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October 30, 2009

Via Email
Original via mail

Ms. Erica M. Hamilton
Commission Secretary
BC Utilities Commission
Sixth Floor, 900 Howe Street, Box 250
Vancouver, BC V6Z 2N3

Dear Ms. Hamilton:

**Re: *FortisBC Inc. ("FortisBC") 2010 Revenue Requirements
Response to Information Requests***

Please find attached FortisBC's response to Information Requests from the British Columbia Utilities Commission ("Commission"), British Columbia Old Age Pensioners' Association, British Columbia Municipal Electrical Utilities, and Okanagan Environmental Industry Alliance.

FortisBC's response to Q 31.3 of the Commission's Information Request is being filed in confidence as it contains forecast load data provided by FortisBC's industrial customers.

Sincerely,

A handwritten signature in blue ink, appearing to be "DS" with a long horizontal flourish underneath.

Dennis Swanson
Director, Regulatory Affairs

Project No. 3698570: Application for 2010 Revenue Requirement

Requestor Name: British Columbia Utilities Commission

Information Request No: 1

Request Date: October 16, 2009

Response Date: October 30, 2009

- 1 **1.0** **Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.0,**
2 **Overview, Table 3.0, p. 3**
- 3 **Q1.1** **Please provide a Table in the form of Table 3.0, summarizing the 2008 forecast (at time of**
4 **the 2008 application), approved, updated (at the time of the 2009 application) and actual**
5 **values, the 2009 forecast, approved and updated values, and the 2010 forecast values.**
- 6 **A1.1** **Please see the table below.**

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Request Date: October 16, 2009
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	2008 Forecast History & Actual						2009 Forecast History				2010 Forecast
	1-Nov-07 RR 08 Updated Forecast 2008	16-Nov-07 RR 08 NSA Approved 2008	1-May-08 BCUC Approval Interim Rate Increase Effective 1st May 2008	3-Nov-08 RR 09 Updated Forecast 2008	19-Nov-08 RR 09 NSA Forecast 2008	31-Dec-08 Actual 2008 Year End Values (Annual Rpt. 2008)	3-Nov-08 RR 09 Updated Forecast 2009	19-Nov-08 RR 09 NSA Approved 2009	1-Sep-09 BCUC Approval Interim Rate Increase Effective 1st Sept 2009	1-Oct-09 RR 10 Prelim Forecast 2009	1-Oct-09 RR 10 Prelim Forecast 2010
1 Sales Volume (GWh)	3,166	3,087	3,087	3,064	3,064	3,087	3,107	3,107	3,107	3,126	3,174
2 Rate Base	823,434	822,847	822,847	802,649	802,807	802,566	909,553	907,977	907,977	872,399	975,827
3 Return on Rate Base	7.54%	7.47%	7.47%	7.63%	7.63%	7.62%	7.40%	7.38%	7.38%	7.69%	7.28%
4											
5 REVENUE DEFICIENCY											
6											
7 POWER SUPPLY											
8 Power Purchases	70,840	67,403	68,538	64,629	64,629	66,010	71,476	69,448	70,944	70,201	77,224
9 Water Fees	7,858	7,858	7,858	7,863	7,863	7,878	8,700	8,286	8,480	8,563	9,064
10	78,698	75,261	76,396	72,492	72,492	73,888	80,176	77,734	79,424	78,764	86,288
11 OPERATING											
12 O&M Expense	45,310	45,310	45,310	44,875	44,875	44,725	46,997	46,573	46,573	46,573	47,883
13 Capitalized Overhead	(9,062)	(9,062)	(9,062)	(9,062)	(9,062)	(9,062)	(9,399)	(9,315)	(9,315)	(9,315)	(9,577)
14 Wheeling	3,622	3,622	3,622	3,624	3,624	3,655	4,010	4,010	4,010	4,013	4,149
15 Other Income	(5,030)	(5,030)	(5,030)	(5,093)	(5,093)	(5,035)	(4,915)	(4,915)	(4,915)	(5,441)	(4,855)
16	34,840	34,840	34,840	34,344	34,344	34,283	36,692	36,353	36,353	35,830	37,601
17 TAXES											
18 Property Taxes	11,176	11,176	11,176	11,023	11,023	11,036	11,561	11,561	11,561	11,477	12,548
19 Income Taxes	4,403	3,989	3,989	5,551	5,551	5,869	3,671	4,354	4,354	4,121	3,758
20	15,579	15,165	15,165	16,574	16,574	16,905	15,233	15,915	15,915	15,598	16,306
21 FINANCING											
22 Cost of Debt	31,784	31,762	31,762	30,400	30,400	30,163	34,850	34,803	34,803	33,747	36,784
23 Cost of Equity	30,269	29,688	29,688	30,868	30,868	31,001	32,416	32,215	32,215	33,310	34,271
24 Depreciation and Amortization	34,373	34,356	34,356	34,015	34,015	34,016	37,492	37,504	37,504	37,379	41,978
25	96,426	95,806	95,806	95,283	95,283	95,180	104,758	104,522	104,522	104,436	113,034
26											
27 Prior Year Incentive True Up	22	22	22	(1,284)	(1,284)	(1,284)	173	173	173	(1,443)	(322)
28 Flow Through Adjustments	(42)	(42)	(42)	435	435	625	(435)	(435)	(435)	933	(933)
29 AFUDC / CWIP shortfall	895	895	895	-	-	-	-	-	-	-	-
30 ROE Sharing Incentives	(2,159)	(2,159)	(2,159)	1,181	1,181	1,314	(1,181)	(1,181)	(1,181)	1,095	(1,095)
31	(1,284)	(1,284)	(1,284)	332	332	654	(1,443)	(1,443)	(1,443)	584	(2,349)
32											
33 TOTAL REVENUE REQUIREMENT	224,259	219,788	220,923	219,025	219,025	220,910	235,416	233,081	234,771	235,212	250,879
34											
35 Carrying Cost on Rate Base Deferral Account	27	27	27	-	-	-	-	-	(8)	-	-
36 ADJUSTED REVENUE REQUIREMENT	224,286	219,815	220,950	219,025	219,025	220,910	235,416	233,081	234,763	235,212	250,879
37 LESS: REVENUE AT APPROVED RATES	216,829	213,694	213,694				222,847	222,847	222,847		239,873
38 REVENUE DEFICIENCY for Rate Setting	7,457	6,121	7,256				12,569	10,234	11,916		11,006
39											
40 RATE INCREASE	3.4%	2.9%	3.4%				5.6%	4.6%	5.3%		4.6%

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1 **Q1.2 Does the value of (322) in Line 27 of Table 3.0 for the 2010 forecast imply an over-**
2 **recovery in the 2009 revenues?**

3 A1.2 No. Under the PBR mechanism, rates are set effective January 1 based on forecast financial
4 results at the time of the Negotiated Settlement Process. The true-up of the 2008 incentive is
5 the difference between the forecast incentive amount based on September 30, 2008 financial
6 results and the final 2008 year-end financial results.

2.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.1.1, Power Purchase Expense, p. 4

Q2.1 Please explain why the amount of FortisBC energy was lower in 2007 (as inferred from the "Actual 2008" value in Line 1 of Table 3.1.2) and is lower in 2009 and 2010 as compared to the energy in 2008 as shown in Line 1 of Table 3.1.1.

A2.1 CPA entitlements are approximately 1,591 GWh a year. The following table explains the variances around entitlement use for 2007 through 2010.

	Entitlement (approximately) GWh	Unit Outages GWh	Account Storage GWh	Total Entitlement Use (Approximately) GWh
2007	1,591	(36)	(58)	1,497
2008	1,594	(7)	21	1,608
2009	1,591	(10)	(28)	1,553
2010	1,591	(4)	6	1,593

Q2.2 Why is DSM shown as a power purchase expense in Table 3.1.1, and is the cost of DSM included in Lines 7 and 8 of Table 3.1.1? How is the energy amount associated with DSM determined?

A2.2 DSM is included as a resource to meet anticipated future Company load. Therefore, in table 3.1.1, line 4, Total System Load (before DSM savings) refers to the expected Company load if DSM activities were to cease. Line 6, Total System Load (including DSM savings) refers to the actual or expected Company load. Once the load is actual, DSM is zero for this table as DSM activities can no longer reduce load that has already occurred.

- 1 **3.0** The cost of the DSM programs is not included in lines 7 and 8 of Table 3.1.1. Reference:
2 Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.2.1, 2010
3 Operating and Maintenance (“Gross O&M”) Expense, Table 3.2.1, p. 6
- 4 **Q3.1** Please provide a Table in the form of Table 3.2.1, summarizing the 2008 forecast (at time
5 of the 2008 application), approved, updated (at the time of the 2009 application) and
6 actual values, the 2009 forecast, approved and updated values, and the 2010 forecast
7 values.
- 8 **A3.1** Please see the table below:

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1 O&M, Formula-Driven						
2 Base O&M Cost per Customer	382.48	382.48	Not Applicable	382.48	382.48	379.04
3 Consumer Price Index (British Columbia)	2.0%	2.0%		2.1%	2.1%	2.1%
4 Productivity Improvement Factor	-2.00%	-2.00%		-2.00%	-3.00%	-1.50%
5 O&M per Customer, Escalated	382.48	382.48		382.86	379.04	381.31
6						
7 Average Number of Customers	109,335	109,335		110,921	110,921	112,051
8						
9						
10 Base O&M	41,818	41,818		42,467	42,043	42,726
11						
12 Pension and Post-Retirement Benefits	2,739	2,739		3,318	3,318	3,945
14 Trail Office Lease	753	753		1,212	1,212	1,212
15 Mandatory Reliability Standards (NERC)	-	-	-	-	-	-
16 Total Operating and Maintenance Expense for Base O&M	45,310	45,310	44,725	46,997	46,573	47,883
17						
19 Capitalized Overhead	(9,062)	(9,062)	(9,062)	(9,399)	(9,315)	(9,577)
20 Net Operating & Maintenance Expense	36,248	36,248	35,663	37,598	37,258	38,306
21						
22 Number of Customers						
23 Opening Count	107,905	107,905	107,724	109,928	109,928	111,190
24 Ending Count	110,765	110,765	109,719	111,913	111,913	112,911
25 Average Number of Customers	109,335	109,335	108,722	110,921	110,921	112,051

4.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.2.4, Wheeling, Table 3.2.4, p. 8

Q4.1 Please provide a Table in the form of Table 3.2.4, summarizing the 2008 forecast (at time of the 2008 application), approved, updated (at the time of the 2009 application) and actual values, the 2009 forecast, approved and updated values, and the 2010 forecast values.

A4.1

**Table 2 - D
Wheeling**

	Application 2008	Approved 2008	Updated 2008	Actual 2008	Application 2009	Approved 2009	Updated 2009	Application 2010
1 Wheeling Nomination	(MW)							
2 Okanagan	1,965	1,965	1,965	1,965	2,115	2,115	2,115	2,160
3 Creston	402	402	402	402	420	420	420	420
4 Expense	(\$000s)							
5 Vernon/Okanagan	3,174	3,175	3,175	3,223	3,471	3,529	3,529	3,661
6 Creston	423	423	423	425	449	457	457	464
7 Other	94	24	18	7	24	24	28	24
8 Total Wheeling Expense	3,691	3,622	3,616	3,655	3,944	4,010	4,013	4,149

- 1 **5.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.2.5, Other**
2 **Income, Table 3.2.5, p. 9**
- 3 **Q5.1 Please provide a Table in the form of Table 3.2.5, summarizing the 2008 forecast (at time**
4 **of the 2008 application), approved, updated (at the time of the 2009 application) and**
5 **actual values, the 2009 forecast, approved and updated values, and the 2010 forecast**
6 **values.**
- 7 **A5.1 Please see the table below.**

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1 Apparatus and Facilities Rental							
2 Electric Apparatus Rental	1,775	1,775	2,283	2,281	2,133	2,875	2,288
3 Lease Revenue	143	143	168	169	171	169	136
4	1,918	1,918	2,451	2,450	2,304	3,044	2,424
5 Contract Revenue							
6 Waneta Management Fee	228	228	343	368	238	311	265
7 Waneta Management Fee Capital	647	647	175	170	138	2	106
8 Waneta Carrying Costs	94	94	95	94	94	94	94
9							
10 Brilliant Management Fee (including BTS)	168	168	147	139	166	194	259
11 Brilliant Management Fee Capital	250	250	319	314	299	327	228
12							
13 Fortis Pacific Holdings Inc.	568	568	543	516	641	534	572
14	1,955	1,955	1,622	1,601	1,576	1,461	1,524
15 Miscellaneous Revenue							
16 Connection Charges	551	551	520	469	545	531	495
17 NSF Cheque Charges	11	11	9	9	9	11	9
18 Sundry Revenue	228	228	171	175	150	176	182
19	790	790	700	652	704	718	686
20							
21 Investment Income	367	367	320	332	331	219	220
22							
23 Total	5,030	5,030	5,093	5,035	4,915	5,441	4,855

Q5.2 Please explain the reasons behind the 26% increase in the 2009 Electric Apparatus Rental as compared to 2008 and the subsequent 20% decrease in 2010. Identify from whom and in what amounts this income was collected.

A5.2 The 26% increase in the 2009 Electric Apparatus Rental over 2008 and the subsequent 20% decrease in 2010 are due to one time revenues collected in 2009 that are not applicable in the 2010 forecast. These items are:

Pole Audit Penalty Revenues	\$407,000
True-up Invoice for 2008 actual versus estimated billing (pursuant to the joint use agreements)	\$155,000

In addition, the pole attachment rate for 2010 is forecast lower than in 2009 due to an anticipated reduction in the cost of capital.

Of the \$2.875 million forecast for 2009 approximately 82% (\$2.4 million) is billed to Telus; 14% is billed to Shaw Cable (\$0.4 million); and the balance is billed to smaller cable companies.

Q5.3 Please explain the reasons for the decreasing amount of the Waneta Management Fee and the increasing amount of the Brilliant Management Fee.

A5.3 Waneta Management Fee

Subsequent to the 2009 revenue requirement filing, Teck Resources reduced the amount of budgeted capital work at Waneta for 2009 and also requested that some of the Non-Routine O&M work previously planned be deferred to later years. As a result, there was an overall decrease in Waneta Management Fee revenue.

Brilliant Management Fee

a) Brilliant Management Fee - In 2008, FortisBC resources were focused on Brilliant Capital projects undertaken by FortisBC. The overall increase in Brilliant Management Fee revenue is a direct result of higher budgeted maintenance work and less capital work, in both 2009 and 2010 compared to 2008.

b) Brilliant Management Fee Capital - The 2010 forecast for Brilliant Management Fee Capital revenue was reduced as the forecast capital work involves major contract services from third parties, with less involvement of FortisBC man hours. Under the terms of the Brilliant Management Agreement, large capital contract services do not attract management fees;

therefore the 2010 Management Fee Capital forecast is less than 2008 and 2009.

Q5.4 Please identify and describe the activities captured in the Fortis Pacific Holdings Inc. line item in Line 13 of Table 3.2.5.

A5.4 Line 13 of Table 3.2.5 reflects the BCUC-approved transfer price profit margin that is charged to non-regulated businesses, for the use of FortisBC resources. These activities are associated with the subcontract agreements between FortisBC and Fortis Pacific Holdings Inc. for work at the City of Kelowna, the Arrow Lakes and Brilliant Expansion plants. Also included in this line is the profit margin on services for the Walden Power Plant (a non-regulated subsidiary of FortisBC Inc.)

