders and pipeline construction.

Notwithstanding stock market volatility, Canadian corporate finances have remained in excellent shape thus far. After-tax corporate profits were up a booming 37 per cent (at annual rates) in the second quarter of 2008, with increases occurring across nearly all sectors of the economy. Still, this will not serve to bolster non-energy investment spending in the near term. Business

investment is closely tied to expectations about future demand, and the current uncertainty and concern about future economic conditions is putting investment intentions on hold. Moreover, a number of major office and commercial projects (particularly in Toronto and Calgary) are being completed this year, which will take real growth in total private, non-energy construction into negative territory—down 3.3 per cent this year. A modest rebound is expected in 2009.

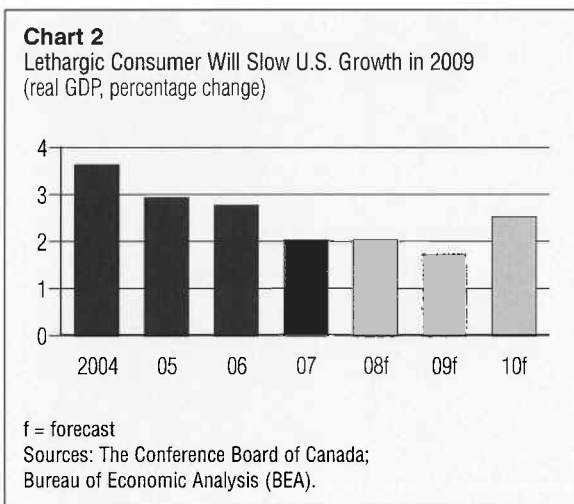
Also worrisome is the outlook for machinery and equipment spending. In recent years manufacturers had been investing heavily in retooling to deal with the challenges of a rising Canadian dollar. However, manufacturers have suffered a more important shock recently—that of declining orders—while concern about the situation in the United States is growing. Despite the still strong loonie, lower prices, and fiscal incentives—in the form of higher capital consumption allowances and lower corporate tax rates—non-energy investment in real machinery and equipment spending is expected to post real growth of only 0.6 per cent this year. This stands in stark contrast to the 8.7 per cent average annual growth registered over the 2003 to 2007 period.

While Canada's domestic economy has plenty of momentum this year, the trade sector has shredded our overall economic performance. Real net exports are expected to fall by \$34 billion in 2008, an amount equivalent to 2.5 per cent of real GDP. Although consumer spending south of the border remained strong in the second quarter (held up by a US\$100 billion tax rebate), U.S. businesses took the opportunity to clear their stock shelves rather than to buy more goods. Moreover, high gasoline prices, tightening credit conditions, and weak consumer confidence have decimated auto sales, especially among the Big Three U.S. automakers. Meanwhile, Canadian imports were propped up by a still strong domestic economy and a government purchase of military transport planes. An end to the military purchase, along with a softer domestic economy, should dampen Canada's appetite for imported goods next year. The outlook for exports next year remains sluggish, although positive real growth of 1.5 per cent is expected (thanks mainly to increased resource sector production).

## ASSUMPTIONS

### U.S. ECONOMY

The outlook for the U.S. economy has turned decidedly gloomy given the fact that the sub-prime financial shock is continuing unabated with equities at cyclical lows and credit spreads remaining well above historical averages. The federal deficit is set to soar with the Treasury's successful bid to spend upward of \$700 billion to calm down jittery global financial markets. The job market continues to deteriorate as employment is declining in all major industries with the exception of health care and government. Despite the pervasive pessimism, there are some tentative signs that the bottom for housing markets might not be far off. Also, the strength in exports will enable the economy to avoid a technical recession, defined as two consecutive quarters of negative growth. The current outlook calls for real GDP growth of 2 per cent this year and 1.7 per cent in 2009. (See Chart 2.)



The unrest in financial markets is apparent from the briefness of the feeling of relief that transpired after the federal government's takeover of mortgage finance giants Fannie Mae and Freddie Mac. Investors welcomed the government move. By the next day, however, their attention had returned to other difficulties in credit markets—and equities tumbled once again. This was then followed by the bankruptcy of the Lehman Brothers investment bank, the takeover of global financial services firm Merrill Lynch by Bank of America for \$50 billion, and

the emergency loan to insurance giant AIG. When all these moves failed to calm financial markets, the Treasury Department and the Federal Reserve announced a plan for the government to buy hundreds of billions of dollars in mortgage-related assets. The goal of the plan is to allow financial firms to get these bad assets off their books and thereby enable them to resume lending activities.

Meanwhile, the pace of employment losses accelerated recently, with 159,000 jobs shed in September. The economy has been shedding workers since the beginning of this year—over 750,000 thus far—and there are few signs that this trend will end any time soon. Ongoing job reductions have the potential to ignite a vicious cycle in which rising unemployment forces households to lower spending which, in turn, causes businesses to reduce investment and payrolls.

The economy is also adjusting to the rapidly fading stimulus provided by the summer's tax rebate cheques. More than \$100 billion was delivered to households between May and early July, and the extra cash boosted spending somewhat. However, the government was hoping for a better response on the part of households. This failed to transpire because the stimulus cheques arrived at the same time as gasoline and food prices surged to record highs. Business investment spending is also set to weaken because of declining corporate profits and rising corporate bankruptcies.

All these negative developments will ensure that the economy continues to struggle through at least the first half of 2009. However, there are some indications that some of the economy's imbalances are gradually being worked off. The tumble in home prices has resulted in a restoration of housing affordability in some metropolitan areas of the country. Home prices and effective rents are now in line with household incomes in Boston, Chicago, Denver, and even parts of California. The downturn in housing starts, while having a devastating impact on the economy, has finally lowered construction below the depressed level of new home sales. Inventories of new homes are finally declining, and although it will take until sometime in 2010 before inventories are worked off, construction activity should start to expand in the first half of 2009.

The takeover of Fannie and Freddie is another positive for the economy, given that mortgage rates declined below 6 per cent immediately after the announcement was made. Mortgage credit should also be easier to obtain over the near term because the government has provided Fannie and Freddie with more capital, enabling them to provide more and larger mortgage loans to the worst-hit parts of the country, including California, Florida, and New York.

Our forecast includes the Treasury's plan to buy toxic mortgage debt, helping to stabilize the financial and housing markets and improve credit conditions in the economy, especially over the medium term. However, over the next few months the economy will have to survive a number of challenges that present significant downside risks to the current outlook. Plummeting equity markets will hurt business and consumer confidence. This could lead to weaker spending and more job losses. Also, the loss of wealth attributable to the drop in equities will constrain spending. In addition, interest rates could increase. That could happen if investors are scared off by the mind-boggling amount of money that the federal government must raise to fund the \$700 billion required to eliminate bad mortgage debt held by financial institutions and they decide to stay away from U.S. Treasury securities at their current levels.

## **MONETARY POLICY**

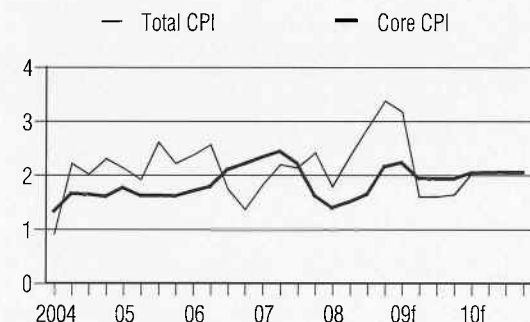
Against the backdrop of financial market distress, the Bank of Canada and the U.S. Federal Reserve had held their interest rate policies steady since April. Interestingly, the significant reductions in benchmark interest rates in Canada and the U.S. between August 2007 and April 2008 had different effects on borrowing costs in each country. Indeed, as pointed out in a recent speech by Bank of Canada Governor Mark Carney, since August of 2007 the borrowing rates faced by households, banks, and businesses actually rose in the U.S. while they declined in Canada.

As recently as September, the Bank reinforced its view that no interest rate changes should be expected. In the statement announcing its September monetary policy decision, the Bank described its interest rate policy

as "appropriately accommodative"—suggesting that a further weakening of economic growth, beyond that seen in the first two quarters of 2008, would be necessary to encourage additional interest rate reductions. On October 7, however, after neither the U.S. government's bailout of the U.S. financial system nor a series of joint liquidity injections by central banks into financial markets were able to calm panicky markets, the Bank—in a joint move with other key central banks—lowered the bank rate by 50 basis points. The turmoil in financial markets—and the expected spillover into the general world economy—was expected to reduce inflationary pressures sufficiently to allow the Bank to take out additional insurance against the downside risks to growth. The unexpected reduction in the bank rate is not incorporated into the current forecast. For two reasons, however, its impact is not expected to significantly alter the outlook. First, prime rate cuts by the major Canadian banks did not fully match the reduction in the bank rate. Second, according to the Bank of Canada's Senior Loan Officer Survey, business-lending conditions have been continuously tightening since mid-2007.

Concerns about inflationary pressures had been a key motivation for the Bank's decision to halt interest rate reductions in April. Since March, the behaviours of total CPI inflation and core CPI inflation have diverged. Despite the January reduction in the federal goods and services tax (GST), total CPI inflation has risen—moving above 3 per cent largely as a result of the dynamic impact of rising commodity prices earlier in the year. Nevertheless, the core CPI inflation rate has been hovering near 1.5 per cent. In recent months, a weakening in commodity prices as a result of the emerging slowdown in the global economy has provided some relief from inflationary pressures. With the global slowdown now expected to be somewhat larger and more protracted than the Bank expected in September, additional easing in commodity prices will provide further relief from inflationary pressures. As economic growth begins to move back toward potential in 2009 and 2010, the total and core CPI inflation are expected to converge toward the centre of the Bank of Canada's inflation target range. (See Chart 3.)

**Chart 3**  
Inflation Expected to Converge at 2 Per Cent  
(year-over-year percentage change)



f = forecast

Sources: The Conference Board of Canada; Bank of Canada.

In the U.S., the Fed also cut its key rate 50 basis points, bringing it down to 1.5 per cent. The Fed had held interest rates steady since April. It's reluctance to reduce interest rates was two-fold. First, policy makers had been concerned with the spectre of rising inflation and inflation expectations. Over the past year, despite slowing economic growth, a weakening dollar and rising commodity prices have led to rising inflation. Second, policy makers believed that alternative tools, such as the provision of additional credit facilities, would be enough to stabilize financial markets. One reason for this reliance on alternative tools was the failure of previous decreases in the federal funds rate to generate commensurate decreases in borrowing costs for consumers, banks, and businesses. In this sense, interest rate policy can be described as "pushing on a string." Another reason was the concern that by continuing to lower interest rates, the Fed would be repeating mistakes of the recent past. With monetary policy already highly accommodative, and low interest rates earlier in the decade at least partly to blame for the housing market bubble and resulting sub-prime meltdown, the Fed had been reluctant to reduce interest rates even further. Given the current credit conditions in the U.S., the latest rate decrease on its own is likely to have only a modest impact on the outlook for the U.S. economy. As the U.S. economy begins to emerge from its malaise in late 2009, the Fed is expected to begin to ratchet up the federal funds rate to keep inflation contained.

In 2007, the loonie's flight was driven by rising oil prices and more favourable movements in U.S.-Canada yield spreads. In 2008, the relationship between the loonie

and oil prices has become much less well defined. The loonie has traded in a relatively narrow range despite wild swings in the price of oil. In part this "delinking" has been a result of the continued fragility of the U.S. economy and the implications of this for Canadian, and indeed global, economic growth. Looking forward, two opposing forces will impact the loonie over 2009 and 2010. Modestly rising commodity prices will put some upward pressure on the dollar, while interest rate hikes that are more aggressive in the U.S. than in Canada are expected to put downward pressure on the Canadian dollar. On balance, the loonie is expected to trade in a relatively narrow range, with a slight depreciation expected over 2009 and 2010.

### FISCAL POLICY

Over the last few years, federal and provincial governments have found themselves in the enviable position of consistently ending up with much more fiscal room than first projected in their annual budgetary exercises. This year is no different. After closing the books on fiscal year 2007-08, the federal government was left with a substantial surplus of \$9.6 billion (compared with the paltry \$3.3 billion originally forecast in Budget 2007). Moreover, by the time the first four months of fiscal year 2008-09 were done, the federal government had already exceeded its yearly budgetary surplus projection—a trend we expect to continue. Although our forecast for real economic growth has been downgraded, higher GDP inflation has minimized the effect on current estimates for nominal GDP, the largest measure of the federal tax base. In fact, our forecast has the level of nominal GDP \$31 billion higher than forecast in the 2008 federal budget for both 2008 and 2009, resulting in a substantial boost for revenue projections. The increase in inflation also lifts expenditures, especially for those programs that are indexed, such as elderly benefit payments and the Canada Child Tax Benefit. Other federal expenditures are also likely to rise in line with prices. These added costs will partially offset the higher revenue projections. That being said, this still leaves the federal government with a projected surplus for fiscal year 2008-09 more than twice as high as predicted in Budget 2008.

The provincial governments as a whole managed a surplus of \$10.8 billion in fiscal year 2007-08, with only P.E.I. failing to balance its books. This is a drastic improvement from one year ago when the provincial governments planned for revenue growth of less than one per

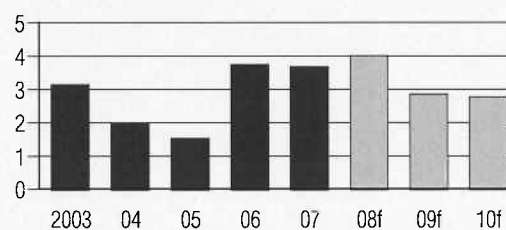
cent and a collective surplus of just \$2.9 billion. In fact, provincial governments managed to increase revenues by \$17 billion over that originally budgeted. The wind-fall was largely due to higher-than-expected personal and corporate income tax collections which occurred across all provinces. The strength allowed provincial governments to ramp up program spending on a public accounts basis by 8.9 per cent—the fastest rate of growth in 17 years. In fiscal year 2008–09, the situation is not as rosy. Overall, provincial governments have been very prudent, with plans to slow growth in program spending in an effort to stay in the black. In fact, according to the latest provincial budgets and quarterly updates, program spending is budgeted to slow to growth of just 3.6 per cent. This restraint should allow for another year of balanced books among the provinces (with P.E.I. being once again the lone exception). If all goes according to plan, a combined surplus of \$2.7 billion is expected for 2008–09.

On aggregate, municipal governments are in a more difficult bind. Statistics Canada reports that the consolidated balance at the local government level has posted deepening deficits over the past few years and reached a shortfall of \$6.3 billion in the second quarter of 2008. Pushing local governments into the red is their rapid pace of capital investment, which increased by 11.8 per cent on average annually over the last five years and grew by an additional 18 per cent at annual rates in each of the first two quarters of 2008. The federal government has been contributing to capital investment by ramping up transfers to fund large infrastructure projects (such as highways, public transit, and sewage treatment plants) and small-scale municipal projects (such as cultural and recreational facilities). Despite these increases in transfers, municipal governments will collectively remain in a deficit position over the medium term.

Combining all levels of government, total current spending on goods and services rose significantly in the second quarter of 2008, boosted by the delivery of military transport planes purchased from Boeing. Although spending on goods and services is expected to remain strong throughout 2008, the removal of this purchase from the numbers in the third quarter will temporarily slow overall spending growth. Still, a solid start to the

year suggests that real current government spending will expand by 4 per cent in 2008. Given prudent budgets, the pace of real spending should ease to 2.9 per cent in 2009. As in recent years, however, purse strings could be loosened further if revenue gains hold up. (See Chart 4.)

**Chart 4**  
Prudent Budgets Suggest Softer Spending Growth  
(real government spending on goods and services,  
percentage change)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

## RISKS

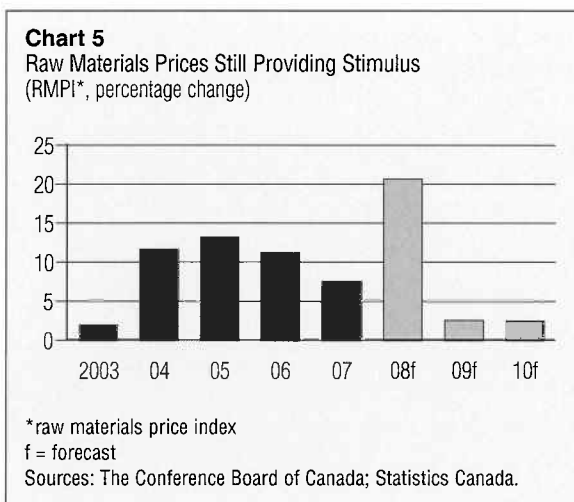
The current volatility and uncertainty in global financial markets pose significant challenges to our near-term economic outlook. This forecast incorporates an implicit assumption that the U.S. government bailout of financial markets occurs. However, the success that the bailout will have in calming jittery financial markets is still uncertain. Thus far, the turmoil on Wall Street has had only limited repercussions on Main Street; however, if the banking crisis continues, the flow-through effects could be substantive. In the United States, tightening credit would hold back investment and exacerbate employment losses as already tentative households pull back further on their spending.

While weaker real GDP growth south of the border has obvious direct repercussions for Canada, the damage would not end there. The sub-prime meltdown is affecting financial and stock markets on a global scale. Already, estimates for global growth have been pulled back. Should financial institutions continue to fail, a gloomier outlook is in the cards. Such a situation would further weaken demand and prices for raw materials, holding back the real income effect that has, since 2003, been a significant source of strength for Canada's domestic economy.

## NATIONAL OUTLOOK

### COSTS AND PRICES

Concern about global growth has brought raw material prices down substantially from their overheated levels. The Baltic Dry index, a measure of dry bulk shipping costs, has also dropped sharply, suggesting that global trade volumes in raw materials have eased in recent months. Yet, despite the correction, many commodity prices remain elevated in comparison with 2007 averages. A good example is oil. The price of West Texas Intermediate (WTI) crude surged to \$147 per barrel this past June; and while prices have since dropped sharply, they remain well above the 2007 average of US\$ 72 per barrel. Moreover, gold prices are once again on the rise; forestry product prices have seemingly hit bottom and are starting to recover; prices for potash and other minerals are also stable; and agricultural prices will remain roughly 10 per cent above 2007 averages. Overall, the raw material price index is forecast to post phenomenal gains this year, up nearly 21 per cent! For next year, growth of only 2.6 per cent is expected. (See Chart 5.)

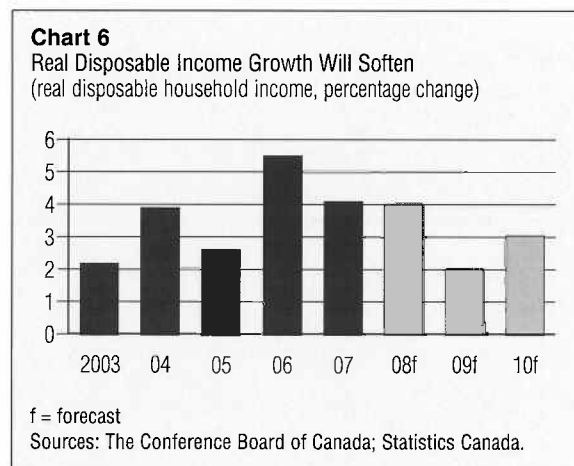


Although consumer prices increased sharply over the spring and summer months (at one point raising red flags about monetary tightening), inflationary pressures are not expected to spiral out of control. Led by a 26 per cent increase in gasoline prices (year-over-year growth to August), overall consumer price inflation has shot up to the 3.5 per cent range. Looking ahead, significantly lower energy prices and a weaker economy are expected to snuff out inflation over the remainder of the year. Overall, CPI inflation is expected to advance by 2.6 per

cent this year but ease back to the 2 per cent range in 2009. Interestingly, the rapid rise in the CPI in recent months has narrowed the gap between wage growth and price inflation considerably. Whereas real wages had been advancing by nearly 1 per cent annually over 2005–07, a slight erosion is expected in 2008. A softer domestic economy will keep gains modest, but positive, in 2009.

### HOUSEHOLD SECTOR

Canada's household sector is still benefiting from the momentum of stellar job growth and income gains that occurred over most of 2007 and early this year. However, as noted earlier, real wage gains are now being eroded by stronger-than-expected inflation, while month-to-month job gains have softened considerably. These trends will result in weaker growth in real after-tax income this year and into 2009—with next year's performance held back further by the drying up of federal and provincial fiscal stimulus. One exception to this is Alberta where a substantive \$1 billion health tax will be eliminated in 2009. Still, after posting phenomenal gains recently (5.5 per cent in 2006!), real after-tax income will ease substantially in 2009. (See Chart 6.)