6.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirement, Section 3.4.3, Depreciation and Amortization, p. 16; and Tab 4, Table 1-C, Accumulated Provision for Depreciation and Amortization (2010), p. 13

“Depreciation Expense for 2010 has been calculated according to the rates agreed to in the 2006 NSA.”

Q6.1 Please confirm that the last depreciation study establishing the current depreciation rates were completed in 2004 by Gannet Fleming.

A6.1 The last depreciation study used to establish the current depreciation rates was completed in 2005 by Gannett Fleming. The study used plant in service data as at December 31, 2004. The final depreciation rates for certain asset classes were negotiated as part of the 2006 NSA.

Q6.2 Is FortisBC confident that the current depreciation rates are an appropriate reflection of the remaining useful life of all assets during the NSP period?

A6.2 FortisBC believes the current depreciation rates as agreed to in the 2006 NSA and 2008 NSA are still appropriate. The Company’s depreciation rates are developed by an independent third party valuation firm, Gannett Fleming. The method used to determine the depreciation rates is derived from statistical regression curves, using input such as average life of assets, expected retirements, and estimated remaining life. The majority of the assets are long-lived, and in the absence of a significant event affecting the inputs to the study the depreciation accrual rates would generally be expected to stay the same from year to year.

Q6.3 Please compare the composite depreciation rate of 3.2% (Tab 4, p. 13) with other comparable electric utilities in Canada (i.e. FortisAlberta, ATCO Electric Ltd, SaskPower).

“FortisBC has engaged an external consultant to conduct an updated depreciation study of its plant assets for IFRS purposes, which is scheduled to be complete by the end of 2009. The new depreciation rates are expected to increase depreciation for IFRS purposes in 2010, but will not be included in the 2010 Revenue Requirements.” (Appendix B, P. 12)

A6.3 As requested, the composite depreciation rates of comparable electric utilities in Canada have been included below. It should be noted that FortisAlberta operates distribution assets only, while ATCO Electric operates transmission and distribution assets only. SaskPower is a vertically integrated utility; however it owns coal-fired, natural gas, and wind generating facilities in addition to hydroelectric generating stations. This means that the suggested electric utilities

for comparison purposes have different operations compared to FortisBC, and therefore have potentially different composite depreciation rates. The Company has also included Newfoundland Power for comparative purposes since it is a vertically integrated utility with hydroelectric generating stations that is similar in size to FortisBC.

Entity	Composite Depreciation Rate
FortisAlberta Inc.	3.92% ¹
ATCO Electric Ltd.	3.33% ²
SaskPower	
2008 Depreciation / 2008 Cost	3.38% ³
2008 Depreciation / 2007 Cost	3.50% ⁴
Newfoundland Power Inc.	3.40% ⁵
FortisBC Inc.	3.20%
¹ 2010/2011 Distribution Tariff Application ² communication with ATCO Electric - includes Transmission, Distribution, General Plant & Equipment and a small amount of Isolated Generation Plant. ³ 2008 Audited Annual Financial Statements - calculated as the rate of 2008 Depreciation per 2008 Capital Cost ⁴ 2008 Audited Annual Financial Statements - calculated as the rate of 2008 Depreciation per 2007 Capital Cost ⁵ 2010 General Rate Application	

Q6.4 Since FortisBC does not intend to adopt these new depreciation rates in 2010, then why is a deferral account required for the anticipated depreciation changes in 2010?

A6.4 As indicated in Appendix B, on page 2, lines 20 to 24, "the Company's January 1, 2011 changeover date to International Financial Reporting Standards ("IFRS") will require the restatement, for comparative purposes, of amounts reported by the Company for the year ended December 31, 2010, and of amounts reported on the Company's opening IFRS balance sheet as at the transition date of January 1, 2010." This means that deferral amounts relating to the differences between current Canadian GAAP, which is generally used for regulatory purposes, and current IFRS will begin accumulating on January 1, 2010. The 2011 fiscal year is the first time in which FortisBC will be required to publish complete external financial statements prepared under IFRS; however it will also be necessary to present the 2010 comparatives at this time.

In order to avoid an immediate impact on customer rates, FortisBC has requested specific

regulatory approval to recognize certain Non-Rate Base Deferral Accounts related to the identified differences in accounting between GAAP and IFRS. The inclusion of these items in the 2010 Revenue Requirements assists in demonstrating that the BCUC has provided formal approval of collection of the amounts in the future, which is integral to recognizing deferrals for external financial reporting under the Exposure Draft for Rate-regulated Activities released by the International Accounting Standards Board ("IASB") on July 23, 2009.

One of these Non-Rate Base Deferrals, included in Appendix B as item X, Depreciation Changes for Property, Plant & Equipment, results from the difference that exists between the depreciation rates used for regulatory purposes and those rates used for IFRS external financial reporting purposes in 2010 and 2011. The 2010 Preliminary Revenue Requirements uses the depreciation rates that were agreed upon in the Settlement Agreement ("2006 NSA") in the 2006 Revenue Requirements. The 2010 IFRS comparative figures will use depreciation rates that will be derived from an updated depreciation study which complies with IFRS. There is the possibility that the Company would consider the potential integration of the updated IFRS compliant depreciation study rates with rate-setting in the future.

Q6.5 The above statement indicates that the current depreciation rates need to be increased in order to reflect the remaining useful life of the assets. Please comment on whether FortisBC believes that the result of having under-depreciated assets on the Company's regulatory schedules is an indication that rate base in past year may have been too high.

A6.5 For rate-setting purposes the Company does not believe that its assets were under depreciated and does not believe that rate base was too high in prior years. As stated in the response to Q6.2 above, the Company's depreciation rates are developed by an independent third party valuation firm and the depreciation rates and value of rate base agreed upon in the 2006 NSA.. Depreciation rates, by nature, are estimates. Depreciation expense is a method of distributing fixed capital costs, less net salvage, over a period of time. A common way to view depreciation is that it represents the consumption of the future economic benefits embodied in an asset. The economic benefit of FortisBC's assets is directly associated with the depreciation that is recoverable through rates. However, for IFRS purposes the Company does expect depreciation rates to increase prospectively beginning on January 1, 2010 due to the requirements of International Accounting Standard ("IAS") 16, *Property, Plant and Equipment*.

Q6.6 What is the anticipated effect on FortisBC's asset values due to the anticipated increase in depreciation rates?

A6.6 As stated in Appendix B at page 12, line 15, the depreciation study is expected to be completed by the end of 2009 and therefore the anticipated effect has not been finalized at this time. In order to provide a sense of magnitude, the Company has estimated that depreciation expense will increase by approximately \$7.5 million in 2010, but notes that the estimated amount of \$7.5 million will likely differ from actual amounts due to factors mentioned on page 5 of Appendix B, as well as the completion of an updated IFRS compliant depreciation study before the end of 2009. Property, plant and equipment would decrease by \$7.5 million for IFRS purposes. However, the approximate \$7.5 million increase to depreciation expense would be deferred as a Non-Rate Base Deferral Account related to the identified difference in accounting for depreciation between GAAP, which is generally used for regulatory purposes, and IFRS. In 2010, the total of the Non-Rate Base Deferral Account and the value of Property, Plant and Equipment under IFRS should approximate the balance of property, plant and equipment calculated for regulatory purposes.

7.0 References: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.4.2, Cost of Equity, pp. 15-16

Fortis BC proposes to adjust its ROE following issuance of the Commission decision on Terasen Utilities ROE application. Terasen argued in that hearing that its risk profile had increased as a result of government energy and climate change policies that favour electricity and discourage fossil fuel usage.

Q7.1 Please discuss whether the risk profile of FortisBC remains at 40bp above TGI in current and future circumstances.

A7.1 FortisBC's risk premium was confirmed to be 40 basis points above the benchmark low risk utility (Terasen Gas Inc.) following an oral public hearing concerning its 2005 Revenue Requirements Application. As this premium is applicable for the term of the PBR Plan, pursuant to the 2006 NSA as approved by Order G-58-06, at this time FortisBC has not prepared evidence in regard to its current or future risk relative to Terasen Gas. The evidence in the Terasen Utilities' proceeding is that risk to utilities in the province is increasing. The Company believes that its risk profile warrants a premium of at least 40 basis points, relative to Terasen Gas.

Q7.2 If the TGI-ROE panel determines that TGI's risk has increased, what "low risk benchmark utility" would FortisBC compare itself to?

A7.2 FortisBC does not consider that, if the TGI-ROE panel determines that TGI's risk has increased, it necessarily follows that Terasen Gas would not remain the benchmark utility for the purpose of applying FortisBC's risk premium. In its final submission in the Terasen Utilities proceeding, FortisBC requested an Order of the Commission that the TGI ROE remain the benchmark ROE, for purpose of setting FortisBC's ROE.

Q7.3 Shouldn't the issues of possibly changing the ROE for FortisBC be considered in a separate proceeding after issuance of the TGI-ROE decision?

A7.3 FortisBC is not requesting a change in the method of determining its ROE in this Application. A change to FortisBC's risk premium would be the subject of a separate proceeding.

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- 1 **8.0** **Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.7.1,**
2 **Capital Expenditures, Table 3.7.1, p. 21**
- 3 **Q8.1** **Please provide a Table in the form of Table 3.7.1, summarizing the 2008 forecast (at time**
4 **of the 2008 application), approved, updated (at the time of the 2009 application) and**
5 **actual values, the 2009 forecast, approved and updated values, and the 2010 forecast**
6 **values.**
- 7 **A8.1** **Please refer to table below.**

Project No. 3698570: Application for 2010 Revenue Requirement**Requestor Name:** British Columbia Utilities Commission**Information Request No:** 1**Request Date:** October 16, 2009**Response Date:** October 30, 2009

	2008 Forecast History & Actual					2009 Forecast History			2010 Forecast
	1-Nov-07	16-Nov-07	3-Nov-08	19-Nov-08	31-Dec-08 Actual 2008 Year End (Annual Rpt. 2008)	3-Nov-08	19-Nov-08	1-Oct-09	1-Oct-09
	RR 08 Updated Forecast 2008	RR 08 NSA Approved 2008	RR 09 Updated Forecast 2008 (000s)	RR 09 NSA Forecast 2008		RR 09 Updated Forecast 2009	RR 09 NSA Approved 2009 (000s)	RR 10 Prelim Forecast 2009	RR 10 Prelim Forecast 2010 (000s)
GENERATION									
Growth	-	-	-	-	-	-	-	-	-
Sustaining	16,521	16,521	17,324	17,324	16,195	22,060	22,060	20,225	19,103
	16,521	16,521	17,324	17,324	16,195	22,060	22,060	20,225	19,103
TRANSMISSION & STATIONS									
Growth	61,659	61,659	42,753	42,753	38,677	69,030	69,030	44,382	81,653
Sustaining	11,497	10,297	8,010	8,010	8,284	11,644	11,644	7,638	10,174
	73,156	71,956	50,763	50,763	46,961	80,674	80,674	52,020	91,827
DISTRIBUTION									
Growth	19,728	19,228	27,227	26,927	28,017	27,010	27,010	17,954	23,344
Sustaining	12,565	11,265	8,920	9,220	8,475	15,551	10,979	11,651	14,525
	32,293	30,493	36,147	36,147	36,492	42,561	37,989	29,605	37,869
TELECOM, SCADA, PROTECTION & CONTROL									
Growth	1,902	1,902	1,227	1,227	1,108	1,779	1,779	2,066	1,664
Sustaining	1,491	1,491	1,881	1,881	1,764	864	864	800	619
	3,393	3,393	3,108	3,108	2,872	2,643	2,643	2,866	2,283
GENERAL PLANT	9,438	9,438	10,054	10,054	9,058	27,784	11,966	9,237	11,588
TOTAL	134,800	131,800	117,395	117,395	111,579	175,721	155,331	113,953	162,670
RECONCILIATION TO CAPITAL ADDITIONS									
Demand Side Management Additions	1,590	1,629	1,569	1,800	1,858	2,568	2,568	2,513	2,826
Less: Contributions in Aid of Construction	(7,977)	(7,977)	(12,342)	(12,342)	(11,737)	(13,776)	(13,776)	(6,500)	(8,400)
TOTAL	128,413	125,452	106,622	106,853	101,700	164,513	144,123	109,966	157,096

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9.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.7.2, Deferred Charges, Preliminary and Investigative Charges, p. 23

Q9.1 Please provide a detailed listing of the projects having amounts being carried in Preliminary and Investigative Charges account, the amount for each project, the date when charges were first incurred, and the anticipated date when each charge will be transferred to capital.

A9.1

Potential and Investigative Charges / Capital Project Nomenclature	Balance at Dec. 31, 2008	Additions and Transfers	Amortized / Transferred to Other Accounts	Balance at Dec. 31, 2009	Additions and Transfers	Amortized / Transferred to Other Accounts	Balance at Dec. 31, 2010	Dates when Charged First Incurred	Expected Year of Transfer to Capital	Capital Project to be transferred to
2008 Facilities Study	30	20	0	50	0	(50)	0	Nov 2008	2011+	Future Facilities Projects
Bennoulin	447	0	(424)	23	0	(23)	0	March 2007	2009	Bennoulin Distribution Source
Automated Vehicle Locator	0	150	0	150	0	(150)	0	April 2009	2010	Vehicles
2009-14 Facilities Capital Plan	0	110	(110)	0	0	0	0	March 2009	2009	Facilities
Ellison Contingency Plan	0	15	0	15	0	(15)	0	April 2009	2009	Ellison Distribution Source
P4 U2 CPCN	0	55	0	55	0	(55)	0	May 2009	2009	Corra Linn U2 Life Extension
P2 Repowering Project	0	213	0	213	0	(213)	0	Feb 2009	2012+	P2 Repowering Project
P1-P4 Sustaining Capital	43	48	0	91	0	(91)	0	March 2006	2011+	Multiple small future sustaining Projects
Potential Generation Projects	118	199	0	317	10	0	327	Nov 2006	2013+	Future Generation Projects
Mandatory Reliability Compliance	26	143	0	169	2,230	(2,399)	0	Sept 2009	2010	Relevant Capital Projects (IT, Facilities, etc.)
Total	664	953	(534)	1,083	2,240	(2,996)	327			

10.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.7.2, Deferred Charges, Deferred Regulatory Expenses, pp. 23-26

Q10.1 Please identify the amount of regulatory costs associated with preparing the Umbrella Agreement and Power Coordination Agreement between FortisBC and the City of Nelson, and the costs incurred by FortisBC associated with the regulatory processes triggered by the filing of those agreements. Where have these costs been allocated?

A10.1 The regulatory costs associated with preparing the Umbrella Agreement ("UA") and the Power Coordination Agreement ("PCA") were negligible. The deferred costs associated with BC Hydro's ensuing application to amend the Power Purchase Agreement are approximately \$0.087 million (\$0.125 million before tax), as identified at Tab 3, page 24.

Q10.2 Please explain why the proposed Umbrella Agreement and Power Coordination Agreement were prudent endeavours from the customers perspective, and why such arrangements would not be expected to harm the relationship with BC Hydro.

A10.2 The Umbrella Agreement and Power Coordination Agreement were entered into with a customer of FortisBC pursuant to the terms of its Tariff Supplement No. 7 and did not conflict with the terms of the then-existing Power Purchase Agreement ("PPA") with BC Hydro (as the PPA was required to be amended in order to prevent the PCA from taking effect). FortisBC has an obligation to serve its customers in accordance with its Electric Tariff and other contracts to which it is a party. As the UA and PCA were structured to ensure no harm to FortisBC's customers the agreements were prudent endeavours.