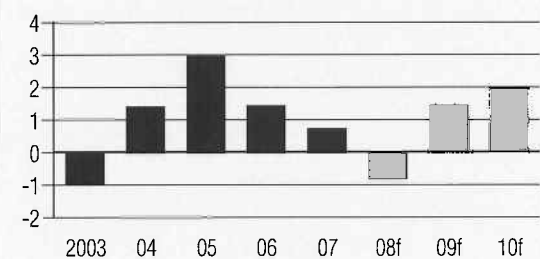


The labour market continued to turn out jobs in the second quarter of 2008. However, concerns about the economy resulted in softness in employment gains in July and August. Figures for the third quarter are expected to show job losses that will bring employment levels back to where they were in early spring. Recent employment losses were widespread and are expected to be temporary as job growth is forecast to resume across most sectors of the economy. The manufacturing sector

is the sole exception. Weak U.S. vehicle sales and continued restructuring suggest that the auto sector will continue to suffer heavy job losses in the coming months. Moreover, Canada's elevated labour costs, combined with the ever-present forces of globalization, will continue to erode manufacturing employment throughout the medium term. A modest recovery in manufacturing output is expected in 2009. Output will strengthen in 2010—but the gains are expected to come from better productivity growth.

In fact, the combination of weak GDP growth and strong employment has resulted in an abysmal performance with respect to Canada's labour productivity. Back in late 2004 and 2005, the manufacturing sector offered a glimmer of hope as heavy retooling temporarily boosted labour productivity growth. Since then however, the modest strength has faded, and non-farm labour productivity is expected to decline by 0.8 per cent in 2008. (See Chart 7.) Softer economic growth, easing profits, and rising labour costs will force better productivity gains over the forecast horizon. Numerous sectors continue to face very tight labour markets. More and more baby boomers are exiting the labour market in favour of leisure, and the demand for replacement workers is leaving some employers scrambling, especially in key occupations such as health care workers, education, and public service. Overall, employment growth is expected to moderate over the remainder of 2008 but still average 1.4 per cent growth for the year. Softer domestic demand will restrain job gains to only 0.7 per cent growth in 2009, allowing the unemployment rate to inch up temporarily, from an average of 6.1 per cent in 2008 to 6.4 per cent next year.

**Chart 7**  
Productivity Growth Lacks Lustre  
(private non-farm labour productivity, percentage change)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Consumer confidence in Canada fell sharply over the spring, due in part to rising gasoline prices and concern about the economy and job prospects. Since June, confidence has been ticking slowly upward. However, the repercussions from the latest round of bank failures and concern over the impact on the economy have not yet registered in the survey numbers. While the U.S. financial crisis is affecting U.S. consumers directly through tighter lending, the impact is more nuanced for Canadian households. Even so, consumer spending is expected to soften in Canada. Over the past few years, real household spending has advanced at a pace well above 4 per cent. Strong demand for autos and home electronics over the first half of 2008 will allow real consumer spending growth to stay near the 4 per cent pace for the year as a whole. Retailers will feel more of a pinch in 2009 when growth softens to 2.9 per cent.

Lower confidence and easing demographic requirements are also taking some of the heat out of the housing markets. New home construction is down sharply from the blistering pace set over the first half of 2008. Moreover, while the regional performance is divergent,<sup>3</sup> growth in the average price of resale homes is quickly easing. Still, concerns that a real estate bubble is about to pop in Canada are unfounded. Data from the 2006 census suggests that while construction levels have been elevated over the 2002 to 2006 period, they have not significantly outpaced underlying demographic requirements. Moreover, in Canada, sub-prime and other risky mortgage loans comprise only a small portion of total mortgage-lending activity, and all such loans must be covered by insurance if the equity stake is small. After falling 6.5 per cent to average 213,500 units in 2008, total housing starts are expected to continue easing. A 9.1 per cent decline will take new home construction levels to 192,400 units in 2009.

## NON-RESIDENTIAL BUSINESS INVESTMENT

While corporate profit growth remained robust over the second quarter of this year (posting healthy gains even outside the resource sector), this will not be enough to rescue near-term investment plans. When asked what factors are holding back business investment, respondents to the Conference Board's Survey of Business Confidence cited weak market demand and the still strong Canadian dollar. Concerns about the availability of corporate liquidity are also starting to creep up.

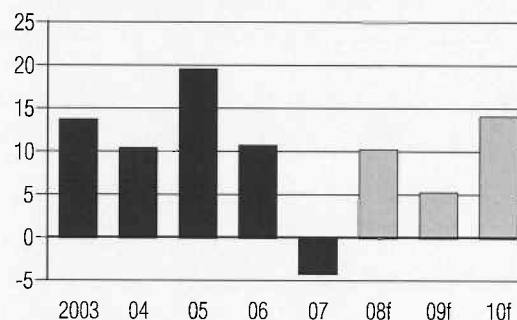
In the auto sector, Canada's labour cost advantage vis-à-vis the U.S.—a fortunate consequence of universal public health care—was virtually eliminated late last year by groundbreaking labour cost-cutting agreements between the Detroit Big Three and the United Auto Workers Union. These factors partly explain the disappointing declines in non-energy machinery and equipment investment over the first half of the year which occurred despite recent increases in capital consumption allowances and federal corporate tax reductions. Looking ahead, these conditions will continue to curtail investment growth, with real non-energy machinery and equipment investment forecast to post growth of only 0.6 per cent in 2008 and 3.8 per cent in 2009—a lethargic performance in comparison with years past.

Private investment in non-energy construction on buildings and structures is being held back by similar headwinds. Moreover, a number of large commercial and office building projects were completed over the last few quarters, helping to explain why real private non-energy construction will decline by 3.3 per cent in 2008. Nonetheless, building permits have come up recently. If the situation in the U.S. doesn't put more investment plans on hold, modest positive growth in real construction is forecast for next year.

Despite record-high oil prices, energy-related exploration and production declined sharply in the second quarter of 2008. This appears to have changed in the third quarter with monthly indicators already pointing to a substantive rebound in production. Nonetheless, exploration activity will remain muted this year. Depressed natural gas prices and Alberta's new royalty regime have reduced exploration budgets, and oil producers—at least those in Alberta—are concerned about bottlenecks being created due to a lack of pipeline infrastructure. Nonetheless, weaker drilling will be more than offset by other developments. Pipeline construction and oil sands investment in upgraders will sustain growth in real energy construction over and above spending on a wide range of ongoing large-scale projects throughout the country. These include hydroelectric, wind-power generation, and nuclear plant refurbishments. At the same time, tight North American refinery capacity has triggered large investment plans for new refineries in Canada. Overall,

the near-term outlook for total real energy investment, including construction and machinery and equipment, remains very robust. (See Chart 8.)

**Chart 8**  
Energy Investment Charges Ahead  
(total\* real energy sector investment, percentage change)



\*construction plus machinery and equipment  
f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

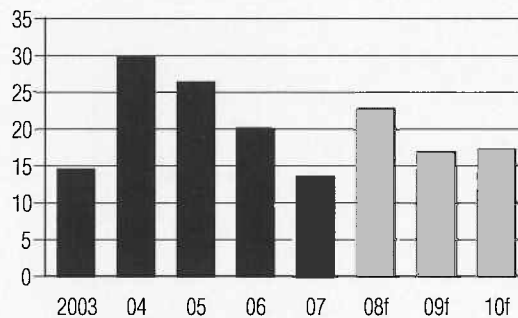
## FOREIGN TRADE

Over the past few years, the rapid rise in the loonie vis-à-vis the greenback has pushed Canadian exporters to penetrate new markets. While there has been some success, exporters remain strongly dependent on the United States, with 77 per cent of merchandise exports still destined for our southern neighbours. In light of the steady U.S. job losses this year and rock-bottom consumer confidence, prospects are not rosy. U.S. demand for motor vehicles plunged dramatically in July as the pickup truck and sport utility vehicle markets took a major beating from soaring gas prices. Between the second quarter of 2007 and the second quarter of 2008, Canada's automotive trade balance moved from a surplus of \$7 billion to a deficit of just over \$9 billion! Unfortunately for the Canadian economy, the trade balance for the auto sector is expected to remain in deficit throughout the forecast. Citing weak global sales of its RAV4 utility vehicle, Toyota recently announced it would delay plans to bring its brand new Woodstock assembly plant to full production. At full capacity, the plant would have added substantially to auto production in 2009. While growth prospects are negative for auto exports this year and next, a softer Canadian dollar should take some pressure off other export sectors. Moreover, resource-sector exports should see some

strength in 2009, as more production comes on stream. Total real merchandise exports are forecast to decline by 3.6 per cent this year, while an anemic 1.5 per cent gain is forecast for 2009.

With growth in real imports expected to continue to outpace real exports by a wide margin over the next couple of years, the deficit in the real trade balance will continue to grow over the course of the forecast. Moreover, despite an improvement in the terms of trade (export prices divided by import prices), the nominal trade balance will not be able to avoid a contraction next year. Nominal net exports are expected to fall from \$36.9 billion in 2008 to \$31 billion in 2009, a decline of 15.9 per cent. Furthermore, the deficit on investment income is also forecast to widen next year as investment income paid to non-residents increases alongside higher interest rates. All in all, the current account surplus is forecast to shrink from \$22.8 billion in 2008 to \$17 billion in 2009. (See Chart 9.)

**Chart 9**  
Terms of Trade Keep Balance Positive  
(current account balance, \$ billions)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

1 It is important to assess the net effect on auto and parts exports less imports. As with many other manufacturing sectors, Canada's auto and parts manufacturing is heavily integrated with that in the United States. Because of this, a significant portion of auto parts imports are intermediate inputs into the Canadian manufacturing process. As such, if Canadian production and exports are cut, there is an offsetting effect from an ensuing reduction in demand for parts that are imported.