Furthermore, as the existing PPA did not preclude FortisBC from entering into the PCA, FortisBC did not anticipate "harm to the relationship with BC Hydro".

Q10.3 Please explain why the costs associated with the BC Hydro application to amend Rate Schedule 3808 should be transferred to rate base.

A10.3 The costs associated with the BC Hydro application to amend Schedule 3808 were prudently incurred costs to response to an application relating to FortisBC's customers, Electric Tariff and Schedule 3808. The costs associated with the BC Hydro application should be treated consistently with the costs of other regulatory activities, which are included in rate base.

Q10.4 Please discuss if the regulatory costs associated with the BC Hydro Waneta Transaction Application should be entirely to the account of customers.

A10.4 The costs should be to the account of customers because FortisBC's participation in the Waneta Transaction is for the purpose of determining if the proposed transaction is in the public interest, and in particular the interests of FortisBC's customers. The proposed transaction has the potential to impact FortisBC and its customers in a number of ways, including:

- FortisBC is a customer of BC Hydro and is impacted by BC Hydro's rates;
- FortisBC is an historic purchaser of capacity blocks generated by the Waneta Plant;
- FortisBC is a party to the Canal Plant Agreement, which governs the operation of the Waneta Plant; and
- FortisBC provides operation and maintenance services to the Waneta Plant and the associated revenue offsets Revenue Requirements.

Q10.5 Please discuss how FortisBC's participation in Terasen Utilities Return on Equity process is of benefit to customers.

A10.5 FortisBC's Return on Equity is determined by reference to Terasen Gas' ROE. The outcome of the Terasen Utilities' application has the potential to directly impact FortisBC's ROE. A fair Return on Equity is a benefit to the customers as it is a legal obligation and necessary to maintain the financial health of the Company by enabling it to attract the necessary debt and equity financing to support its business.

Q10.6 Please explain why the estimate cost of \$533,000 for FortisBC's Cost of Service and Rate Design Application shouldn't be included in that proceeding instead of this current Application.

A10.6 FortisBC is not requesting recovery of the forecast costs of the Cost of Service Analysis ("COSA") and Rate Design Application ("RDA"). Following completion of the COSA/RDA proceeding, FortisBC will apply for disposition of the costs.

11.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.7.2, Deferred Charges, pp. 22-31

Q11.1 The attached spreadsheet (BCUC Appendix 1) attempts to breakout FortisBC's deferred charges by item. Please fill out all the blanks in the spreadsheet (beginning balances, additions in 2010, amortization and transfers in 2010, ending balance 2010). Please include references for items that have already obtained Commission approval, where appropriate. Please ensure that the totals reconcile with the proposed summary on Table 3.7.2 in Tab 3, p. 22.

A11.1

Project	Balance at Dec.31, 2009	Additions & Transfers	Amort./ Transfer	Amort in 2010	Balance at Dec. 31, 2010	Approval to Defer	Approval to Amortize	
1 Demand Side Management	8,233	2,826	-	-	2,349	8,710	G-11-09	G-58-06
2								
3 Preliminary and Investigative Charges	1,084	2,240	-	2,996	-	328	Uniform System of Accounts	
4								
5 Deferred Regulatory Expense:								
6 Flow Through & ROE Sharing Mechanism	(2,349)	-	2,349	-	-	G-193-08	Requested	
7 2009 Revenue Requirement	30	-	-	(30)	-	G-147-07	Requested	
8 2010 Revenue Requirement	35	-	-	-	35	G-193-08		
9 2011 Revenue Requirement	-	36	-	-	36	Requested		
10 COSA & Rate Design Application	299	234	-	-	533	G-147-07		
11 BC Hydro Application to Amend Rate 3808	87	-	-	(29)	58	G-193-08	Requested	
12 Section 5 Provincial Transmission Inquiry	70	72	-	-	142	Requested		
13 Renewal of BC Hydro PPA	154	-	-	-	154	G-193-08		
14 BC Hydro Waneta Transaction Application	88	-	-	-	88	Requested		
15 Terasen Utilities ROE and Cap Structure App	42	-	-	-	42	Requested		
16 Subtotal Deferred Regulatory Expense	(1,546)	341	2,349	(59)	1,086			
17								
18 Other Deferred Charges and Credits:								
19 Trail Office Lease Costs	167	-	-	(12)	155	G-41-94	G-41-94	
20 Trail Office Rental to SD#20	(679)	-	(50)	-	(729)	n/a – GAAP		
21 Prepaid Pension Costs	7,868	(1,493)	-	-	6,375	n/a – GAAP		
22 Post-Retirement Benefits	(5,223)	(1,393)	-	-	(6,616)	n/a – GAAP		
23 2008 System Development Plan Update	389	-	-	(389)	-	G-147-07	G-193-08	
24 Advanced Metering Infrastructure	516	429	-	-	945	G-193-08		
25 2009 Resource Plan	409	257	-	-	667	G-147-07		
26 Revenue Protection	154	164	-	(154)	164	G-58-06	G-58-06	
27 PLP Settlement Costs	16	-	-	(16)	-	G-159-06	G-159-06	
28 PLP Computer Software	64	-	-	(23)	41	G-159-06	G-159-06	
29 PLP Deferred Pension Credit	(58)	-	-	12	(46)	G-159-06	G-159-06	
30 ROW Reclamation (Pine Beetle Kill)	1,557	-	-	(173)	1,384	G-147-07	G-147-07	
31 International Financial Reporting Standards	210	160	-	(210)	160	G-193-08	G-193-08	
32 Right of Way Encroachment Litigation	55	29	-	-	84	G-193-08		
33 2011-2030 Integrated System Plan	140	715	-	-	855	G-193-08		
34 DSM Study	70	118	-	-	188	G-193-08		
35 Joint use Pole Audit	87	-	-	(22)	65	G-193-08	G-193-08	
36 Mandatory Reliability Standards Project	316	485	-	-	801	Requested		
37 Subtotal Other Deferred Charges and Credits	6,057	(529)	(50)	(987)	4,491			
38								
39 Deferred Debt Issue Cost								
40 Previous Issue Costs	3,095	(86)	-	(303)		1990 - 2007 Orders		
41 Medium Term Note Debenture - 2009	963	(62)	-	(32)		G-193-08	G-193-08	
42 Medium Term Note Debenture - 2010	-	1,089	-	-		Requested	Requested	
43 Subtotal Deferred Debt Issue Costs	4,058	941	-	(335)	4,663			
44 TOTAL DEFERRED CHARGES	17,886	5,818	(696)	(3,730)	19,277			

Q11.2 Please identify and breakdown the proposed \$2.24m for “*Potential and Investigative Charges*” for each project currently under consideration, which capital project these costs will be transferred to during 2010, and the remaining projects that account for the 2010 year-end balance of \$0.327m.

1 A11.2 Please refer to BCUC IR A9.1 above.

2 **Q11.2.1 Has FortisBC considered tracking these costs in Account 183 (Uniform System**
3 **of Accounts) identified for “PRELIMINARY SURVEY AND INVESTIGATION**
4 **CHARGES”?**

5 A11.2.1 FortisBC does track all Investigative Charges under Account 183. The Uniform System
6 of Accounts classifies Account 183 under Deferred Charges.

12.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.7.2, Deferred Charges, p. 26

Q12.1 Please explain the rationale behind the \$1.5m decrease in forecast Prepaid Pension Costs.

A12.1 The forecast \$1.5 million (after tax) decrease to 2010 Prepaid Pension Costs is detailed below. The decrease is determined by the forecast pension expense, less the actual contributions paid out by the company. The decrease was based on preliminary estimates and discussion with FortisBC's actuary because the Company uses a measurement date of September 30th to calculate its net benefit cost. On November 2, 2009 FortisBC will update its 2010 Revenue Requirements, and will incorporate the amounts below which correspond with the actuary letter included in the response to Q12.2. FortisBC expects to have finalized 2010 pension information from its actuary in time for the final calculation of 2010 rates.

Prepaid Pension Costs

	October 1, 2009 Preliminary Revenue Requirements	November 2, 2009 Updated Revenue Requirements
	Forecast 2010 (\$000s)	Forecast 2010 (\$000s)
2010 estimated net benefit cost (expense) under CICA 3461 are as follows:		
DB Plans (FRIP, IBEW, COPE)	(5,996)	(5,330)
DB Supplemental	(116)	(116)
DC SERP	(255)	(247)
	<u>(6,367)</u>	<u>(5,693)</u>
2010 estimated employer funding contributions:		
DB Plans (FRIP, IBEW, COPE)	4,195	3,805
DB Supplemental	84	84
	<u>4,279</u>	<u>3,889</u>
Additions to Prepaid Pension Costs in year	(2,088)	(1,804)
Tax effect at a rate of 28.5%	595	514
Net increase in Prepaid Pension Costs	<u>(1,493)</u>	<u>(1,290)</u>

1 **Q12.2 Please provide an actuarial assessment that supports the change in Pension costs.**

2 A12.2 The change in Pension Costs included in the 2010 Preliminary Revenue Requirements filed on
 3 October 1, 2009, is based on preliminary estimates and discussion with FortisBC's actuary
 4 because the Company uses a measurement date of September 30th to calculate its Pension
 5 Costs. The updated 2010 Revenue Requirements to be filed on November 2, 2009 will include
 6 an updated change to pension costs which is supported by an actuarial assessment that is
 7 attached as Appendix BCUC 12.2.

8 **Q12.3 Please explain the \$1.9m increase in Post-Retirement Benefits from 2009 to 2010.**

9 A12.3 As detailed below, the forecast \$1.9 million increase to 2010 Post-Retirement Benefit Costs is
 10 before tax. The decrease is determined by the forecast pension expense, less the actual
 11 contributions paid out by the company. The change in Post-Retirement Benefits included in the
 12 2010 Preliminary Revenue Requirements filed on October 1, 2009, is based on preliminary
 13 estimates and discussion with FortisBC's actuary because the Company uses a measurement
 14 date of September 30th to calculate its Post-Retirement Benefits. FortisBC expects to have
 15 finalized 2010 Post-Retirement Benefit Costs information from its actuary in time for the final
 16 calculation of 2010 rates.

<u>Post-Retirement Benefits Costs</u>	Forecast 2010 (\$000s)
Net Periodic Cost	2,118
Current year amortization of liability ⁽¹⁾	480
Expense - prospective application of full accrual accounting	2,598
less funding contribution (cash paid out)	(650)
Increase to Post-Retirement Benefits Costs	1,948

(1) Regulatory asset in respect of Post-Retirement Benefits that is being amortized through the regulatory net benefit cost in the amount of \$480,000 per year.

Q12.4 Explain the increase in Pension and Post-Retirement Benefits from 2009 to 2010 (Line 8 Table 2-E, Tab 4 p.22) and explain how these figures reconcile to the same items discussed under Other Deferred Charges and Credits (Tab 3, p.26).

A12.4 The increase in Pension and Post-Retirement Benefits from 2009 to 2010 is detailed and explained below.

Pension and Post-Retirement Benefits Expense

	November 19, 2008 Approved NSA Revenue Requirements	October 1, 2009 Preliminary Revenue Requirements	November 2, 2009 Updated Revenue Requirements
	Approved 2009 (\$000s)	Forecast 2010 (\$000s)	Forecast 2010 (\$000s)
Estimated net benefit cost (expense):			
DB Plans (FRIP, IBEW, COPE)	4,771	5,996	5,330
DB Supplemental	117	116	116
DC SERP	150	255	247
	<u>5,038</u>	<u>6,367</u>	<u>5,693</u>
Estimated post-retirement benefit expense:			
Net periodic costs	2,023	2,118	2,118
Current year amortization of liability ⁽¹⁾	480	480	480
	<u>2,503</u>	<u>2,598</u>	<u>2,598</u>
Additions to prepaid pension costs in year	7,541	8,965	8,291
Allocation to operating and maintenance expense	44.0%	44.0%	44.0%
Operating and maintenance expense	<u>3,318</u>	<u>3,945</u>	<u>3,648</u>

(1) Regulatory asset in respect of Post-Retirement Benefits that is being amortized through the regulatory net benefit cost in the amount of \$480,000 per year.

The change in Pension and Post-Retirement Benefits included in the 2010 Preliminary Revenue Requirements filed on October 1, 2009, is based on preliminary estimates and discussion with FortisBC's actuary because the Company uses a measurement date of September 30th to calculate its Pension and Post-Retirement Benefits. The updated Revenue Requirements to be filed on November 2, 2009 will include the amounts above, which correspond with the actuarial assessment attached as Appendix BCUC 12.2.

There is a \$0.6 million increase in Pension and Post-Retirement Benefits included in operating and maintenance expense from 2009 Approved to the 2010 Preliminary Revenue Requirements. The increase is primarily due to projected investment related losses of approximately \$8.0 million during the period October 1, 2008 to September 30, 2009 which resulted in approximately a \$1.3 million increase to the 2010 net benefit cost. Note that the full \$1.3 million increase is allocated to both capital (\$0.7 million) and operating expense (\$0.6 million).

FortisBC expects to have finalized 2010 pension information from its actuary in time for the final calculation of 2010 rates.

Below is a reconciliation of the 2010 forecast operating and maintenance expense as stated in the above table to the changes in Prepaid Pension and Post-Retirement Benefits as discussed under Other Deferred Charges and Credits (Tab 3, p.26).

Reconciliation between Pension and Post-Retirement Benefits Expense and Changes in Deferred Charge

	October 1, 2009 Preliminary Revenue Requirements		November 2, 2009 Updated Revenue Requirements	
	Forecast 2010 (\$000s)		Forecast 2010 (\$000s)	
Pension and Post-Retirement Benefits Expense				
Operating and maintenance expense (per above)	44%	3,945	44%	3,648
Allocation to capital	56%	5,020	56%	4,643
		8,965		8,291
Contributions made by FortisBC				
Pension Plans		(4,279)		(3,889)
Post-Retirement Benefits		(650)		(650)
		(4,929)		(4,539)
Change to prepaid pension and post-retirement benefit plans		4,036		3,752
Change to Pension & Post-Retirement Benefit before tax impact				
Additions to prepaid pension costs per Tab 3, p.26		2,088		1,804
Additions to post-retirement benefits per Tab 3, p.26		1,948		1,948
		4,036		3,752

Q12.5 Please describe FortisBC's pension plan (defined benefit, defined contribution, both).

A12.5 FortisBC has both defined benefit ("DB") and defined contribution ("DC") plans.

A. FortisBC has the following defined benefit plans:

FortisBC Retirement Income Plan ("FRIP"): The plan was established effective January 1, 1979 and was amended and restated as of January 1, 1993. It replaces the previous plan known as West Kootenay Power Guarantee Retirement Income Plan which had been in effect since January 1, 1966. Prior to January 1, 2002, the FRIP was only a defined benefit plan. Effective January 1, 2002, each active member was given a one-time opportunity to elect to continue in the DB Plan or convert to the DC Plan. 65 active members at that time elected to remain in the DB Plan. Membership is made up of grandfathered West Kootenay Power employees who are not represented by a collective bargaining unit. This plan is frozen to new entrants.

FortisBC IBEW Pension Plan: The plan was established effective February 1, 1992. All IBEW

1 full time and regular part time employees are required to join the plan and are eligible to be
2 members of this plan on his or her date of employment. A temporary employee is eligible on the
3 first day of any month at which time the member is actively at work and has completed 24
4 months of continuous service in which he or she has earned at least 35% of the Canada
5 Pension Plan's "Year's Maximum Pensionable Earnings" (the "YMPE") in each of two
6 consecutive calendar years. There is a 2 year non-vested period for all new members. The plan
7 includes a shared cost which is comprised of (a) the cost of future accruals (normal actuarial
8 cost) and (b) the cost of past service (amortization payments). Benefits are provided at normal
9 retirement age, upon early retirement or upon death or termination of employment. The trustees
10 are employees of the company and consist of equal Company and Union representation with
11 one Trustee (Chair of the Board) who is external and paid by the Plan. The Board of Trustees
12 ensures that the plan is run in accordance with the Plan Text and Trust Agreement. All Plan
13 Amendments or the Amendments to the Trust must be approved by the Union and the
14 Company.

15 **COPE FortisBC Pension Plan:** The DB plan was established effective February 1, 1992. All
16 COPE regular full time employees are required to join the plan. COPE regular part time
17 employees are eligible after 2 years of continuous service and having earned at least 35% of
18 the YMPE in each of two consecutive calendar years. Contributions to the plan are made by
19 both the Company and the members of the plan. There is a 2 year non-vested period for all new
20 members. Benefits are provided at normal retirement age, upon early retirement or upon death
21 or termination of employment. The trustees are employees of the company and consist of equal
22 Company and Union representation. One Trustee (Chair of the Board from COPE Union) is
23 external. The Board of Trustees ensures that the plan is run in accordance with the Plan Text
24 and Trust Agreement. All Plan Amendments or the Amendments to the Trust must be approved
25 by the Union and the Company.

26 **Supplemental Pension Plan:** This plan originated from West Kootenay Power and it is a
27 closed supplemental plan. There are currently 3 remaining pensioners who receive monthly
28 pension payments.

29 B. FortisBC has the following defined contribution plans:

30 **FortisBC Retirement Income Plan ("FRIP"):** As previously mentioned, certain members
31 converted from the FRIP DB to the FRIP DC in 2002. The DC plan component is available to
32 employees who are not represented by a collective bargaining unit. All new employees after

January 1, 2002 become members of the DC plan. DC plan members do not make contributions, the DC plan is completely Company-funded. There is a 2 year vesting period for all new members. FortisBC is the administrator of the plan.

Supplemental Employee Retirement Plan: This plan is for executive employees who are members of the executive group RRSP plan whose participation in that plan reaches the maximum contribution limit.

Q12.6 What is FortisBC's early retirement age? Please provide a distribution curve of the age of all employees.

A12.6 FortisBC's early retirement age for employees depends on certain factors including: (a) the plan of which the employee is a member, and (b) whether the employee wants to receive unreduced pension benefits. The retirement dates for each plan are described below.

1. FortisBC IBEW Pension Plan Members

- a. Normal retirement date of a member under this plan is the member's 65th birthday.
- b. To receive unreduced pension benefits the member must attain 60 years of age or the member's age plus years of service combined equals or exceeds 85 years.
- c. A member may elect for early retirement if the member has attained 55 years of age or the member has attained 50 years of age and at least 15 years of service.

2. COPE – FortisBC Pension Plan Members

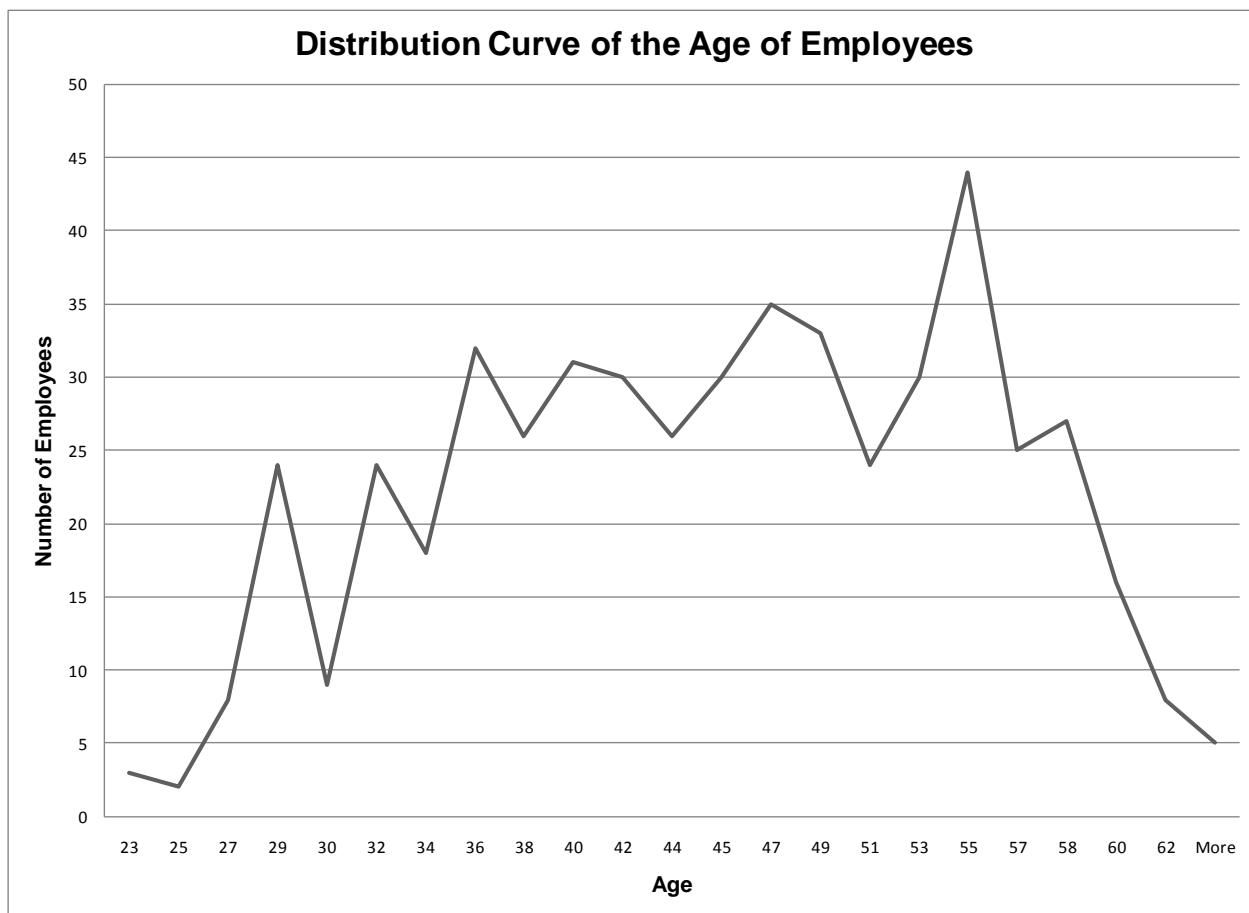
- a. Normal retirement date of a member under this plan is the member's 65th birthday.
- b. To receive unreduced pension benefits the member must attain 60 years of age or the member's age plus years of service combined equals or exceeds 80 years.
- c. A member may elect for early retirement if the member has attained 55 years of age or the member has attained 50 years of age and at least 15 years of service.

3. FRIP Members

- a. Normal retirement date of a member under this plan is the member's 65th birthday.
- b. To receive unreduced pension benefits the member must attain 55 years of age with a combined sum of age and years of service totalling at least 85 years.
- c. A FRIP plan member may elect for early retirement that has attained 55 years of age

1 and has had at least two years of continuous service.

The table below shows the distribution curve of the age of all employees as at September 2009.



13.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.7.2, Deferred Charges, Revenue Protection, p. 27

Q13.1 Please advise whether the Forecast Annual Savings of \$199,000 is NET of Forecast Costs (\$220,000).

A13.1 No. The Forecast Annual Savings of \$199,000 is not net of the Forecast Costs of \$220,000.

Q13.2 Please advise whether the NPV for Third Party Contracts should be \$467,000 (\$117,000 annually at 8% for 5 years) instead of \$117,000 (as shown in the table at the bottom of Tab 3, p.27).

A13.2 No. The NPV of \$117,000 for Third Party Contracts is correct as these savings are attributed to one time productivity gains by the elimination of return trips to remove poles during distribution pole upgrades.

Q13.3 If so, please confirm that the total NPV Savings to be recognized should be \$795,000 as opposed to \$444,000.

A13.3 Not confirmed. Please see the response to Q13.2 above.

Q13.4 Does FortisBC expected to obtain the same level of NPV savings in 2010 as forecast in 2009?

A13.4 FortisBC expects to maintain the same level of NPV savings in 2010 as forecast for 2009. On a NPV basis, the value related to 2009 expenditures does not change. The savings from power diversion inspections are estimated to be \$82,000 annually for five years and the savings from third party contracts is a one time saving.

“...the Company has deferred the expenditures and is proposing to amortize the costs in the following year.” (Tab 3, p.27)

Q13.5 Is the above statement suggesting that ratepayers will be responsible for the program costs of \$220,000? Please explain how the tangible benefits are passed back to the rate payers.

A13.5 Yes, the program costs are recovered by way of amortization expense. Tangible benefits of the Revenue Protection program accrue to rate payers through a reduction in expenses plus increased certainty of collection on revenues warranted under the various pole contracts. The following outlines several sources of rate payer benefit:

- Avoided incremental power purchases to supply diverted energy. This is valued at \$82,000 for 2009 – 2013, a Net Present Value of \$327,000 over the 5 year period.
- Productivity gains during distribution pole upgrades by avoiding return trips to remove discarded poles reduce capital costs for rate payers. This is valued at \$117,000 for 2009.
- An improved electronic process for reporting new pole attachments replaces a dated paper process and improves the certainty that new attachments will be billed in the year they occur rather than penalty billed in the 5 year audit.

Q13.6 Please discuss whether FortisBC should recognize the net benefit of the program (NPV Savings less program costs) in 2010 rates?

A13.6 The benefits of the expenditures which are related to power diversion are realized through lower power purchase expense and/or higher sales revenues. If the future savings were to be estimated for inclusion in 2010 revenue requirements, this would result in double counting of the benefits in future years as power purchase expense is reduced.

“Joint training sessions for the FortisBC operations group and pole licensees was a key area of focus during 2009. These sessions highlighted the obligations of the parties and introduced new electronic processes to ensure that FortisBC ratepayers continue to receive maximum benefit from these agreements.”

Q13.7 Please further describe the types of benefits that are attempted and ultimately achieved through these joint training sessions.

A13.7 The joint training sessions with pole licensees and FortisBC staff reviewed the operational highlights of the various agreements with a view to promoting an understanding of each party's obligations. The areas of focus were:

- Clarity on which party pays for pole upgrades and how much is billed in different scenarios;
- Documentation and review of the correct process to contact FortisBC poles;
- Electronic versus paper process for reporting and billing new contacts; and
- Shared electronic worksheet with defined pricing to aid billing between the parties.

The benefits achieved are:

- Increased reporting of pole contacts by licensees; and
- Certainty for field staff on pricing for pole upgrades.

14.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.7.2, Deferred Charges, Deferred Charges and Credits, pp. 26-31

Q14.1 Please identify the number of power diversions found through the inspection program in 2008 and 2009.

A14.1 The number of power diversions found through the inspection program for 2008 and 2009 are as follows:

Year	# Power Diversions
2008	28
2009 (Forecast)	14

Q14.2 Please describe why the joint training sessions associated with Third Party Contracts are not simply an operating expense. Please describe the number of training sessions and the number of participants, and provide a reconciliation of the costs.

A14.2 The \$30,000 in the Revenue Protection budget spent on Third Party Contracts is administration expense only. The administrative component devoted to process improvements and training is a deferred expense versus an O&M expense as these activities provide benefit of enduring value beyond the current year.

The participant costs associated with the joint training session were charged to O & M budgets. The detail of these costs is as follows:

Total # of Training Sessions	Total # of FortisBC Participants	Total O & M Cost
3	20	\$2,940

Q14.3 Please discuss if it is prudent to delay activity toward the Integrated System Plan until after the Section 5 Inquiry and the consideration of FortisBC's 2009 Resource Plan Update, and if not, why not.

A14.3 FortisBC last prepared and filed a long term System Development Plan ("SDP") for its transmission and distribution facilities in 2005. Prudent planning and management of the Company's facilities requires a long term strategy to be maintained and updated as conditions require. It is FortisBC's opinion that a major update to its long term plan is necessary at this time to provide a basis for the 2011 and future Capital Expenditure Plans.

However FortisBC recognizes the interplay of the Section 5 Inquiry and the Resource Plan proceedings with its Integrated System Plan ("ISP") and continues to evaluate their potential impacts on the ISP and the appropriate timing of the ISP filing.

1 Planning and engineering work for the development of the ISP must proceed in 2010, however,
2 even if its filing were to be delayed as a result of the Section 5 Inquiry and Resource Plan
3 review. Therefore the Deferred Charge expenditures would still be required in 2010.

4 **Q14.4 Please provide a detailed scope and estimate for the costs associated with the**
5 **Mandatory Reliability Standards Project, and identify the amount currently being carried**
6 **as deferred Investigative costs.**

7 A14.4 FortisBC established an MRS project review team with a mandate to complete the following
8 tasks as defined by BCUC order G- 67-9 section 6 c)

9 *'(c) By no later than December 31, 2009, entities registered with the*
10 *Commission and subject to the reliability standards adopted in this Order*
11 *must file with the Commission a plan ("Mitigation Plan") confirming*
12 *compliance with applicable reliability standards and/or outlining how they*
13 *intend to bring themselves into compliance with applicable reliability*
14 *standards and by what date they expect to become compliant. A Mitigation*
15 *Plan must, at a minimum:*

16 *(i) identify the Commission-adopted reliability standards to which it is subject*
17 *based on its prior registration with the Commission as a functional entity(ies);*

18 *(ii) for each reliability standard identified under (i), provide a summary of the*
19 *steps that the entity will take, if any, to become compliant with the reliability*
20 *standard;*

21 *(iii) for each reliability standard identified under (i), provide the date (the*
22 *"Compliance Date") upon which the entity believes it has achieved or will*
23 *achieve compliance with the reliability standard, which will in any event be no*
24 *later than November 1, 2010 unless the Commission approves a later*
25 *Compliance Date.'*

26 By Order G-123-09 the Commission extended the filing date for the Mitigation Plan to March 1,
27 2010.

28 The forecast amount included in deferred Investigate Costs is forecast to be \$2.4 million as
29 shown in the response to Q9.1 above.

15.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.7.2, Deferred Charges, Right of Way ("RoW") Encroachment Litigation, p. 29

"Upon resolution of the dispute, recovered cost will be recorded to the deferral account and the residual will be amortized into the Company's rates as agreed to in the 2009 NSA." (Tab 3, p.29)

Q15.1 Please confirm that the Company is suggesting to net the rewarded amounts from the current litigation with the deferred legal fees of \$84,000, to be recovered in future rates?

A15.1 Confirmed.

Q15.2 Can FBC provide an estimate of what the final settlement / recovered amount will be?

A15.2 This matter remains in its preliminary stages and it is not possible to estimate what the final settlement or amount recovered will be at this time.

Q15.3 When is FBC expecting a resolution to this litigation?

A15.3 Based on the uncertainty associated with timelines in the litigation process, it is not possible to estimate when the matter will be resolved.

16.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.7.2, Deferred Charges, Demand Side Management (DSM) Study, p. 30

Q16.1 Please confirm that DSM study costs are borne by all FortisBC's rate payers.