2 Alberta is a notable exception as the \$1 billion health care premium will be eliminated in January 2009.

3 Interestingly, recent trends are pushing prices up in Ontario, whereas they are down in British Columbia and Alberta.

**Table 1—Key Economic Indicators**  
(forecast completed September 22, 2008)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2009:4	2010:1	2010:2	2010:3	2010:4	2008	2009	2010
<b>GDP at market prices</b> (2002 \$ millions)	1,326,106	1,327,118	1,329,572	1,337,993	1,345,309	1,354,207	1,364,042	1,375,359	1,389,985	1,401,575	1,412,886	1,423,263	1,330,197	1,359,729	1,406,927
	-0.2	0.1	0.2	0.6	0.5	0.7	0.7	0.8	1.1	0.8	0.8	0.7	0.8	2.2	3.5
<b>Implicit price deflator—GDP at market prices</b> (2002 = 1.0)	1.188	1.218	1.220	1.228	1.230	1.238	1.240	1.244	1.251	1.258	1.263	1.269	1.214	1.238	1.260
	1.2	2.5	0.2	0.6	0.2	0.6	0.2	0.3	0.6	0.6	0.5	0.5	4.3	2.0	1.8
<b>U.S. GDP at market prices</b> (2000 \$ billions)	11,646	11,740	11,798	11,853	11,890	11,931	11,989	12,034	12,117	12,219	12,312	12,408	11,759	11,961	12,264
	0.2	0.8	0.5	0.5	0.3	0.3	0.5	0.4	0.7	0.8	0.8	0.8	2.0	1.7	2.5
<b>Consumer Price Index</b> (2002 = 1.0)	1.122	1.145	1.151	1.156	1.158	1.163	1.169	1.175	1.181	1.187	1.193	1.199	1.143	1.166	1.190
	0.3	2.0	0.5	0.5	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.6	2.0	2.0
<b>Total employment</b> (000s)	17,093	17,140	17,084	17,120	17,150	17,191	17,241	17,302	17,406	17,474	17,538	17,600	17,109	17,221	17,504
<b>Unemployment rate</b>	5.9	6.1	6.2	6.2	6.3	6.4	6.4	6.4	6.2	6.1	6.0	6.0	6.1	6.4	6.1
<b>Private non-farm average hourly earnings</b>	25.36	25.60	25.73	25.89	26.09	26.27	26.46	26.66	26.87	27.07	27.28	27.49	25.65	26.37	27.18
	0.2	0.9	0.5	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	2.6	2.8	3.1
<b>Disposable income</b> (2002 \$ millions)	860,427	863,023	863,807	867,997	873,099	878,011	883,761	890,086	898,474	904,753	911,196	917,570	863,814	881,239	907,998
	2.1	0.3	0.1	0.5	0.6	0.6	0.7	0.7	0.9	0.7	0.7	0.7	4.0	2.0	3.0
<b>Private non-farm productivity</b> (2002 \$ 000s)	49.63	49.61	49.79	49.96	50.17	50.36	50.58	50.81	51.11	51.35	51.60	51.83	49.75	50.48	51.47
	-1.2	-0.1	0.4	0.3	0.4	0.4	0.4	0.5	0.6	0.5	0.5	0.5	-0.8	1.5	2.0
<b>Federal government balance</b> (\$ millions)	2,316	2,300	4,437	5,749	4,823	4,643	4,422	4,845	5,772	4,633	5,976	6,979	3,701	4,683	5,840
<b>Corporate profits before taxes</b> (\$ millions)	209,604	226,964	220,745	228,936	223,702	229,850	229,610	232,720	240,864	247,054	251,458	255,049	221,562	228,970	248,606
	2.3	8.3	-2.7	3.7	-2.3	2.7	-0.1	1.4	3.5	2.6	1.8	1.4	9.0	3.3	8.6
<b>Housing starts</b> (000s units)	234	220	201	199	194	193	192	191	190	189	188	188	214	192	189
<b>Prime rate</b>	5.58	4.75	4.75	4.75	4.83	5.29	5.79	6.21	6.25	6.25	6.25	6.25	4.96	5.53	6.25
<b>Cdn. 3-month Treasury bill rate</b>	2.91	2.71	2.82	2.52	2.68	3.24	3.83	4.31	4.40	4.45	4.48	4.51	2.74	3.52	4.46
<b>U.S. 3-month Treasury bill rate</b>	2.09	1.65	1.66	1.65	1.64	1.67	1.98	2.53	3.31	3.84	4.15	4.21	1.76	1.95	3.88
<b>Exchange rate</b> (C\$/US\$)	0.996	0.990	0.966	0.948	0.950	0.957	0.956	0.955	0.955	0.954	0.954	0.953	0.975	0.955	0.954
<b>U.S. federal funds rate</b>	3.18	2.09	2.00	2.00	2.00	2.04	2.44	3.13	4.08	4.69	5.00	5.00	2.32	2.40	4.69
<b>Merchandise terms of trade</b>	1.248	1.309	1.308	1.316	1.306	1.314	1.304	1.300	1.307	1.313	1.314	1.315	1.295	1.306	1.312
<b>Current account balance</b> (\$ millions)	17,828	27,032	21,383	25,083	18,946	20,676	15,338	12,999	15,268	17,474	18,174	18,962	22,831	16,990	17,469

White area represents forecast data.

All data are seasonally adjusted at annual rates, excluding interest rates, indexes and exchange rates.

Private non-farm productivity is the average output (000s of 2002 dollars) per person-hour in all industries, excluding agriculture, non-commercial services and public administration and defence.  
Private non-farm average hourly earnings is the weighted average of average weekly wages and salaries in the other primary, manufacturing, construction and services industries divided by the corresponding average weekly hours. The weights employed are each industry's share of total non-farm employment.

Sources: The Conference Board of Canada; Statistics Canada; Bank of Canada; Canada Mortgage and Housing Corporation; Bureau of Economic Analysis.

**Table 2—Gross Domestic Product, Expenditure Based, at Market Prices (2002 \$ millions)**  
(forecast completed September 22, 2008)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2009:4	2010:1	2010:2	2010:3	2010:4	2009	2010
<b>Consumer expenditures</b>	812,020	816,948	821,848	826,283	832,145	837,898	843,954	850,312	857,724	864,389	871,057	877,727	819,275	841,077
	0.8	0.6	0.6	0.5	0.7	0.7	0.7	0.8	0.9	0.8	0.8	0.8	3.9	2.7
<b>Net government spending</b> (goods and services)	264,947	268,269	268,941	271,169	273,195	275,086	276,974	278,885	280,827	282,742	284,682	286,601	268,331	276,035
	0.6	1.3	0.3	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	4.0	2.9
<b>Gross fixed capital formation</b>	318,314	316,989	317,608	319,697	321,697	324,759	328,117	331,788	337,869	341,333	344,271	346,678	318,152	326,590
	0.0	-0.4	0.2	0.7	0.6	1.0	1.0	1.1	1.8	1.0	0.9	0.7	1.6	2.7
<b>Government</b>	42,637	42,913	43,610	44,205	44,739	45,176	45,602	46,034	46,464	46,901	47,343	47,789	43,341	45,388
	1.9	0.6	1.6	1.4	1.2	1.0	0.9	0.9	0.9	0.9	0.9	0.9	6.0	4.7
<b>Business</b>	275,659	274,042	273,938	275,418	276,873	279,497	282,430	285,671	291,337	294,364	296,858	298,816	274,764	281,118
	-0.3	-0.6	0.0	0.5	0.5	0.9	1.0	1.1	2.0	1.0	0.8	0.7	0.9	2.3
<b>Residential construction</b>	80,466	79,661	79,770	79,782	80,119	80,248	80,402	80,581	80,839	81,046	81,257	81,470	79,920	80,338
	-1.7	-1.0	0.1	0.0	0.4	0.2	0.2	0.2	0.3	0.3	0.3	0.3	-1.3	0.5
<b>Non-residential construction</b>	67,660	67,378	66,897	66,933	66,936	67,095	67,295	67,536	68,059	68,274	68,429	68,524	67,217	67,215
	0.8	-0.4	-0.7	0.1	0.0	0.2	0.3	0.4	0.8	0.3	0.2	0.1	-1.6	0.0
<b>Machinery &amp; equipment</b>	133,721	133,315	133,816	135,840	137,329	140,591	144,196	148,144	154,984	158,647	161,644	163,966	134,173	142,565
	0.3	-0.3	0.4	1.5	1.1	2.4	2.6	2.7	4.6	2.4	1.9	1.4	5.6	6.3
<b>Final domestic demand</b>	1,394,182	1,401,132	1,407,287	1,416,072	1,425,956	1,436,665	1,447,966	1,459,904	1,475,346	1,487,378	1,498,906	1,509,876	1,404,668	1,442,623
	0.6	0.5	0.4	0.6	0.7	0.8	0.8	0.8	1.1	0.8	0.8	0.7	3.4	2.7
<b>Exports</b>	495,955	488,478	486,520	490,103	492,698	495,715	498,014	501,663	505,969	510,026	514,233	518,538	490,264	497,023
	-1.0	-1.5	-0.4	0.7	0.5	0.6	0.5	0.7	0.9	0.8	0.8	0.8	-3.6	1.4
<b>Merchandise</b>	434,807	427,567	425,648	429,208	431,765	434,677	436,930	440,266	443,804	447,753	451,697	455,737	429,307	435,909
	-0.7	-1.7	-0.4	0.8	0.6	0.7	0.5	0.8	0.8	0.9	0.9	0.9	-3.6	1.5
<b>Imports</b>	579,696	583,004	587,916	591,610	596,689	602,263	606,755	611,955	617,857	623,129	628,349	633,547	585,556	604,415
	-2.3	0.6	0.8	0.6	0.9	0.9	0.7	0.9	1.0	0.9	0.8	0.8	2.8	3.2
<b>Merchandise</b>	482,510	486,360	492,027	496,449	501,528	506,811	511,509	516,448	522,131	527,126	532,056	537,008	489,337	509,074
	-1.7	0.8	1.2	0.9	1.0	1.1	0.9	1.0	1.1	1.0	0.9	0.9	3.0	4.0
<b>Net exports</b>	-83,741	-94,526	-101,396	-101,506	-103,991	-106,547	-108,741	-110,292	-111,889	-113,103	-114,116	-115,009	-95,292	-107,393
	1.0	-0.2	0.0	0.7	0.6	0.6	0.7	0.8	1.0	0.8	0.8	0.7	1.1	2.1
<b>Final demand</b>	1,297,699	1,295,176	1,295,528	1,304,103	1,311,752	1,320,172	1,329,238	1,339,636	1,353,309	1,364,124	1,374,663	1,384,806	1,298,126	1,325,200
	1.0	-0.2	0.0	0.7	0.6	0.6	0.7	0.8	1.0	0.8	0.8	0.7	1.1	2.1
<b>Value of physical change in inventories</b>	2,978	8,367	6,857	6,283	5,562	5,730	6,236	6,861	7,628	8,332	9,068	9,178	6,121	6,097
	124	-28	0	0	0	0	0	0	0	0	0	0	24	0
<b>Government</b>	2,854	8,395	6,857	6,283	5,562	5,730	6,236	6,861	7,628	8,332	9,068	9,178	6,097	6,097
	-609	-1,071	-889	-718	-536	-354	-183	0	0	0	0	0	-822	-268
<b>Business</b>	1,326,106	1,327,118	1,329,572	1,337,993	1,345,309	1,354,207	1,364,042	1,375,359	1,389,985	1,401,575	1,412,886	1,423,263	1,330,197	1,359,729
	-0.2	0.1	0.2	0.6	0.5	0.7	0.7	0.8	1.1	0.8	0.8	0.7	0.8	2.2
<b>Residual error</b>														
<b>GDP at market prices</b>														

White area represents forecast data.

All data are seasonally adjusted at annual rates.

Sources: The Conference Board of Canada; Statistics Canada.

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## **Attachment 2.4.1**

## 2009 Pension Expense and Other Post-Employment Benefits Forecast

	2009 Forecast 5.50%		
	2009 Estimates 28-May-08 original plans	2009 Estimates 28-May-08 new plans	2009 Estimates 28-May-08 Total
<b><u>Pension Expense</u></b>			
<b><u>Terasen Gas Inc.</u></b>			
M&E Basic	(27)	1,858	1,831
New Exec Supp - Regulated **		250	250
M&E Supplemental - Regulated	828	103	931
	<hr/>		
Total M&E Defined Benefit Regulated	801	2,211	3,012
	<hr/>		
Union Defined benefit	(702)	-	(702)
	<hr/>		
<b>TOTAL PENSION EXPENSE - TGI</b>	99	2,211	2,310
	<hr/> <hr/>		
<b><u>Other Post Employment Benefits (OPEB)</u></b>			
<b><u>Terasen Gas Inc.</u></b>			
Union			4,820
Non-Union			1,257
	<hr/>		
<b>TOTAL OTHER POST EMPLOYMENT BENEFITS - TGI</b>	-	-	6,077
	<hr/> <hr/>		

\*\* - this is an estimate of the regulated executive supplemental pension expense

June 24, 2008

Mr. Peter Orr  
Director, Financial Reporting  
Terasen Inc.  
1111 West Georgia Street  
Vancouver, B.C.  
V6E 4M4

Dear Peter:

#### NET BENEFIT COST PROJECTION

Further to your request, we have prepared projections of the net benefit cost and accrued benefit asset (liability) for 2009 with respect to the following pension and post-retirement benefits other than pensions programs for Terasen's regulated businesses:

##### *Registered Pension Plans*

- Terasen Gas Inc. Retirement Plan for Management and Exempt Employees (the "M&E Plan");
- Terasen Gas (Vancouver Island) Inc. Employees' Retirement Plan (the "TGVI Plan"); and
- Pension Plan for Employees of Terasen Inc. (the "Terasen Plan").

##### *Supplemental Pension Plans*

- Terasen Gas Inc. Supplemental Retirement Plan (the "Supplemental M&E Plan");
- Terasen Gas (Vancouver Island) Inc. Supplemental Retirement Plan (the "Supplemental TGVI Plan"); and
- Supplemental Plan for Employees of Terasen Inc. (the "Supplemental Terasen Plan").

*Post-Retirement Benefits Other than Pensions*

- Programs covering non-unionized employees of Terasen Gas Inc. ("Non-Union OPEBs"); and
- Programs covering hourly employees ("Union OPEBs").
- Programs covering employees of Terasen Gas (Vancouver Island) Inc. ("TGVI OPEBs").

The projections of the net benefit cost are presented in Appendix A and the projections of the accrued benefit asset (liability) are presented in Appendix B.

Please note that we have presented the results by company separately for each of the Legacy Plans (M&E Plan and TGVI Plan) and the Terasen Plan. For Terasen Gas Inc., the results are with respect to the Regulated Businesses only.

**ASSUMPTIONS**

The calculations have been prepared following the same methodology and assumptions as our December 31, 2007 accounting report prepared in January 2008, with the following additions:

- As requested, we have determined the net benefit cost and accrued benefit asset (liability) for 2009 assuming a discount rate of 5.50%, an increase from the December 31, 2007 discount rate of 5.25%.
- The asset values as at December 31, 2008 have been projected based on the actual market value of assets as at April 30, 2008, using expected cash flows and assuming an investment return of 7.25% per year for the remaining eight months of 2008.
- For the M&E Plan, we have included a provision for non-investment expenses of \$150,000 per year.
- We have assumed no other changes to the actuarial assumptions and we have not reflected any other experience gains or losses.
- For the M&E Plan, we have reflected the inclusion of a Valuation Allowance in the projected net benefit cost. Please note that a Valuation Allowance is required for the year 2008. As the full amount of the Valuation Allowance is included in the net benefit cost in the first year it is established, we will not know the actual 2008 and

2009 net benefit cost until the actual discount rate as at December 31, 2008 and December 31, 2009 is known.

- We have assumed the following for future employer contributions and benefit payments. Note that changes in the level of future employer contributions will have a direct impact on the accrued benefit asset (liability).
  - M&E Plan (and Non-Union OPEBs): Employer contributions to the registered pension plan are assumed to follow the plan's amortization schedule, as set out in the December 31, 2005 actuarial valuation report, until December 31, 2008 after which contributions are assumed to equal zero. Benefit payments for the registered plan in 2008 have been estimated based on the benefit payments made from January 1, 2008 to April 30, 2008 and are assumed to remain at the same level in 2009. Employer contributions and benefit payments in 2008 for the supplemental pension plan have been estimated based on the benefit payments made in 2007 and are assumed to continue at the same level in 2009.
  - TGVI Plan: Employer contributions and benefit payments for the registered pension plan have been estimated based on experience from January 1, 2008 to April 30, 2008 and are assumed to remain at the same level in 2009. Employer contributions and benefit payments in 2008 for the supplemental pension plan have been estimated based on the benefit payments made in 2007 and are assumed to continue at the same level in 2009.
  - Terasen Plan: Employer contributions to the registered pension plan have been estimated based on contributions made from January 1, 2008 to April 30, 2008 and are assumed to increase annually by the assumed rate of compensation increase. Benefit payments for the registered plan in 2008 have been estimated based on 2008 experience up to April 30, 2008 and are assumed to increase annually based on future retirement experience. Expected employer contributions and benefit payments for the supplemental plan are assumed to equal zero.
  - OPEBs: Employer contributions and benefit payments in 2008 have been estimated based on the benefit payments made in 2007 and are assumed to continue at the same level in 2009.

A summary of the economic assumptions is provided in Appendix C. A summary of the other assumptions is provided in the accounting report prepared as at December 31, 2007.

## **PLAN PROVISIONS**

The calculations have been prepared in accordance with the plan provisions described in our December 31, 2007 accounting report prepared in January 2008.

## **VOLATILITY OF RESULTS**

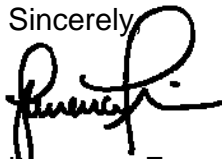
We caution that the net benefit costs and accrued benefit asset (liability) provided are estimates only. The actual 2009 net benefit costs and December 31, 2009 accrued benefit asset (liability) may vary substantially from the estimates provided at this early time, as they depend heavily upon the actual discount rate at the end of 2008 and the actual market returns for the remaining of 2008.

## **ACTUARIAL OPINION**

The calculations herein have been made in accordance with Section 3461 of the Canadian Institute of Chartered Accountants (CICA) Handbook, with which we are familiar. The assumptions used were determined by Terasen Inc. management as their best estimate of long-term expectations, after discussions with Towers Perrin, and are in accordance with accepted actuarial practice. The discount rate of 5.50% has been selected by Terasen Inc. as an estimate of corporate AA bond yields as of December 31, 2008 and December 31, 2009.

In our opinion, for the purposes of the accounting information presented in this letter and its appendices, the data on which the calculations are based are sufficient and reliable, and the methods employed are in accordance with the requirements of Section 3461 of the Canadian Institute of Chartered Accountants Handbook.

Sincerely,



Laurence Frappier, FCIA  
Direct Dial: (604) 691-1052

Attachment

cc: Ms. Lynn Krasovec — Terasen Gas  
Mr. Ashley Witts — Towers Perrin  
Mr. David Morton — Towers Perrin  
Mr. Michael Wach — Towers Perrin

## Projected Net Benefit Costs

2009

### Registered Pension Plans (DB Provisions Only)

<b><i>M&amp;E Plan</i></b>		
Regulated Operations	\$	(27,000)
<b><i>TGVI Plan</i></b>	\$	908,000
<b><i>Terasen Plan</i></b>		
Regulated Operations	\$	1,858,000
TGVI		118,000
Total Terasen Plan (Regulated)	\$	1,976,000

### Supplemental Pension Plans

<b><i>M&amp;E Plan</i></b>		
Regulated Operations	\$	828,000
<b><i>TGVI Plan</i></b>	\$	66,000
<b><i>Terasen Plan</i></b>		
Regulated Operations	\$	103,000
TGVI		-
Total Terasen Plan (Regulated)	\$	103,000

### Post-Retirement Benefits Other than Pensions (OPEBs)

<b><i>Union OPEBs</i></b>	\$	4,820,000
<b><i>Non-Union OPEBs</i></b>		
Regulated Operations	\$	1,257,000
<b><i>TGVI OPEBs</i></b>	\$	1,037,000

**Projected Accrued Benefit Asset / (Liability)**

**December 31, 2009**

**Registered Pension Plans (DB Provisions Only)**

***M&E Plan***

Regulated Operations \$ 12,534,000

***TGVI Plan***

\$ 1,196,000

***Terasen Plan***

Regulated Operations \$ (2,540,000)

TGVI (123,000)

Total Terasen Plan (Regulated) \$ (2,663,000)