A16.1 Confirmed.

Q16.2 Please identify all rate classes that would benefit from DSM studies.

A16.2 All rate classes, including residential, general service, industrial and wholesale, benefit.

Q16.3 Please briefly discuss the results of the Residential and End-Use Surveys. Identify the top 5 results obtained by the DSM surveys that will enable FortisBC to target specific activities in usage curtailment.

A16.3 The primary purpose of the End-Use Survey is as an input to the Conservation Potential Review (CPR). A secondary purpose is for marketing intelligence to guide program development. The CPR will determine what the top 5 end-uses are in terms of savings potential, but for illustrative purposes the following examples are provided:

- 18% of respondents indicated they had single pane windows;
- 38% use electricity as the main space heating fuel;
- 49% use electricity to heat their hot water tank;
- On average each respondent has bought 9.2 Compact Fluorescent lamps; and
- 92% of households have an electric clothes dryer.

Q16.4 What types of DSM incentives / programs will FortisBC be engaged in.

A16.4 Details of the 2009/10 DSM programs were filed in FortisBC's 2009/10 Capital Expenditure Plan ("2009/10 CEP"), and subsequently approved by BCUC Order No. G-11-09. The 2011 DSM Plan, guided by the 2008 Strategic Demand Side Management report, is expected to include a broad range of program enhancements, including the addition of demand response programs.

1 **Q16.5 Section 44.2 of the Utilities Commission Act indicates that DSM activities must be cost**
2 **effective. Please discuss whether FBC has completed an analysis on the usefulness of**
3 **the survey results and the impact on usage curtailment as a result of DSM related**
4 **activities. In other words, has there been a cost-benefit analysis on the success of DSM**
5 **activities.**

6 A16.5 Details of the forecast 2009/10 DSM spending were filed in the 2009/10 CEP, and approved by
7 BCUC Order No. G-11-09. The FortisBC DSM activities are reported in the Company's Semi-
8 Annual DSM Reports which are filed with the BCUC. The 2008 year-end report shows an
9 overall 1.8 TRC Benefit/Cost Ratio.

10 **Q16.6 Please provide details to the additional \$118,000 funding requested in 2010 relating to**
11 **DSM study costs. How does FBC plan on using these additional funds, which customer**
12 **groups will be targeted, and what type of benefits are expected to be obtained?**

13 A16.6 The additional funding will be used to complete the 2010 CPR, currently underway. The scope
14 of the CPR, which includes all customer classes, will identify and catalogue DSM opportunities
15 and determine the technical, economic and achievable savings available within the service area.

16 **Q16.7 Please explain how the additional \$118,000 DSM Study costs will benefit existing rate**
17 **payers.**

18 A16.7 The study will benefit ratepayers by guiding the creation of enhanced DSM programs starting in
19 2011.

20 **Q16.8 Would FortisBC agree that residential customer usage, while peaking at certain times of**
21 **the day, may be difficult (impracticable) to curtail?**

22 A16.8 FortisBC does not agree. Customers within the FortisBC service area have already installed
23 Electric Thermal Storage heaters which shift electric heating loads to off-peak time periods.
24 Electric utilities in other jurisdictions have implemented residential load controls on major end-
25 uses, including electric hot water tanks and central air conditioning, for a number of decades.
26 Smart appliances which will duty cycle components, e.g. electric heating elements in a clothes
27 dryer, in response to grid conditions i.e. high load hours are being introduced into the market.

Project No. 3698570: Application for 2010 Revenue Requirement

Requestor Name: British Columbia Utilities Commission

Information Request No: 1

Request Date: October 16, 2009

Response Date: October 30, 2009

1 **Q16.9 Please confirm that the residential customer class makes up approximately 45% of**
2 **forecast sales and 87% of total customers in 2010.**

3 **A16.9 The residential class makes up approximately 35% of 2010 forecast gross load. Forecast**
4 **2010 residential customers make up approximately 87% of the total 2010 year-end**
5 **customer forecast.**

17.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirement, Section 3.2.5 Other Income, pp.8-9 and Tab 3, Section 3.7 Other Deferred Charges and Credits, subsection xi, Joint Use Pole Audit, p. 30

FortisBC explains that an audit for joint use pole contacts are completed once every five years and a true-up for new contacts are subject to penalty billing. The result of the audit identifies \$407,000 of penalty revenue to be recognized as a deferred credit to rate base. (Tab 3, p.30)

Q17.1 Please confirm that FortisBC updates the joint use pole contact inventory to reflect the net changes to the number of contacts on a going forward basis when audits are complete.

A17.1 The inventory is updated following the audits.

At Tab 3, page 30 the Company states that the audit costs are deferred (and added to rate base). However it does not state that the penalty revenue is deferred. The penalty revenue is recognized in Other Income (line 2 of Table 3.2.5, as shown in the response to BCUC 5.2 above.

Q17.2 Please confirm that the above observation indicates that there were net additions to the joint use pole contact inventory. If so, then please explain why the forecast for “Electric Apparatus Rental” (Tab 4, Table 2-G-Other Income, Line 2, p.24) is decreased by 20% from 2009 to 2010.

A17.2 Yes, there were net additions to the joint use pole contact inventory as a result of the 5 year audit. Please also see the response to Q5.2 above.

Q17.3 Please discuss the Company’s view as to whether there should be some kind of interest credit that should be included on the penalty revenue amount to be recognized in the 2010 rate base, as compensation to rate payers for the rental revenue that they should have received in the non-audit years.

A17.3 FortisBC does not consider that interest should be credited to the third party penalty revenue. The penalty billings applied to unreported contacts are sufficient to compensate FortisBC and its customers for the period unreported, as audits are completed at five-year intervals and the penalty billing is either three times or five times the current year’s rental rate, depending on the contract.

1 **Q17.4 Please explain the changes in levels of investment income from 2008 to 2010.**

2 A17.4 Investment income has declined from 2008 to 2010 as the majority of investment income stems
3 from PowerSense Air Source Heat Pump program loans. The lower cost of borrowing from
4 other sources has caused a decline in new loans and balances of earlier loans being paid off.

- 1 **18.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.7.2,**
2 **Deferred Charges, Mandatory Reliability Standards (“MRS”) Project, p.31**
- 3 “The capital costs for the MRS Project are presently being carried as deferred
4 investigative costs and will be charged to the Capital Project once approved.” (Tab 3,
5 p.31)
- 6 **Q18.1 Has FortisBC considered tracking these costs in Account 183 (Uniform System of**
7 **Accounts) identified for “PRELIMINARY SURVEY AND INVESTIGATION CHARGES”?**
- 8 A18.1 As stated in the response of BCUC IR Q 11.2.1 above, the costs are captured in Account 183.

19.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.7.2, Deferred Charges, Deferred Debt Issue Costs, Medium Term Note (MTN) Debenture, p.31

“FortisBC requests approval to defer the issue costs, estimated at \$1.1 million, and to amortize the costs over the term of the debt issue.” (Tab 3, p.31)

Q19.1 What is the term of the expected MTN debenture?

A19.1 The term of the expected 2010 MTN debenture is 30 years.

Q19.2 Has it been Company practice to amortize issue costs over the term of the debenture or just expense in the year of issue?

A19.2 Yes, FortisBC’s practice has been to amortize debt issue costs over the term of the related debenture.

Q19.3 Reconcile the debenture issue costs of \$1.1m (Tab 3, p.31) to the figure of \$941 thousand as shown on Table 3.7.2 (tab 3, p.22).

A19.3 In Tab 3, page 31, FortisBC has forecast debenture issue costs of \$1.1 million related to an expected Medium Term Note debenture issue in 2010. The Company recognizes a deduction for the net-of-tax component of debenture issue costs for Series 07-1, MTN-2009 and MTN-2010 as shown below and on Tab 4, page 11, Table 1-B, line 73, 75 and 77.

<u>Reconciliaton of Debenture Costs</u>		Forecast 2010 (\$000s)
2010 debenture issue costs per Tab 3, p.31		1,155
2010 net-of-tax additions		
Series 07-1		(87)
MTN-2009		(62)
MTN-2010		(66)
		<u>(215)</u>
Net debenture issue costs per Tab 3, p.22		<u>941</u>

1 **20.0 References: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.7.2,**
2 **Deferred Charges, pg. 31**

3 **Q20.1 Please provide more detailed information on the work FortisBC is undertaking in**
4 **preparation for the BCUC Mandatory Reliability Standards regulation.**

5 A20.1 Please see the response to Q14.4 above.

6 **Q20.2 Will FortisBC be required to submit any mitigation plans with respect to any reliability**
7 **standards? If so, please discuss.**

8 A20.2 As required by Orders G-67-09 and G-123-09 FortisBC may file mitigation plans with respect to
9 reliability standards. The Company is in the process of confirming its requirements for MRS
10 compliance.

21.0 Reference: Exhibit B-1, Application, Tab 3, Revenue Requirements, Section 3.8, Non Rate Base Deferred Accounts, Table 3.8, p. 32

Q21.1 Please provide a detailed reconciliation of line item 2 in Table 3.8, Property, Plant and Equipment - Gains and Losses on Disposal of Assets.

A21.1 Estimating the gains and losses to be experienced on retirement of assets is, in most cases, extremely difficult. Unless there is a planned retirement activity, such as removing a transmission line, retirements will occur at various points in time for various reasons throughout a year. As well, assets retired will be of various ages with various net book values.

In determining the amount to include in the table, FortisBC considered historical experience as well as the year-to-date amount for 2009.

Losses on Retirement of PP&E	
2007 Retirements	\$ 3,824
2007 Loss on Retirements	\$ 1,705
Loss Rate on Retirements	45%
2008 Retirements	\$ 4,575
2008 Loss on Retirements	\$ 2,023
Loss Rate on Retirements	44%
2009 Retirements (as of June 30, 2009)	\$ 1,788
2009 Loss on Retirements (as of June 30, 2009)	\$ 746
Loss Rate on Retirements	42%
2010 Estimated Loss on Retirements	\$ 2,000

Q21.2 Please provide a detailed description and reconciliation of line item 5 in Table 3.8, Depreciation of Major Inspections.

A21.2 Major inspections, as defined under IFRS, are allowed to be capitalized when they are a condition of continuing to operate an item of Property, Plant and Equipment. However, when major inspections are capitalized they must be depreciated separately over their own useful life instead of the life of the asset to which they relate so that they are fully depreciated before the next major inspection occurs.

FortisBC performs routine major inspections on its transmission and distribution network, as well as its substations. Since these major inspections are already capitalized there will be no change

1 to capitalization policies as a result of IFRS in this area. However, these major inspections are
 2 scheduled to occur several times over the life of the related asset in either 8 or 10 year intervals,
 3 therefore the depreciation rate of these major inspections will be different under IFRS.

Depreciation of Major Inspections		2010 (in \$000's)
Transmission Line Condition Assessment (per 2008 Rev Reqs)	\$	496
Current Rate		3.00%
Current Depreciation	\$	15
Proposed Rate (8 year life)		12.50%
Proposed Depreciation	\$	62
Difference	\$	47
Distribution Line Condition Assessment (per 2008 Rev Reqs)	\$	667
Current Rate		3.00%
Current Depreciation	\$	20
Proposed Rate (8 year life)		12.50%
Proposed Depreciation	\$	83
Difference	\$	63
Station Assessments (per 2008 Rev Reqs)	\$	680
Current Rate		3.00%
Current Depreciation	\$	20
Proposed Rate (10 year life)		10.00%
Proposed Depreciation	\$	68
Difference	\$	48
Regulatory Asset Related to Depreciation of Major Inspections	\$	158

22.0 Reference: Exhibit B-1, Application, Tab 4, Financial Schedules, Table 1 – A , Utility Plant In Service (2009), p. 6

Q22.1 Please explain why “Land Rights – R/W” and “Land Rights – Clearing” are identical amounts.

A22.1 FortisBC estimates the cost of “Land Rights – R/W” and “Land Rights – Clearing” to be equal.

Q22.2 Please explain why there were no additions in 2009 to Utility Plant In Service for “Distribution Plant – Station Equipment” and for “Distribution Plant – Services”.

A22.2 There were no forecast additions in 2009 to Utility Plant in Service for “Distribution Plant – Station Equipment” since most substation equipment falls under the Transmission Plant category (Account Code 353).

There are no additions under Distribution Plant – Services since these assets are distributed under the following Account Codes in 2009:

1. Account Code 364: Poles Towers & Fixtures
2. Account Code 365: Conductors & Devices
3. Account Code 368: Line Transformers
4. Account Code 370: Meters
5. Account Code 371: Installation on Customers' premises

Q22.3 Please identify, in general, the assets associated with “Street Lighting and Signal System” and explain why there are no additions.

A22.3 Under the Uniform System of Accounts, Account Code 373 includes the cost installed of the equipment used wholly for public street and highway lighting or traffic, fire alarm, police, and other signal systems.

Most of these facilities are customer-owned. There are no Company-owned additions to account code 373 in 2009. (Poles and structures for the attachment of fixtures would be charged to account code 364: Poles, Towers and Fixtures)

Q22.4 Please provide the Utility Plant In Service additions for each category in General Plant since 2006.

A22.4 The requested information is provided in the following table.

Project No. 3698570: Application for 2010 Revenue Requirement
Requestor Name: British Columbia Utilities Commission
Information Request No: 1
Request Date: October 16, 2009
Response Date: October 30, 2009

Account	Utility Plants in Service : General Plant Categories	31-Dec-05	2006 Additions	2006 Retirements	31-Dec-06	PLP 31-Dec-06	1-Jan-07	2007 Additions	2007 Retirements	31-Dec-07	2008 Additions	2008 Retirements	31-Dec-08	2009 Forecast Additions	2009 Forecast Retirements	Forecast 12/31/2009
389	Land	2,053	1,466	-	3,519	-	3,519	2,281	-	5,800	-	-	5,800	-	-	5,800
390	Structures-Frame & Iron	337	-	-	337	-	337	-	-	337	-	-	337	-	-	337
390.1	Structures-Masonry	19,150	1,104	(12)	20,242	802	21,044	1,922	-	22,966	1,567	-	24,533	1,325	-	25,858
391	Office Furniture & Equipment	4,689	243	-	4,932	54	4,986	247	-	5,233	363	(1)	5,595	1,152	(1)	6,746
391.1	Computer Equipment	34,306	5,605	(196)	39,715	206	39,921	2,707	(449)	42,179	8,961	(163)	50,977	6,056	(163)	56,870
392	Transportation Equipment	8,797	3,337	(404)	11,730	935	12,665	4,431	(649)	16,447	1,628	(1,512)	16,563	2,000	(1,512)	17,051
394	Tools and Work Equipment	7,785	860	-	8,645	303	8,948	936	-	9,884	682	-	10,566	615	-	11,181
397	Comm. Structures and Equip.	12,907	1,710	(130)	14,487	-	14,487	5,529	-	20,016	2,864	-	22,880	2,334	-	25,214
TOTAL		90,024	14,325	(742)	103,607	2,300	105,907	18,053	(1,098)	122,862	16,065	(1,676)	137,251	13,482	(1,676)	149,057

1 **Q22.5 Please describe the policies for expenditures on “Office Furniture & Equipment”,**
2 **“Computer Equipment”, “Transportation Equipment”, “Tools and Work Equipment”,**
3 **“Communication Structures and Equipment” to be considered as additions to Utility**
4 **Plant In Service rather than operating expenses.**

5 A22.5 Expenditures in these categories are capitalized if they meet the threshold under the Company’s
6 Capitalization Policy, which is attached as Appendix BCUC 22.5. Other smaller expenditures on
7 similar consumables (e.g. consumables in the maintenance of transportation equipment) are
8 considered operating expenses.

23.0 Reference: Exhibit B-1, Application, Tab 4, Financial Schedules, Table 1 – A , Utility Plant In Service (2010), p. 7

Q23.1 For each project in excess of \$1,000,000 that is forecast to enter the Utility Plant In Service in 2010, please provide the approved (if available) and forecast budget amounts, broken down by Account code for each project.

A23.1 The requested information is provided below.

Transmission Sustaining, Distribution Sustaining, New Connects and Information System projects are not included since they consist of individual smaller project components.

Only Additions to Plant are broken down in estimated account codes, since capital expenditures are not tracked by their account codes.

Project No. 3698570: Application for 2010 Revenue Requirement
Requestor Name: British Columbia Utilities Commission
Information Request No: 1
Request Date: October 16, 2009
Response Date: October 30, 2009

Hydraulic Production		BCUC Approval Order Number / Other Reference for Year 2010		Forecast Expenditure 2010	Additions to Plants	ACCOUNT CODES						
						333	334					Total
1	SLC U1 Life Extension (replace turbine)	3,261	G-52-05	2,459	16,474	16,474						16,474
2	All Plants Upgrade Station Service Supply	1,191	G-147-06	1,191	1,230		1,230					1,230
3	COR U1 Life Extension (replace Turbine)	8,476	G-147-06	9,680	-							0
4	COR U2 Life Extension (replace Turbine)	2,987	C-5-09	2,987	304	304						304
		TOTAL		16,317	18,008	16,778	1230					18,008
Transmission Plant		BCUC Approval Order Number / Other Reference for Year 2010		Forecast Expenditure 2010	Additions to Plants	ACCOUNT CODES						
						353	355	356	350+350.1			Total
5	Okanagan Transmission Reinforcement	74,379	Fortis Letter March 10 2009	62,325	48,198	24,099	14,459	9,640				48,198
6	Benvoulin Distribution Source	13,301	C-1-09	13,301	17,735	12,415	2,660	1,779	881			17,735
7	Recreation Capacity Increase Stage 1,2,3	3,401	G-11-09	2,257	3,175	3,175						3,175
8	30L Conversion Slocan / Coffee Creek S/Stns	\$4,500 in 2009. G-11-09. Carry over to 2010		2,340	4,449	3,559	445	445				4,449
		TOTAL		80,223	73,557	43,248	17,564	11,864	881			73,557
Distribution Plant		BCUC Approval Order Number / Other Reference for Year 2010		Forecast Expenditure 2010	Additions to Plants	ACCOUNT CODES						
						364	365	368				Total
9	Airport Way Upgrade (Elison Feeder - 3)	1,551	G-11-09	1,551	1,551	450	776	326				1,551
10	Beaver Park F-2 to Fruitvale F-1 Dist. Tie Upgrade	1,227	G-11-09	1,227	1,227	736	246	246				1,227
		TOTAL		2,778	2,778	1,186	1,021	571				2,778
General Plant		BCUC Approval Order Number / Other Reference for Year 2010		Forecast Expenditure 2010	Additions to Plants	ACCOUNT CODES						
						390.1	391	391.1	392	394	397	Total
11	Distribution Station Automation	1,438	C-11-07	1,664	1,664	166	333			250	915	1,664
12	Mandatory Reliability Compliance (NERC Related)	-	MRS Compliance	2,399	2,399			1,200			1,200	2,399
13	Vehicles	2,000	NSA 2009	2,000	2,000				2,000			2,000
14	Buildings	1,062	G-11-09	1,062	1,062	743	319					1,062
TOTAL				7,125	7,125	909	652	1,200	2,000	250	2,115	7,125

1

1 **Q23.2 Please explain why retirements are identical for 2009 and 2010.**

2 A23.2 The Company does not forecast plant retirements in detail. The value of retirements in 2008
3 was used to forecast 2009 and 2010.

4 **Q23.3 Please describe the retirements associated with “Office Furniture & Equipment” and**
5 **“Computer Equipment” for 2009 and 2010.**

6 A23.3 The assets associated with “Office Furniture & Equipment” are office equipment and furniture
7 and fixtures for general office buildings when not built in or permanently attached to buildings.
8 The assets associated with “Computer Equipment” are computer hardware, cabling, handheld
9 meter reading devices, and mainframe hardware. The Company does not forecast plant
10 retirements in detail. The value of retirements in 2008 was used to forecast 2009 and 2010.

24.0 Reference: Exhibit B-1, Application, Tab 4, Financial Schedules, Table 1 – A , Additions to Plant In Service (2009), p. 8

Q24.1 For each identified project please provide the approved and forecast budget amounts and the actual expenditures (if available), broken down by Account code for each project. Also include a reconciliation against the budget amounts provided in the 2009-2010 Capital Expenditure Plan.

A24.1 The following table shows the estimated breakdown of Plant in Service by account code. FortisBC does not estimate expenditures by account code. A breakdown of major Plants in Service (greater than \$100,000) for 2009 is provided in the enclosed Table.

FortisBC notes that the inclusion of the components of Distribution Station Automation in “Furniture & Fixture” was in error and will be corrected in the 2010 Updated Revenue Requirements on November 2, 2009. Please also refer to the response to BCUC IR-1 Q 24.7

Project No. 3698570: Application for 2010 Revenue Requirement
Requestor Name: British Columbia Utilities Commission
Information Request No: 1
Request Date: October 16, 2009
Response Date: October 30, 2009

**Additions to Plant in Service for the Year Ending December 31, 2009
(Greater Than \$100k)**

<u>Hydraulic Production</u>	Plant in Service	Account Codes							Total
		331	332	333	334	335			
1 All Plants Spare Unit Transformer	1,191	595				595			1,191
2 All Plants Fire Safety Upgrade Ph. 1	212	212							212
3 SLC U1 Head Gate Rebuild	790		790						790
4 SLC U3 Life Extension (no Turbine)	12,827			12,827					12,827
5 UBO Old Unit Repowering (Ph. 1)	1,152		1,152						1,152
6 All Plants Upgrade Station Service Supply	1,559				1,559				1,559
7 SLC H/G Hoist, Control, Wire Rope Upgrade	918		918						918
8 SLC Plant Completion	470				470				470
9 LBO Power House Crane Upgrade	150					150			150
10 LBO Intake Area Upgrade Ph. 1	350		350						350
11 All Plants 2009 Pump Upgrades	206					206			206
12 All Plants Lighting Upgrade	420				420				420
13 LBO, UBO, & COR Sump Oil Alarm Sys U/G	115		115						115
14 UBO & SLC Airwash Tank Rehab	104			104					104
15 Sub Total	20,464	807	3,325	12,931	2,449	951	-	-	20,464
<u>Transmission Plant</u>	Plant in Service	Account Codes							Total
		350	350.1	353	355	356	359		
16 Ellison Distribution Source	18,100			10,860	3,620	3,620			18,100
17 Black Mountain Distribution Source	14,394			8,637	2,879	2,879			14,394
18 Okanagan Transmission Reinforcement	4,191			419	1,886	1,886			4,191
19 Big White 138 KV Line & Substation	124			124					124
20 Kettle Valley	2,011			1,006	503	503			2,011
21 Naramata Rehab	6,112			3,667	1,222	1,222			6,112
22 Ooteschenia substation	142			85	29	29			142
23 Tarry's Capacity Increase	363			290	37	37			363
24 Kelowna Distribution Capacity Requirements	251				126	126			251
25 Transmission Sustaining	3,621	567	567	78	1,284	840	285		3,621
26 Station Sustaining	5,195			4,552	321	321			5,195
27 Sub Total	54,504	567	567	29,718	11,905	11,461	285	-	54,504
<u>Distribution Plant</u>	Plant in Service	Account Codes							Total
		360	360.1	364	365	368	370	371	
28 Small Capacity Improvements Unplanned	340			99	170	71			340
29 New Connects System Wide	15,442			4,324	4,633	3,243	463	2,779	15,442
30 New Glenmore Feeder	788			229	394	165			788
31 HOL1 - OKM1 Tie KLO Rd	317			92	158	67			317
32 VAL1 Feeder Capacity Upgrade	934			271	467	196			934
33 LEE2 - HOL5 Tie Add N.O.	509			148	255	106			509
34 Distribution Sustaining	11,651	964	964	6,433	3,039	126	126		11,651
35 Sub Total	29,981	964	964	11,596	9,116	3,974	589	2,779	29,981
<u>General Plant</u>	Plant in Service	Account Codes							Total
		390.1	391	391.1	392	394	397		
36 Distribution Station Automation	2,722	272	544			408	1,498		2,722
37 Protection, Harmonic Remediation, Communica	800			525			275		800
38 Vehicles	2,000				2,000				2,000
39 Metering	526			368			158		526
40 Information Systems	5,163			5,163					5,163
41 Buildings	1,360	1,053	307						1,360
42 Furniture & Fixtures	301		301						301
43 Tools & Equipment	516					206	310		516
44 Sub Total	13,388	1,325	1,152	6,056	2,000	614	2,241	-	13,388
45 TOTAL	118,337	3,663	6,008	60,301	25,470	17,000	3,115	2,779	118,337

The reconciliation of budget amounts with the 2009 Capital Expenditure Plan is provided in Tab 7, as follows:

1. Generation Projects: Tab-7, Page-4, Table-7.1.1
2. Transmission & Stations Projects: Tab-7, Page-5, Table-7.1.2
3. Distribution Projects: Tab-7, Page-7, Table-7.1.3
4. Telecommunication Projects: Tab-7, Page-8, Table-7.1.4
5. Information Systems & General Plant Projects: Tab-7, Page-9, Table-7.1.5

Q24.2 Please provide a similar table for 2008 and for each project that entered the Utility Plant In Service in 2008, please provide the approved and forecast budget amounts and the actual expenditures, broken down by Account code for each project.

A24.2 The requested information is provided below.

Sl#	Projects	Plant in Service	Account Codes								
Hydraulic Production			331	332							Total
1	P1U3 Upgrade & Life Extension	453		453							453
2	P3U3 Headgate Rebuild	910		910							910
3	P3 Poleyard Contaminated Site	115	115								115
4	Sub Total	1,478	115	1,363	-	-	-	-	-	-	1,478
Transmission Plant			353	355	356						Total
5	Big White 138 KV Line & Substation	13,648	8,189	2,730	2,730						13,648
6	Fault Level Reduction	201		101	101						201
7	New East Osoyoos Source (Nk'Mip Sub)	144	86	29	29						144
8	Transmission Line Sustaining	3,038		1,519	1,519						3,038
9	Ootischenia Project	5,983	3,590	1,197	1,197						5,983
10	Crawford Bay Cap Inc	2,192	2,192								2,192
11	18 L Breaker @ Waneta	1,800	1,800								1,800
12		27,006	15,857	5,575	5,575	-	-	-	-	-	27,006
Distribution Plant			360	360	362	364	365	368	370	371	Total
13	New Connects System Wide	24,434				6,842	7,330	5,131	733	4,398	24,434
14	Distribution Sustaining	8,475	1,250	1,250	1,494	1,374	2,211	896			8,475
15	Small Cap Improvements Unplanned - 2008	754			189	174	279	113			754
16	Dilworth Development Loopfeed	384				111	192	81			384
17	HOL1-HOL2 Tie	157				46	79	33			157
18	PRI04 Capacity Upgrade	1,274				370	638	267			1,274
19	OKF03 Capacity Upgrade	232				67	116	49			232
20	Mckinley Landing Capacity Upgrade	414				120	207	87			414
21		36,123	1,250	1,250	1,683	9,103	11,051	6,656	733	4,398	36,123
General Plant			390.1	391	392	394	397				Total
22	Protection and Communications Rehabilitation	2,174					2,174				2,174
23	Vehicles	1,628			1,628						1,628
24	Metering	278	195				83				278
25	Telecommunications	258					258				258
26	Furniture & Fixtures	237		237							237
27	Tools & Equipment	587				587					587
28		5,162	195	237	1,628	587	2,515	-	-	-	5,162
29	TOTAL	69,768	17,417	8,425	8,885	9,690	13,566	6,656	733	4,398	69,768

The following assumptions are made:

1. Projects with no CWIP balance at the end of year 2008 are considered to be complete and have entered the Utility Plants in Service.
2. Projects entering Plants in Service that are less than \$100k are kept outside the preview of this analysis for the purpose of simplicity.

Q24.3 Please provide the expenditures, broken down by year and scope, since 2001 on the P3 Poleyard Contaminated Site.

A24.3 The requested information is provided below.

Year		Scope
2006	230	Site characterization, site profile, testing, and remediation plan
2007	497	Site remediation and contaminate management
2008	115	Site reclamation and application of risk based standard under Contaminated Sites Regulation
F2009	41	Application of risk based standard under Contaminated Sites Regulation

1 **Q24.4 Please provide a reconciliation and description of the expenditures associated with UBO**
 2 **Old Unit Repowering (Ph.1).**

3 A24.4 The table below reconciles and describes each of the expenditures associated with UBO Old
 4 Unit Repowering (Ph1).

Scope of work	Budget	Actual	Variance	Variance Explanation
		(\$000s)		
Refurbish Tailrace Stoplog Slots	131	125	(6)	Efficiency gains from Contractor completing similar work in 2008
Replace Tailrace Gantry	291	254	(37)	Contractor was able to reduce costs associated with commissioning and design.
Refurbish Tailrace Gates	56	45	(11)	Estimate has allowance for repair to gate structure which, upon inspection was not required.
Engineering & Feasibility Study for Dewatering System	14	12	(2)	Minor under spending, cost less than estimated.
Refurbish Intake Gate Gantry	120	301	181	Original budget of \$120,000 was for completion of 2008 scope of work in 2009, however due to the delay in completing the 2008 portion of the project, those costs were carried over to 2009
Project Management Costs	96	72	(24)	Project administration and Engineering support costs were over estimated.
Total before loadings	708	809	101	
AFUDC & Overheads	385	163	(222)	Equipment transferred to Plant in Service sooner than budgeted.
	1,093	972	(121)	

5 **Q24.5 Please describe the policies for removing Capitalized Inventory from the Plant In Service.**

6 A24.5 The Company reclassifies 90 percent of its inventory balance to Plant in Service based on
 7 historical experience. The adjusting entry reflects a reduction to the estimated year-end
 8 inventory balance.

Q24.6 Please explain why the amount for 2009 additions to “Information Systems” in the table on page 8 is different from the amount for “Computer Equipment” in the Table on page 6.

A24.6 Various components of a capital project may be classified, once in service, to different plant accounts. The 2009 additions to “Information Systems” in the Table on Page 8 is different from the amount for “Computer Equipment” in the Table on Page 6, as the Table on Page 6, also contains components of Protection Upgrades and Metering.

Q24.7 Please explain why the amount for 2009 additions to “Furniture & Fixtures” in the table on page 8 is different from the amount for “Office Furniture & Equipment” in the Table on page 6.

A24.7 The 2009 additions to “Furniture & Fixtures” in the Table on Page 8 is different from the amount for “Office Furniture & Equipment” in the Table on Page 6, as the Table on Page 6, also contains components of Buildings & Distribution Station Automation, which were included in error.

The values will be corrected in the 2010 Updated Revenue Requirements to be filed on November 2, 2009.