**Supplemental Pension Plans**

***M&E Plan***

Regulated Operations \$ (6,421,000)

***TGVI Plan***

\$ (937,000)

***Terasen Plan***

Regulated Operations \$ (401,000)

TGVI -

Total Terasen Plan (Regulated) \$ (401,000)

**Post-Retirement Benefits Other than Pensions (OPEBs)**

***Union OPEBs*** \$ (47,320,000)

***Non-Union OPEBs***

Regulated Operations \$ (10,233,000)

***TGVI OPEBs*** \$ (5,644,000)

## Economic Assumption

<i>As at December 31 (per annum)</i>	<i>2008</i>	<i>2009</i>
Benefit obligation at December 31		
■ Discount rate	5.50%	5.50%
■ Rate of compensation increase	4.50% <sup>1</sup>	4.50% <sup>1</sup>
Net benefit cost for year ended December 31		
■ Discount rate	5.25%	5.50%
■ Rate of compensation increase	4.50% <sup>1</sup>	4.50% <sup>1</sup>
■ Expected rate of return of plan assets	7.25%	7.25%
Inflation	2.50%	2.50%
Escalation of Income Tax Act (Canada) maximum pension limit (for years after 2005 only)	3.00%	3.00%

### Notes:

<sup>1</sup> 4.50% for 2007 to 2011, inclusively, and 3.50% thereafter

# Terasen Gas Inc. Pension Plan For IBEW And COPE Members

## Projected Pension Cost and Accrued Benefit Liability

Discount Rate = 5.50%		2009
Projected Pension Cost / (Income)	\$	(702,376)
Projected Accrued Benefit Liability / (Asset) at the End of Year		(15,178,850)

## Actuarial Basis

The assumptions, methods, and data used are the same as those disclosed in our January 8, 2008 letter to Mr. Craig Hall of Ernst & Young LLP, except as noted below. Please refer to that letter for a description of the actuarial basis, economic factors, decrement rates, and summary of plan provisions.

The projected net benefit cost for 2009 was calculated using a discount rate of 5.50% per annum, as requested.

Please note that the above figures presented are estimates only. Further, we have assumed that the contribution and benefit payments for 2009 are consistent with the results as disclosed in our December 31, 2004 funding valuation report.

The estimated pension cost/(income) and accrued benefit asset/(liability) are estimates as the actual current service cost, employee and employer contributions, benefit payments, return on plan assets, market interest rates, and the market-related value of assets during the projection period will not be known until shortly after the end of the year.

## Data

In determining the financial position of the plan, we have considered the following:

1. The market related value of plan assets was calculated as a three-year moving average based on expected market value of plan assets and cash flows and projected at a rate of return equal to the annual average of monthly corporate AA bond yields plus 50 basis points. Therefore, the expected yield on corporate AA bond yields after 2007 is 5.12% per annum (before 50 basis point adjustment).
2. The portion of the total plan assets attributable to the Accenture Business Services employees and to Terasen Gas Inc. employees have been determined based on the proportion of actuarial liabilities for accounting purposes as of December 31<sup>st</sup> (approximately 0.9% of total plan assets allocated to Accenture Business Services employees and approximately 99.1% of total plan assets allocated to Terasen Gas Inc. employees as of December 31, 2007). The Terasen Gas Inc. portion of the estimated fair value of the total pension fund assets as of December 31, 2007 is \$181,038,825.

3. For purposes of estimating the future pension costs and accrued benefit asset / liability, the following information was used:
- > *for 2008:* estimated employee contributions of \$3,168,945, estimated employer contributions of \$3,168,945, and estimated benefit payments of \$5,630,500;
  - > *after 2008:* employee and employer contributions are assumed to increase at 3.3% per year and existing pension payments are assumed to increase by 2.1% each April 1<sup>st</sup>. The amount of new pension payments commencing annually is based on the expected pensions of active members retiring. Annual lump-sum payments are assumed to remain level and equal to the 2007 amount.

## **Attachment 39.1**



Tom A. Loski  
Chief Regulatory Officer

16705 Fraser Highway  
Surrey, B.C. V4N 0E8  
Tel: (604) 592-7464  
Cell: (604) 250-2722  
Fax: (604) 576-7074  
Email: [tom.loski@terasengas.com](mailto:tom.loski@terasengas.com)  
[www.terasengas.com](http://www.terasengas.com)

Regulatory Affairs Correspondence  
Email: [regulatory.affairs@terasengas.com](mailto:regulatory.affairs@terasengas.com)

June 30, 2008

British Columbia Utilities Commission  
6<sup>th</sup> Floor, 900 Howe Street  
Vancouver, BC  
V6Z 2N3

Attention: Ms. Erica M. Hamilton, Commission Secretary

Dear Ms. Hamilton:

**Re: Terasen Gas Inc. ("Terasen Gas")  
British Columbia Utilities Commission (the "Commission") Order No. G-153-07  
Approval of 2008 Revenue Requirements and Delivery Rates  
CICA Handbook Changes – Report on Estimate of Rate Impact for Changes in  
Canadian Generally Accepted Accounting Principles ("GAAP") effective  
January 1, 2009 – Future Income Tax Liability Report**

---

On December 10, 2007, the Commission issued Order No. G-153-07 (the "Order") approving Terasen Gas' 2008 Revenue Requirements and Delivery Rates. In the Reasons for Decision attached as Appendix A to the Order, under Section 2.6, on Page 5 of 7, the Commission directed Terasen Gas as follows:

**2.6 CICA Handbook Changes – Estimate of Rate Impact for Changes in Canadian GAAP Related to Future Income Tax Liability**

*In its Undertakings Submission, TGI explains it is not contemplating that the changes to Canadian Generally Accepted Accounting Principles ("GAAP") that will be effective January 1, 2009 will require recovery of future income taxes in rates. TGI submits it will require, for financial statement purposes, an entry to be made to record a future income tax liability and an offsetting rate regulated asset. TGI notes that when International Reporting Standards comes into effect there is a possibility that, for financial statement purposes, the offsetting rate regulated asset would not qualify for recognition.*

*The Canadian Accounting Standards Board in August 2007 indicated that it would amend Section 3465 of the CICA Handbook to require the recognition of future income tax liabilities and assets as well as a separate regulatory asset or liability for the amount of future income taxes expected to be included in future rates and recovered from or paid to future customers.*

*The Commission notes that in order for an offsetting rate regulated asset to be created a Commission directive would be required that would allow for future income taxes to be recovered in future rates. **TGI is to file by June 30, 2008, a report on the accounting change impact to its financial statements presentation for 2009, the CICA Handbook guidance for future income tax recognition in 2009, any guidance from other acceptable sources of GAAP, impact on net-of-tax accounting resulting from the accounting change, and the impact, if any, to the regulated schedules and rates resulting from the CICA Handbook changes for regulated operations, plus any other pertinent details. The report should provide the regulatory options for the utility such as setting rates fully complying with the CICA Handbook, partially complying with the CICA Handbook, and seeking a variance from the CICA Handbook.** If and when setting rates that include deferred income tax, the options may include setting rates using normalized taxes for the current portion of the deferred income tax and amortizing or not amortizing the past accumulated deferred income tax balance into rates.*

Pursuant to the Order, Terasen Gas respectfully attaches the Future Income Tax Liability Report.

Should you require further information, please do not hesitate to contact the undersigned or Diane Roy, Manager, Financial and Regulatory Reporting at 604-576-7349.

Yours very truly,

**TERASEN GAS INC.**

***Original signed by: Shawn Hill***

***For:*** Tom A. Loski

Attachment

## **Historical Background**

In the British Columbia Utilities Commission (“BCUC” or the “Commission”) Decision on the Inland Natural Gas Co. Ltd., Columbia Natural Gas Limited Flow-Thru Income Tax, dated December 20, 1983, the Commission found that the public interest would be best served by “flow-through” accounting for income tax purposes for Inland and Columbia. The decision, attached as Appendix A, focussed on a number of issues, including:

1. Accounting authority;
2. Recovery of legitimate costs;
3. Inter-generational equity; and
4. Impact on debt rating and cost of long-term debt.

The “flow-through” accounting treatment considered in the Decision is equivalent to what Terasen Gas Inc. (“TGI”) follows for both regulatory and financial statement purposes today, and is referred to in this document as the taxes payable method.

## **Current Background**

By Order No. G-153-07 paragraph 2.6 “CICA Handbook Changes – Estimate of Rate Impact for Changes in Canadian GAAP Related to Future Income Tax Liability”, the Commission directed TGI to file by June 30, 2008, a report on the accounting change impact to its financial statements presentation for 2009 and provide the regulatory options for the utility.

## **CICA Handbook Guidance**

Currently, the CICA Handbook Section 3465 Income Taxes contains a specific exemption for rate regulated enterprises, as follows:

*3465.102 A rate-regulated enterprise need not recognize future income taxes in accordance with this Section to the extent that future income taxes are expected to be included in the approved rate charged to customers in the future and are expected to be recovered from future customers.*

*3465.103 Pending further study of accounting for rate-regulated enterprises as a whole, rate-regulated enterprises are not required to record future income taxes for temporary differences that arise from assets and liabilities related to their rate-regulated activities to the extent that these future income taxes will be included in the rates charged to customers in the future and will be recoverable at that time.*

Effective January 1, 2009, the CICA issued an amendment to the CICA Handbook Section 3465 Income Taxes that reads as follows:

*3465.102 Rate-regulated enterprises should recognize future income taxes in accordance with this Section.*

*3465.103 As a result of an action by a regulator, future income taxes may be expected to be included in approved rates charged to customers in the future and to be recovered from or returned to future customers. To the extent that this is the case, an enterprise recognizes an asset or liability for that expected future revenue or reduction in future revenue. Such an asset or liability is:*

- (a) A temporary difference for which a future income tax liability or asset is recognized; and*
- (b) Presented separately from future income tax liabilities and future income tax assets, in accordance with paragraph 3465.86.*

*3465.112A The requirement for rate-regulated enterprises to recognize future income taxes, as well as a separate asset or liability for the future revenue or reduction in future revenue expected as a result of a regulator's action in respect of future income taxes, applies for fiscal years beginning on or after January 1, 2009. An enterprise gives effect to the resulting accounting policy change, without restating the financial statements of prior periods, by:*

- (a) Making a cumulative catch-up adjustment to opening retained earnings in the year of change as necessary; and*
- (b) Applying the new accounting policy to events and transactions occurring after the date of the change.*

### **Impact of CICA Handbook Guidance on TGI Financial Statements**

Beginning January 1, 2009, TGI will adopt the changes resulting from paragraphs 102, 103 and 112A of CICA Handbook section 3465 in the presentation of its financial statements.