Q24.8 Please explain why the amount for 2009 additions to “Tools & Equipment” in the table on page 8 is different from the amount for “Tools and Work Equipment” in the Table on page 6.

A24.8 The 2009 additions to “Tools & Equipment” in the Table on Page 8 is different from the amount for “Tools & Work Equipment” in the Table on Page 6, as the Table on Page 6, also contains components of Distribution Station Automation.

1 **25.0 Reference: Exhibit B-1, Application, Tab 4, Financial Schedules, Table 1 – A , Additions**
2 **to Plant In Service (2010), p. 9**

3 **Q25.1 For each identified project please provide the approved and forecast budget amounts,**
4 **broken down by Account code for each project. Also include a reconciliation against the**
5 **budget amounts provided in the 2009-2010 Capital Expenditure Plan.**

6 A25.1 The following table shows the estimated breakdown of Plant in Service by account code.
7 FortisBC does not estimate expenditures by account code. A breakdown of major Plants in
8 Service (greater than \$100,000) for 2010 is provided in the Table below.

9 FortisBC notes that the inclusion of the components of Distribution Station Automation in
10 "Furniture & Fixture" was in error and will be corrected in the 2010 Updated Revenue
11 Requirements on November 2, 2009. Please also refer to the response to BCUC IR-1 Q 24.7

Additions to Plant in Service for the Year Ending December 31, 2010
(Greater Than \$100k)

<u>Hydraulic Production</u>	Plant in Service	Account Codes							Total
		331	332	333	334	335			
1 LBO & UBO Comm. Network Comp.	351				351				351
2 SLC U1 Life Extension (replace turbine)	16,474			16,474					16,474
3 All Plants Public Safety & Security Ph.1	117	117							117
4 UBO Old Unit Repowering (Ph.1)	461		461						461
5 All Plants Upgrade Station Service Supply	1,230				1,230				1,230
6 SLC Plant Completion	2,215		2,215						2,215
7 COR U2 Life Extension (replace Turbine)	304			304					304
8 UBO Extension Trash Rack Gantry Replacement	417		417						417
9 All Plants Spare Exciter Transformer	126	63				63			126
10 LBO Intake Area Upgrade Ph.2	102		102						102
11 All Plants Lighting Upgrade	306				306				306
12 SLC Tailrace Gate Corrosion Control	114		114						114
13 UBO U5/U6 Tailrace Gate Corrosion Control	139		139						139
14 Sub Total	22,356	180	3,448	16,778	1,887	63	-	-	22,356
<u>Transmission Plant</u>	Plant in Service	Account Codes							Total
		350	350.1	353	355	356	359		
15 Ellison Distribution Source	500			300	100	100			500
16 Okanagan Transmission Reinforcement	48,198			24,099	14,459	9,640			48,198
17 Benvoulin Distribution Source	17,735	441	441	12,415	2,660	1,779			17,735
18 Huth Split Bus	413			413					413
19 Recreation Capacity Increase Stage 1,2,3	3,175			3,175					3,175
20 Kelowna Distribution Capacity Requirements	517			259	155	103			517
21 30L Conversion Slocan / Coffee Creek S/Stns	4,449			3,559	445	445			4,449
22 Transmission Sustaining	4,871	665	665	132	1,871	1,206	332		4,871
23 Station Sustaining	5,358	75	75	5,118	45	45			5,358
24 Sub Total	85,216	1,180	1,180	49,470	19,735	13,318	332	-	85,216
<u>Distribution Plant</u>	Plant in Service	Account Codes							Total
		360	360.1	364	365	368	370	371	
25 Small Capacity Improvements Unplanned	994			288	497	209			994
26 New Connects System Wide	19,070			5,340	5,721	4,005	572	3,432	19,070
27 Airport Way Upgrade (Ellison Feeder - 3)	1,551			450	776	325			1,551
28 Hollywood-3 & Sexsmith-4 Tie	365			106	183	76			365
29 Oliver Feeder-1 New Regulator	137			82	28	28			137
30 Beaver Park Feeder-2 to Fruitvale Feeder-1 Distribution	1,227			736	246	246			1,227
31 Distribution Sustaining	14,525	777	777	8,656	4,022	147	147		14,525
32 Sub Total	37,869	777	777	15,658	11,472	5,035	719	3,432	37,869
<u>General Plant</u>	Plant in Service	Account Codes							Total
		390.1	391	391.1	392	394	397		
33 Distribution Station Automation	1,664	166	333			250	915		1,664
34 Protection, Harmonic Remediation, Communications &	619	51	102			76	390		619
35 Mandatory Reliability Compliance (NERC Related)	2,399			1,200			1,200		2,399
36 Vehicles	2,000				2,000				2,000
37 Metering	559			391			168		559
38 Information Systems	4,494			4,494					4,494
39 Telecommunications	106						106		106
40 Buildings	1,062	743	319						1,062
41 Furniture & Fixtures	393		393						393
42 Tools & Equipment	575					230	345		575
43 Sub Total	13,871	960	1,147	6,085	2,000	556	3,124	-	13,871
44 TOTAL	159,312	3,097	6,552	87,991	35,094	18,972	4,174	3,432	159,312

The reconciliation of budget amounts with 2010 Capital Expenditure Plan, is provided in Tab 7 as follows:

1. Generation Projects: Tab-7, Page-10, Table-7.2.1
2. Transmission & Stations Projects: Tab-7, Page-12, Table-7.2.2
3. Distribution Projects: Tab-7, Page-13, Table-7.2.3
4. Telecommunication Projects: Tab-7, Page-13, Table-7.2.4
5. Information Systems & General Plant Projects: Tab-7, Page-14, Table-7.2.5

Q25.2 Please identify if there are any other costs associated with the Mandatory Reliability Standards Project in excess of the \$2.399 million amount for Mandatory Reliability Compliance (NERC related) in the referenced table and the operating expenditures identified at Tab 3, p. 31 of the Application.

A25.2 No other costs have been identified to date. FortisBC is in the process of confirming its requirements for MRS compliance.

26.0 Reference: Exhibit B-1, Application, Tab 4, Financial Schedules, Table 1-A-1, Additions to Plant in Service (2010), p. 9 and Table 1-D, Contribution in Aid of Construction (CIAC), p. 14

Q26.1 What is FortisBC's CPCN threshold limit?

A26.1 In its 2005 Revenue Requirement Application (Tab 9 - 2005 Capital Plan), FortisBC proposed the following criteria to determine if a project should be the subject of a CPCN application by FortisBC:

- the total project cost is \$20 million or greater; or
- the project is likely to generate significant public concerns; or
- FortisBC believes for any reason that a CPCN application should proceed; or
- after presentation of a Capital Plan to FortisBC stakeholders, a credible majority of those stakeholders express a desire for a CPCN application.

In its Decision accompanying Order G-52-05, the Commission stated its general agreement with these criteria, but noted that the Commission intends to review each year's capital filing and will determine with reasons which project will require a CPCN.

Q26.2 Please provide a brief description of the Okanagan Transmission Reinforcement project. Was this upgrade required as a result of the growth in the Okanagan or equipment age?

A26.2 The OTR Project, approved by Commission Order C-5-08, is comprised of a number of new and upgraded facilities that will result in a complete 230 kV transmission system between Kelowna and Oliver to alleviate system constraints, and to serve the growing load in the Okanagan. The OTR Project principal elements are:

- 28 kilometres of two new parallel (double circuit) 230 kV transmission lines from the Vaseux Lake Terminal station north of Oliver to RG Anderson Terminal station on the east side of Penticton;
- Modifying the BCTC and FortisBC portions of Vaseux Lake Terminal station to facilitate the conversion from 161 kV to 230 kV;
- A new Bentley Terminal station in Oliver, which will connect to the new 230 kV line, existing lines including 11 Line (161 kV) from Warfield, 43 Line (138 kV) to Princeton, as well as area 63 kV sub-transmission lines;

- Replacing 11 kilometres of 161 kV line with 230 kV (40 Line) from the Vaseux Lake Terminal station to the new Bentley Terminal station;
- Installation of capacitor banks at both the FA Lee and DG Bell Terminal stations in Kelowna; and
- The conversion of Oliver Terminal station to a distribution substation.

The OTR Project was required as a result of load growth in the Okanagan.

Q26.3 Since capital additions to rate base are forecast to increase 34% (from \$119m in 2009 to \$159m in 2010), please explain why CIAC balances have only increased 5% in 2010 (from \$128m to \$137m)? Were these capital additions driven mostly by sustaining capital projects instead of new extensions?

A26.3 The CIAC forecasts shown on page 14 of Tab 4 are contributions associated with Distribution New Connects. In 2009 and 2010, CIAC is forecast to be approximately 40% of expenditures for Distribution New Connects, as shown in the following table.

	2009	2010
	(\$000s)	
Distribution New Connects before CIAC (see Table 1-A-1, Tab 4)	15,442	19,070
CIAC (see Table 1-D, Tab 4)	6,500	8,400
CIAC as % of New Connects	42%	44%

For the capital expenditures as a whole, the relative magnitude of sustaining and growth capital expenditures is shown in Table 3.7.1 at page 21 of Tab 3. Distribution New Connects are included in Distribution Growth Projects at line 10 of Table 3.7.1.

27.0 Reference: Exhibit B-1, Application, Tab 4, Financial Schedules, Table 1-F, Adjustment for Capital Expenditure (2010), p. 16

Q27.1 Please confirm that the purpose of this rate base adjustment calculation is to recognize the timing difference of when assets are put into service throughout the year?

A27.1 Confirmed.

Q27.2 What is FortisBC's capitalization policy for non-CPCN projects? Are projects capitalized in the following month after they are put into service or when the projects are entered into the system?

A27.2 FortisBC's Capitalization Policy is uniform for Non-CPCN and CPCN Projects, and is attached as Appendix BCUC A22.5.

Projects are capitalized as follows:

1. If a Project is in service during the first half of a month then it is capitalized the same month
2. If a Project is in service during the second half of a month then it is capitalized the next month

Q27.3 What is FortisBC's capitalization policy for CPCN projects? Are projects capitalized in the following month after they are put into service or at the time of the next Revenue Requirement Application?

A27.3 Please refer to response to BCUC IR Q27.2 above.

Q27.4 Please calculate the adjustment to rate base amount assuming that all capital expenditures (\$151,057) were capitalized at the beginning of the year.

A27.4 If all of the forecast capital plant of \$151.057 million is put into Plant in Service in January 2010, then the adjustment to rate base would be \$69.235 million.

The calculation is shown in the following table.

Table 1 - F (2010) Revised per BCUC IR-1 Q 27.4
Adjustment for Capital Additions, 2010

	Plant in Service	Months in Rate Base	Weighted Value
1 January	151,057	11.5	144,763
2 February	-	10.5	-
3 March	-	9.5	-
4 April	-	8.5	-
5 May	-	7.5	-
6 June	-	6.5	-
7 July	-	5.5	-
8 August	-	4.5	-
9 September	-	3.5	-
10 October	-	2.5	-
11 November	-	1.5	-
12 December	-	0.5	-
13 Total	151,057		144,763
14 Less Simple Average			75,529
15 Adjustment to Rate Base			69,235

16 * Plant in Service is reduced by Contributions in Aid of Construction

28.0 Reference: Exhibit B-1, Application, Tab 4, Financial Schedules, Table 2-B, Power Purchase Expense, p. 19, Table 2-C Water Fees

Total system purchase load has increased 1% in 2009 and a further 1.3% in 2010, however, Purchase Power expense has increased 6% in 2009 then 10% in 2010. This is an indication that the increase is driven primarily by price variance as opposed to volume changes.

Q28.1 Please explain how the prices are set in FortisBC's Power Purchase Agreements. Are they set for the term of the contracts or is there a market index included?

A28.1 FortisBC has two main power purchase contracts, the Power Purchase Agreement with BC Hydro and the Brilliant Power Purchase Agreement. Neither contract is set to a market index but neither are they at a fixed rate. The BC Hydro contract escalates with BC Hydro general rate increases while the Brilliant Contract escalates in accordance with the Brilliant Power Purchase agreement—mainly driven by fixed escalators but also heavily influenced by annual charges such as increases in water fees (escalating at the BC Hydro rate) and sustaining capital charges.

Q28.2 Please provide a supporting calculation for the water fees from 2008 to 2010.

A28.2 2008 (\$000s)

FortisBC first 160 GWh Plant Entitlement use	@ 1,104 \$/GWh	=	\$177
Remaining 1,338 GWh Plant Entitlement use	@ 5,153 \$/GWh	=	\$6,895
Capacity 217.7 MW	@ 3,680 \$/MW-year	=	\$801
Miscellaneous Fees		=	\$5
Total		=	\$7,878

2009

FortisBC first 160 GWh Plant Entitlement use	@ 1,130 \$/GWh	=	\$181
Remaining 1,448 GWh Plant Entitlement use	@ 5,274 \$/GWh	=	\$7,637
Capacity 217.7 MW	@ 3,766 \$/MW-year	=	\$820
Miscellaneous Adjustment		=	\$(75)
Total		=	\$8,563

2010

FortisBC first 160 GWh Plant Entitlement use	@ 1,229 \$/GWh	=	\$197
Remaining 1,392 GWh Plant Entitlement use	@ 5,735 \$/GWh	=	\$7,983
Capacity 217.7 MW	@ 4,095 \$/MW-year	=	\$891
Miscellaneous Adjustment		=	\$(7)
Total		=	\$9,064

- 1 **29.0 Reference: Exhibit B-1, Application, Tab 4, Financial Schedules, Table 2-B Power**
 2 **Purchase Expense, p 19**
 3 **Q29.1 Please expand and restate Table 2-B-Power Purchase Expense by including historical**

Table 2 – B – Power Purchase Expense

	2008	2009	2010
		(GWh)	
1 FortisBC	1,610	1,552	1,593
2 DSM	-	11	30
3 Power Purchases (net of surplus sales)	1,791	1,884	1,889
4 Total System Load (before DSM savings)	3,401	3,447	3,512
5 Less DSM	-	(11)	(30)
6 Total System Load (including DSM savings)	3,401	3,436	3,482
		(\$000s)	
7 Expense - Energy	53,540	59,022	63,467
8 Expense - Capacity	12,624	12,255	13,881
9 Capital Proj., Special, Accounting & other B. Pool Adjustments	(154)	(1,076)	(125)
10 Total Power Purchase Expense	66,010	70,201	77,224

- 4 **data for 2000 to 2007.**
 5 **A29.1 Please refer to table below**

Table 29.1 – Power Purchase Expense

	Actual 2000	Actual 2001	Actual 2002	Actual 2003	Actual 2004	Actual 2005	Actual 2006	Actual 2007	Actual 2008	Forecast 2009	Forecast 2010
1 FortisBC	1488	1509	1507	1518	1491	1625	1,509	1,498	1,610	1,552	1,593
2 DSM	-	-	-	-	-	-	-	-	-	11	30
3 Power Purchases (net of surplus sales)	1504	1517	1620	1664	1736	1720	1,896	1,912	1,791	1,884	1,889
4 Total System Load (excluding DSM savings)										3,447	3,512
5 Less DSM										(11)	(30)
6 Total System Load (including DSM savings)	2,993	3,026	3,127	3,182	3,227	3,345	3,405	3,410	3,401	3,436	3,482
(\$000's)											
7 Expense - Energy	39,160	39,518	46,100	50,320	50,412	50,023	56,264	56,414	53,540	59,022	63,467
8 Expense - Capacity	8,499	13,489	9,126	9,715	11,117	11,387	11,541	12,219	12,624	12,225	13,881
9 Upgrade Life Extension credits and other adjustments	-	(1,956)	(2,965)	(1,599)	(2,515)	(1,006)	(229)	-2,004	(154)	(1,076)	(125)
10 Total Power Purchase Expense	47,659	51,051	52,261	58,436	59,014	60,404	67,576	66,629	66,010	70,201	77,224

Project No. 3698570: Application for 2010 Revenue Requirement

Requestor Name: British Columbia Utilities Commission

Information Request No: 1

Request Date: October 16, 2009

Response Date: October 30, 2009

1 **30.0 Reference: Exhibit B-1, Application, Tab 4, Financial Schedules, Table 2 – D, Wheeling,**
2 **p. 21**

3 **Q30.1 Please provide a detailed breakdown for the wheeling nominations and expenses for**
4 **2008, 2009 and 2010, preferably in the form of an active spreadsheet.**

5 A30.1 The electronic file is attached.

6 **Q30.2 Please provide the 2008 wheeling amounts as forecasted in 2007 and as updated in 2008.**

7 A30.2 Please see the response to BCUC Q4.1 above.

8 **Q30.3 Please provide the 2009 wheeling amounts as forecasted in 2008.**

9 A30.3 Please see the response to BCUC Q4.1 above.

31.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.0 Overview, p. 2 2010 Load Forecast

“The 2010 load forecast includes end-use considerations and customer supplied forecasts.”