Using December 2007 balances for illustrative purposes, the resulting changes would be:

#### **Adjustments relating to unrecognized future income taxes:**

1. An increase in Rate Regulated Assets of approximately \$245 million
2. An offsetting increase in Future Income Tax Payable of approximately \$245 million

#### **Adjustments relating to removing net-of-tax presentation from deferral accounts:**

1. An increase in Current Portion of Rate Stabilization Accounts of approximately \$30 million
2. An increase in Rate Stabilization Accounts of approximately \$6 million
3. A decrease in Other Assets (rate-regulated deferral accounts) of approximately \$8 million
4. An increase in Other Long-term Liabilities and Deferred Credits of approximately \$18 million
5. An increase in Property, Plant & Equipment of approximately \$14 million relating to Class 12 capital assets
6. An offsetting increase in Future Income Tax Payable of approximately \$34 million

In addition, note disclosure would include a discussion of the nature and tax effect of the temporary differences that give rise to future income tax liabilities.

All of the above entries are classification differences between the regulatory and financial statements and, in and of themselves, have no impact on either accounting income or rates.

### **Regulatory Treatment**

As described above, under the current regulatory treatment, the financial statement changes are not expected to have an impact on rate base as there would be both a regulatory future income tax asset and an offsetting future income tax liability included in the rate base for item 1 only. For item 2, deferral accounts would continue to be maintained on a net-of-tax basis for regulatory purposes but shown on a gross basis for financial statement purposes.

The wording of section 3465.103 states “*as a result of an action by a regulator, future income taxes may be expected to be included in approved rates charged to customers in the future and to be recovered from or returned to future customers*”. The wording of the section is unclear on whether there is a requirement for a specific order from the regulator approving the regulatory future income tax asset. However, TGI requests a written confirmation from the BCUC that TGI and the other Terasen companies can expect to recover taxes in the future as they become due, for greater certainty in meeting the Handbook requirements.

There are alternative regulatory treatments that could be followed. All of the alternatives fully comply with Generally Accepted Accounting Principles (GAAP) in 2009. To the extent that future income taxes are not collected from customers currently, as long as there is an expectation that they will be included in rates in the future, TGI would be allowed to record a regulatory future income tax asset for the amounts not currently collected. Three options for regulatory treatment are described below (Option 3 being the status quo).

#### **Option 1 – Recovery of all Current and Future Income Tax Balances**

Under this option, TGI would seek to fully recover both the opening regulatory future income tax asset and ongoing future income tax expense or recovery from customers. The amount of the regulatory asset as at the end of 2007 is approximately \$245 million. The impact of this on rates would depend on the amortization period chosen and the actual future income tax balance at the time, but based on the analysis provided in the response to the Annual Review workshop undertaking, the impact would range from a 6% increase in rates each year over a 10 year period to a 66% increase in rates if all recovered in one year. Both the unamortized balance of the regulated future income tax asset and the future income tax liability would be included in rate base. To the extent that these values will differ over time, rate base would be impacted.

#### **Option 2 – Recovery of Current and Future Income Taxes for the Current Year Only**

Under this option, TGI would start to recover future income tax expenses from customers, or refund future income tax recoveries to customers, for only the change in the future income tax liability in the current year. This methodology is not consistent with the nature of future income tax as it would result in situations where rate payers receive or pay for a reversal of a difference but never the original source of the difference. TGI would no longer have an expectation of being able to recover its future income tax liability from ratepayers, and would be required to recognize the entire opening future income tax liability as an adjustment to equity on adoption

as no regulated future income tax asset would be allowed. The future income tax liability would be included in rate base with no offsetting regulated future income tax asset, with the resulting decrease in rate base.

### Option 3 - Taxes Payable Basis

Under this option, the recovery of income taxes for regulatory purposes would remain on the taxes payable method. Future income tax liabilities for accounting purposes would reflect the differences between the tax and book values of the assets and liabilities on the financial statements, and would be offset by a regulatory future income tax asset for no income statement or rate impact. As noted in the Annual Review workshop undertaking, the future income tax liability that results from these differences will eventually be paid to the Canada Revenue Agency (CRA). When this occurs, recovery from customers will also occur, synchronizing the timing of when amounts are paid to the CRA and when those amounts are recovered from customers. Rate base would never be impacted as increases or decreases in future income tax liabilities would be exactly offset by increases or decreases in regulated future income tax assets, both would be included in rate base, and there would be no impact on rates or rate base.

### Transition to IFRS in 2011

Effective January 1, 2011, TGI and other Canadian publicly accountable entities will be transitioning to International Financial Reporting Standards (IFRS). Currently, IFRS do not have a specific exemption similar to CICA 3465.103, that allows for the creation of a Rate Regulated future income tax asset. This would result in a requirement to derecognize the existing rate regulated asset on conversion (with an offsetting charge to equity) and flow any ongoing future income tax impacts through the income statement for financial reporting purposes.

There are numerous differences between current Canadian GAAP and IFRS, of which the specific language to allow the creation of a regulated future income tax asset is just one. Further study of IFRS and ongoing discussions with national and international standard setters will resolve the final disposition of these items prior to conversion to IFRS. Because of the current lack of clarity around the ultimate accounting presentation requirements under IFRS, TGI submits it is premature to make a recommendation on how such costs should be recovered at this time. Once the outcome of these discussions has resulted in final pronouncements regarding how rate regulated enterprises must account for regulatory assets and liabilities, TGI will apply for disposition of any remaining variances. Further discussion of potential impacts of IFRS differences will be incorporated in TGI's annual review filings and/or separate submissions as the accounting transition rules are finalized.

### Summary of Proposed Regulatory Treatment

TGI proposes to continue with Option 3 for regulatory purposes for 2009 and 2010, and also requests confirmation from the BCUC that TGI and the other Terasen companies can expect to recover taxes in the future as they become due. For financial reporting purposes, TGI will continue to follow Canadian GAAP, and adopt IFRS in 2011.

## **Appendix A**

## CAARS

Inland Natural Gas Co. Ltd., Columbia Natural Gas Limited

Flow-Thru Income Tax December 20, 1983

### I. BACKGROUND

This Decision is issued following certain action taken by the Commission in Orders No. G-38-83 and G-68-83, both of which flow from a Decision of the Commission issued May 25, 1983 in respect of Rate Applications of Inland Natural Gas Co. Ltd ("Inland"); and Orders No. G-48-83 and G-69-83 issued by the Commission in respect of Columbia Natural Gas Limited ("Columbia") following a Decision of July 12, 1983 (the "Columbia Decision").

The Decision of May 25, 1983, dealing with Inland (the "Inland Decision"), deferred a decision on the question of the method of accounting for income taxes to be utilized by Inland pending the receipt of additional evidence on the potential timing of the "crossover" point for Inland and the measurement of that future liability in discounted terms. The Columbia Decision of July 12, 1983 raised the same questions related to Columbia.

The Commission will deal first with those matters raised by Orders No. G-38-83 and G-48-83 issued following the Inland Decision and the Columbia Decision respectively. In those decisions similar wording directed that "the Commission wishes to hear evidence concerning the potential timing of the crossover point for Inland and Columbia and the measurement of that future liability in discounted terms." The Orders directed the filing of such information on or before August 31, 1983 and Inland and Columbia have complied with these orders by a joint filing.

The filing by Inland and Columbia comprises a study which dealt with both the potential timing of crossover and the measurement of that future liability in discounted terms for both companies. After review the Commission is satisfied that the information requested had been provided and the Commission considered that it might be possible to conclude the outstanding matters without a further public hearing and therefore issued Orders No. G-68-83 and G-69-83. These orders, dealing with both Inland and Columbia, directed service of the August 31st filing on all intervenors of record within one week of September 23rd and requested responses from such intervenors by October 15th.

2

The Commission has been advised of full compliance with the directions contained in Orders No. G-68-83 and G-69-83 respectively. The Commission received one response to Orders No. G-68-83 and G-69-83 ; that from the industrial intervenors represented by Mr. Wallace. Those intervenors reserved a right to argue the issue in the event the Commission proposed to accept the August 31 submission of Inland as supporting a continuation of deferred tax accounting. In the absence of objection to the procedure the Commission has concluded that it may act in respect of the outstanding issues which were raised by the direction in Orders No. G-38-83 and G-48-83 without further public hearing.

The Commission has further concluded that it is now appropriate to issue a decision on the outstanding matter of the method of accounting for income tax. This decision will apply to both Inland and Columbia as the central issues are similar in respect of the utilities.

After a review of the Inland submission of August 31, 1983 the Commission finds that the validity of utilizing the crossover point as a factor in determining income tax treatment for regulatory purposes is seriously undermined by the uncertainties in estimating future capital expenditures.

The submission also utilized work done in a recent study for the C.I.C.A. dealing with the matter of discounting. The study points out some of the hazards associated with the application of discounting to tax allocation. Generally the Commission agrees with the conclusion of the submission. It appears that a meaningful application of discounting to future tax liability may be largely theoretical. In any event, it is a route the Commission will not follow in the present circumstances.

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## II. THE ISSUES

### (a) Accounting Authority

The Commission believes that the use by regulated companies of either the normalized or flow-through methods of accounting for income taxes is provided for in the C.I.C.A. Handbook and that both methods conform with the principle of matching costs and revenues as indicated in Section 3470 of the C.I.C.A. Handbook.

The C.I.C.A. Handbook prescribes normalized tax accounting in general but makes specific allowance for the taxes payable basis in the situation of a regulated utility where the regulating body only allows the recovery of taxes currently payable in the rates. In that situation the taxes payable basis matches costs and revenues provided there is "a reasonable expectation that all taxes payable in future years will be included in the approved rate or formula for reimbursement and recoverable from the customer at that time" (C.I.C.A. Handbook 3470.57).

The Commission believes, in the circumstances of Inland and Columbia, that the aforementioned proviso of "reasonable expectation" exists. It would appear therefore that recognized accounting authority would permit the use of either "normalized" or "flow-through" method of accounting for income taxes for Inland and Columbia.

### (b) Recovery of Legitimate Costs

Mr. H.W. Johnson testified that deferred tax would become a liability at "crossover" i.e. at the point in time when depreciation expense exceeds capital cost allowance (CCA) and hence current income taxes payable exceed normalized income taxes. Crossover would not occur so long as aggregate capital additions equal or exceed aggregate plant depreciation. Because assets must be replaced for the plant to be kept whole, in the long run capital expenditures will equal depreciation.

4

The incidence of inflation decreases the probability of crossover by increasing the cost of plant replacement in current dollar terms. To support his argument, Mr. Johnson adopted a study which concluded that,

"General inflation and specific price changes continue to increase the dollar amounts of replacement, generating larger dollar amounts of timing differences and making it less and less likely that deferred tax will ever be repaid." (1)

In weighing the evidence presented, the Commission has concluded that deferred tax presents a potential liability to these utilities which is more appropriately assessed in terms of probabilities than in absolutes. For Inland and Columbia, crossover is clearly not imminent. Furthermore, the correct measure of a future liability in current terms should be the discounted value of that liability. This approach has its own hazards as was discussed in the August 31 material. The Commission has therefore decided to view deferred taxes as no more than a contingent liability, for which the amount due and the timing are a matter of conjecture. Where there is a high degree of uncertainty that such costs will be incurred, the costs cannot be considered as legitimate and properly recoverable through the cost of service.

(c) Question of Inter-Generational Equity

Dr. W.R. Waters defined inter-generational equity as :

"... the assessment of whether or not pricing structure will require the customers in different time periods to pay different amounts, in real or purchasing power terms, for the same service. If the same purchasing power is required to obtain the same service in different periods, the pricing structure is considered to be equitable with respect to the various generations of users." (2)

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(1) Exhibit B, page 15 - C.S. Drummond, C.A. and S.L. Wingle, F.C.A.; C.A./Magazine, October, 1981

(2) Exhibit A, Page 4

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He argued that two factors in the rate regulation model resulted in "front end loading" i.e. a heavier charge being placed on the early users of the system than on the later users. They are :

- (i) The inflation component of the return on rate base is in fact a return of capital. Ideally, the return on rate base should be the return on capital and depreciation should be the return of capital. The inclusion of an amount to compensate for inflation results in early users of the system repaying a larger share of the capital than later users.
- (ii) The "declining rate base" phenomenon, which is the consequence of depreciation, generally, causes early users of the system to pay more for the same service than the users of later years.

Flow-through taxes result in "back end loading" which would somewhat mitigate the above mentioned factors and hence result in greater inter-generational equity.

Mr. G.C. Watkins, appearing for the Applicant, introduced evidence in the form of computer simulation runs and concluded that :

"... while the impact of inter-generational equity of tax flow-through or normalization is relatively minor, the direction of the impact depends on the particular position a utility occupies, now and in the future." (1)

The Commission accepts Dr. Water's argument that inflation and the declining rate base phenomenon contribute to front end loading and that flow-through taxes mitigate this effect to some extent. Although Mr. Watkins' evidence was inconclusive because some of his assumptions were not totally applicable to Inland and Columbia, the Commission is satisfied that Mr. Watkins did demonstrate that the income tax effect on inter-generational equity is a relatively minor one.

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(1) Exhibit F, Paragraph (j)

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(d) Cost of Collecting Deferred Tax

This Commission treats deferred taxes as a deduction from rate base and hence it is viewed as zero cost capital. Inland testified to the effect that :

"... the collection of deferred taxes resulting from additional rates to our customers will work to the advantage of the Company and its customers. I say this because the cash that will be generated from the collection of deferred taxes from customers will partially relieve us of the necessity of higher cost external financing in the near future. Higher cost financing will ultimately, of course, be reflected in rates to the customers." (1)

Mr. H.W. Johnson stated that :

"For every dollar of deferred income taxes recorded by a regulated utility it must recover from the customer two dollars (assuming a 50% tax rate) so that the after tax revenue is sufficient to provide the deferred income tax. This means that the customer of a utility on normalization not only provides the utility with funds based on the expectation that they will be needed at some future time to discharge a current tax liability but also pays an equivalent amount to federal and provincial taxing authorities the payment of which could have been deferred until some later date and part of which might not be payable at all."(2)

The Commission has concluded that although deferred taxes, when treated as a deduction from rate base, are zero cost capital to the Company, it is high cost capital to the customer for three reasons :

- (i) At the Company's income tax rate of 53.8% for each dollar of deferred tax collected, an additional \$1.16 must be collected for income taxes.
- (ii) All fees and taxes which are revenue based are increased by deferred tax and this increase is passed on to the consumers.

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(1) Exhibit E, Page 4

(2) Exhibit B, Page 16

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- (iii) Most customers pay utility bills with "after tax" dollars whereas the utility is able to obtain its funds to finance needed capital additions with "before tax" dollars.

For the foregoing reasons the cost of capital raised by this method is high and therefore unduly expensive for the customer and an inefficient source of capital for the utility.

(e) Effect of Taxation Accounting on Credit Rating

The Applicant argued that flow-through tax accounting would reduce the pre-tax interest coverage ratio. This could reduce bond rating with the resultant higher cost of, and more difficult access to, long-term debt. Dr. Waters presented the view that for a utility, coverage ratios should be calculated on after tax earnings as opposed to the common practice of using before tax earnings. He postulated that deferred tax is "earmarked" for plant additions and therefore not available to meet debt obligations in the same sense as earnings. Because the after-tax coverage ratio is the same under both flow-through and normalized tax accounting, creditors should be indifferent as to the method of tax accounting.

The Commission accepts the argument that deferred taxes are "earmarked" for plant additions, as these funds are deemed to have been spent on rate base regardless of their actual disposition. They could, however, be used to service debt if the Company were prepared to accept the lower return on equity that would result from such action. The Commission concludes that deferred taxes afford the utility some coverage protection but not to the same extent as pre-tax earnings net of deferred taxes.

The Applicant argued that since its change to normalized tax accounting, it has been able to obtain less restrictive covenants for its debt. The Commission recognizes that normalized taxes contribute to the quality of

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earnings. This, however, must be appraised in light of the financial burden that deferred taxes impose on customers. No benefit-cost analysis of this relationship was submitted in evidence.

Prior to 1977, the Company was on flow-through taxes. There was no evidence presented which would indicate that the Applicant during that time had experienced difficulty in obtaining financing for its capital requirements.

The Commission is of the opinion that creditors view the relative riskiness of a company based on a multitude of factors. These include, business risk, financial risk, regulatory risk, earnings, quality of earnings, management and long-term outlook. The Commission attempts to balance these factors in reaching a decision so that the overall risk profile of the Applicant will be favourably viewed by creditors.

(f) Impact on Shifting Patterns of Customers

Inland expressed concern that the industrial customers, which account for approximately half the sales volume, may switch to alternate fuels (eg. wood waste), if such fuels became a more economic purchase than natural gas. It was also argued that reduced sales volumes would have the effect of increasing unit cost to those customers who cannot readily change to other fuels, particularly when "crossover" might be reached and the taxes payable method was used previously.

The Commission suggests that if the Applicant continues to have concerns over shifts in, or the loss of, specific customers it should consider changes to its depreciation policy. The Commission is of the opinion that the accumulation of deferred tax credits is not a proper vehicle with which to provide or anticipate major shifts in customers. In fact the application of deferred taxes may, by causing higher consumer rates, only encourage fuel substitution and increase and accelerate shifts in customers.

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(g) Changes in the Business Environment Since 1977

Dr. Waters testified that the business environment in which the Applicant operates today is significantly different from that which existed in 1977 when the Commission allowed Inland to adopt deferred taxes. The two principal changes he raised were :

- (i) fiscal 1983 when compared to 1977 is experiencing the most severe economic downturn in the last 50 years,
- (ii) fiscal 1983 saw interest rates rise to levels close to 20%, a phenomenon which has been embedded in the Inland debt structure by the issue of a 15 year debenture at 18 1/4%.

By adopting flow-through taxes at this time, front-end loading will be reduced resulting in lower tariffs. Lower energy costs are a factor in assisting industrial customers to compete for markets .

The Commission accepts the view that the economic circumstances of industrial and other customers should be taken into consideration in rendering a Decision on this question.

III. DECISION

For the reasons as discussed above, the Commission has found that the public interest will be best served with a return to "flow-through" accounting for income tax purposes for Inland and Columbia.

In order to allow time for the Applicant and the financial community to effect the transition with minimum disruption, the Commission will direct that both Inland and Columbia change to "flow-through" effective February 1, 1984.

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The balance of deferred taxes as at January 31, 1984 will remain on the books of both Companies and will be applied as a reduction to rate base.

DATED at the City of Vancouver, in the Province of British Columbia, this 20th day of December, 1983.

M. TAYLOR, Chairman

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R.J. LUDGATE, Commissioner

IN THE MATTER OF the Utilities Commission Act,  
S.B.C. 1980, c. 60, as amended

and

IN THE MATTER OF Inland Natural Gas Co. Ltd.

and

IN THE MATTER OF Order No. G-38-83 as  
varied by Order No. G-68-83 ;

and

IN THE MATTER OF Columbia Natural Gas Limited

and

IN THE MATTER OF Order No. G-48-83 as  
varied by Order No. G-69-83

DECISION

December 20, 1983

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## APPEARANCES

C.B. Johnson  
Patrick Lloyd

Inland Natural Gas Co. Ltd.

T.D. Tutti

Cominco Ltd.

R.B. Wallace

Council of Forest Industries  
B.C. Forest Products Ltd.  
B.C. Timber Ltd.  
Caribou Pulp and Paper Company Ltd.  
Prince George Pulp and Paper Ltd.  
Weyerhaeuser Canada Ltd.

K.E. Gustafson

Consumers Glass Company Limited  
Quesnel River Pulp Company

M.F. Shoemaker

B.C. Hydro & Power Authority

C.P. Griffin  
Roy Dyce

Pacific Northern Gas Ltd.

R.S. Morrice

B.C. Coal Limited

C.A. Jeffery

City of Prince George

R.J. Gibbs  
B.J. Wallace

Commission Counsel

---

R.J. Fletcher  
J.A. Greiner  
W.J. Grant

Commission Staff

W.R. Harper

Hearing Officer

Allwest Reporting Ltd.

Court Reporters

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