Q31.1 For each customer class, please provide details of end-use considerations that were used in determining the 2010 load forecasts. Specifically, please explain how each end-use consideration was used in the forecasting methodology employed by FortisBC.

A31.1 End-use consideration refers to the average Use Per Customer (“UPC”) incorporated for residential and general service sales forecasting. Due to the number of customers and their diversity, UPCs are used for the residential and general service classes. The UPC forecast determines the trend of average usage in households and business, which takes into account changes occurring over time at the average individual end-use level.

Q31.2 Please submit tabular data that lists the classes of customers that FortisBC approached for forecasting information, and identify the sample size and response rate (%) in the response.

A31.2 FortisBC formally approached two customer classes for forecasting 2010 sales; wholesale and industrial. Further discussions with FortisBC customer service representatives were conducted to assess any large sales impacts in the general service class; none were reported.

Class	% Customers Surveyed	% 2010 Sales Surveyed	% 2010 Sales Responded
Wholesale	100	100	100
Industrial	65	95	89

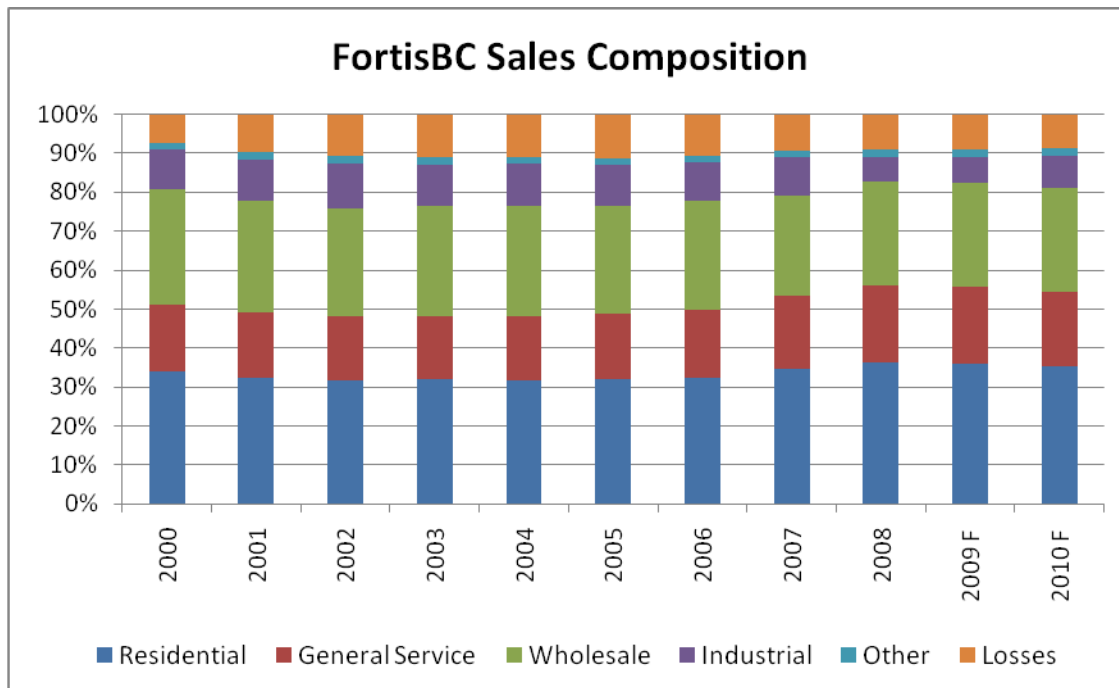
Q31.3 If applicable, please provide a summary table of customer supplied responses citing their considerations and comments.

A31.3 FortisBC will provide this information in confidence to the Commission.

32.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.0 Overview, pp. 2-3, 2010 Load Forecast

Q32.1 Please provide a stacked bar graph and tabular data to illustrate the composition of FortisBC's normalized energy demand during the period 2000 to 2008 for Residential, General Service, Wholesale, Industrial, Other, and Losses. Please also extend the bar graph and tabular data to include forecasted normalized energy demand for 2009 and 2010.

A32.1 Please see the graph and table below.



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Year	Residential	General Service	Wholesale	Industrial	Other	Losses
2000	33.9%	17.1%	29.9%	10.0%	1.9%	7.3%
2001	32.3%	16.8%	28.6%	10.8%	1.7%	9.8%
2002	31.7%	16.5%	27.5%	11.5%	2.0%	10.7%
2003	31.9%	16.4%	28.3%	10.6%	1.9%	10.9%
2004	31.6%	16.7%	28.3%	10.8%	1.6%	11.0%
2005	32.0%	17.0%	27.4%	10.7%	1.7%	11.3%
2006	32.3%	17.5%	27.9%	10.1%	1.6%	10.7%
2007	34.6%	18.9%	25.6%	9.7%	1.8%	9.3%
2008	36.4%	19.8%	26.4%	6.5%	1.7%	9.2%
2009 F	36.0%	19.6%	26.7%	6.8%	1.9%	9.0%
2010 F	35.3%	19.3%	26.4%	8.3%	1.9%	8.8%

- 1 **Q32.2 For the period 2000 to 2009, please discuss observed trends and material changes in the**
2 **usage patterns amongst the various customer groups.**

3 A32.2

Class	Trend
Residential	As a percent of total gross load the residential class has continued to grow, particularly in the Okanagan region. This percentage is forecast to drop slightly in 2010 due to increases forecast in the industrial class.
General Service	Sales in the general service class have seen increases for several years alongside residential growth, but are forecast to slow somewhat in 2009 and 2010 due to the economic slowdown. The 2010 forecast percent decrease of total gross load is further decreased due to increases forecast in the industrial class.
Wholesale	Sales growth in the wholesale class has not kept pace with the strong growth seen in the residential and general service classes.
Industrial	Large decreases in industrial sales were observed beginning in 2007 due to the downturn in the U.S. and Canadian economies and related housing start declines. Both economies are seeing signs of recovery and production increases are forecast for 2009 and 2010.
Other	Irrigation and street light loads as a percent of gross load have remained reasonably consistent throughout the observed period.
Losses	System improvements have decreased the loss percentage, particularly from 2007 forward.

- 1 **33.0 Reference: Exhibit B-1, Application, Tab 5, 2010 Load and Customer Forecast, Section**
 2 **5.0, Overview, Table 5.0, p. 3**
 3 **Q33.1 Please provide a Table in the form of Table 5.0, summarizing the 2008 forecast, approved,**
 4 **and actual values.**
 5 A33.1

	Energy Sales (GWh)	Approved 2008 G-147-07	Forecast 2008 G-193-08	Actual 2008
1	Net Load	3,087	3,051	3,061
2	Losses	309	299	309
3	City of Nelson Loss Adjustment	0	0	0
4	Gross Load	3,396	3,350	3,370
5	Gross Loss Percentage	9.1	9.0	9.2
	System Peak (MW)	Approved 2008	Forecast 2008	Actual 2008
6	Winter Peak	709	709	746
7	Summer Peak	558	558	537
	Customer Count (Year End)	Approved 2008	Forecast 2008	Actual 2008
8	Total Customers	110,763	109,928	109,719
9	Percentage Change	2.6	2.0	1.9

Q33.2 Please explain how the losses in Line 2 of Table 5.0 are calculated in each column.

A33.2 The relevant portions of Table 5.0 from the Preliminary 2010 Revenue Requirements filing are recreated below for illustration purposes.

- Approved 2009 Losses of 296 GWh were as agreed to in the 2009 NSA at 8.7 percent of forecast 2009 gross load;
- Forecast 2009 Losses are calculated from actual losses to July 31, 2009 and forecast losses for the remainder of the year. Line outages due to system configuration issues has resulted in one time additional losses in 2009; and
- Forecast 2010 Losses of 308 GWh are 8.84 percent of the 2010 gross sales forecast as agreed in the 2009 NSA: "System losses to be utilized in Revenue Requirements will be calculated on a two-year rolling average for the remainder of the PBR term". The 2010 forecast loss percentage rate of 8.84 percent of gross load is a result of the average 2007 actual loss rate of 8.99 percent and 2008 actual loss rate of 8.70 percent.

Table 5.0 Normalized System Energy Requirements

	Energy Sales (GWh)	Approved 2009	Forecast 2009	Forecast 2010
1	Net Load	3,107	3,083	3,174
2	Losses	296	305	308
3	City of Nelson Loss Adjustment	(2)	0	0
4	Gross Load	3,401	3,387	3,482
5	Gross Loss Percentage	8.70	9.00	8.84

Q33.3 Please explain how the amount of the Approved 2009 City of Nelson Loss Adjustment is calculated.

A33.3 The incremental losses associated with the increased sales to the City of Nelson are recovered through the wholesale wheeling tariff when the City of Nelson exports its generation. Approved additional sales of 25 GWh to the City of Nelson for its planned exports resulted in a loss adjustment of 2 GWh, which was calculated at the forecast FortisBC loss percentage rate for 2009.

34.0 Reference: Exhibit B-1, Application, Tab 5 Overview, Load and Customer Forecast, Section 5.0 Overview, p. 3; and Tab 7, Capital Expenditures, Section 7.0, p. 2, Forecast Overview and Capital Expenditures Overview

On page 3 of the Application, FortisBC reports that: "Reductions in energy consumption due to the DSM programs are forecast at 30 GWh." Also, DSM expenditures of \$2.8 million (\$4.0 million before tax) are forecast in 2010 and approved under Order G-11-09 as part of the Company's 2009/10 Capital Plan.

Q34.1 Please list each DSM program for 2010 and the projected costs and energy savings for each program. Please also include projected TRC results for each program expressed as a net present value (NPV_{TRC}) of the benefits and costs over a 10 year period. Please discuss all the key assumptions used in the calculations.

A34.1 Details of the forecast 2009/10 DSM spending were filed in the CEP 09/10 and subsequently approved by BCUC Order No. G-11-09. The 2010 plan TRC benefits of \$10,504 minus the TRC cost of \$7,037 yields net Benefits of \$3,467 (all figures are NPV in 000s). These figures are based on an 8% discount rate, program life spans ranging from 3 to 30 years, and BCH Rate 3808 as of April 1, 2008.

2010 PowerSense Summary

<u>Residential Programs:</u>	<u>Energy Savings</u>	<u>TRC</u>	<u>Benefits</u>	<u>B/C Ratio</u>
Home Improvement	1,953,000	816	968	1.2
New Home	1,392,000	568	741	1.3
Heat Pumps	6,377,000	1,493	2,491	1.7
Residential Lighting	<u>2,383,000</u>	<u>278</u>	<u>614</u>	<u>2.2</u>
	12,105,000	3,156	4,814	1.5
<u>General Service Programs:</u>				
Lighting	5,303,500	1,745	1,946	1.1
Building and Process Improvement	<u>6,751,500</u>	<u>1,578</u>	<u>2,774</u>	<u>1.8</u>
	12,055,000	3,323	4,720	1.4
<u>Industrial Programs:</u>				
Compressed Air	937,700	118	163	1.4
Industrial Efficiency	<u>2,412,300</u>	<u>409</u>	<u>807</u>	<u>2.0</u>
	3,350,000	527	970	1.8
Totals	27,510,000	7,005	10,504	1.5

Q34.1.1 With regards to the key assumptions please discuss the sensitivity of results arising from changes in the assumptions (e.g. a certain change in variable x causes a certain change in the results).

A34.1.1 A sensitivity analysis has not been done.

Q34.2 For 2010, what is the probability and associated confidence levels that the proposed DSM programs will achieve:

Q34.2.1 The DSM forecasted budget expenditures; and

Q34.2.2 The DSM forecasted energy savings?

A34.2 The following tables show historical DSM spending, and energy savings, and the graphical presentation in A 74.2 shows that expenditures track savings. Energy savings have historically exceeded forecast.

CUMULATIVE FORTISBC COSTS			
To June 30, 2009			
Costs by Year (\$000s)			
Year	Plan	Actual	% of Plan
2000	1,543	1,697	110%
2001	1,522	1,425	94%
2002	1,661	1,555	94%
2003	1,840	1,706	93%
2004	1,814	1,989	110%
2005	1,835	2,350	128%
2006	2,234	2,241	100%
2007	2,474	2,549	103%
2008	2,355	2,683	114%
2009 YTD	1,832	1,756	96%

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CUMULATIVE ENERGY SAVINGS			
To June 30, 2009			
Energy Savings by Year (GW.h)			
Year	Plan	Actual	% of Plan
2000	12.0	17.5	146%
2001	12.5	16.9	135%
2002	14.1	16.3	116%
2003	15.6	18.5	119%
2004	14.7	21.3	145%
2005	19.0	23.9	126%
2006	20.4	23.1	113%
2007	21.8	27.9	128%
2008	19.5	27.3	140%
2009 YTD	12.7	15.3	120%

1

35.0 Reference: Exhibit B-1, Application, Tab 5, Section 5.0 Overview, Load and Customer Forecast, p. 3 2010 Forecast Overview

Q35.1 Please explain how each of the DSM programs that are contemplated for 2010 will be evaluated by providing a description of the framework and details of both the key individual metrics that will be measured and the processes that will be used to monitor and report the activities. What are the anticipated outcomes associated with each of the DSM programs?

A35.1 The Company filed a 3-year DSM Monitoring and Evaluation ("M&E") Plan on December 29, 2008, which will guide its M&E efforts for the period 2009-2011.

Q35.2 Does FortisBC have a formulated Evaluation Plan in place or plans to develop one which will:

Q35.2.1 Measure energy efficiency of DSM program in terms of individual and summative evaluations;

A35.2.1 The M&E Plan referenced in A35.1 provides overall guidance on M&E policy matters, whereas the individual program evaluation reports will, in turn, provide feedback on the specific programs being evaluated. The auditor's M&E report recommendations are subsequently incorporated into program design and delivery.

Q35.2.2 Assess how the various DSM programs can be improved by way of a formative or process evaluation;

A35.2.2 This information is contained in the December 2008 M&E Evaluation.

Q35.2.3 Measure and verify the level of energy savings achieved;

A35.2.3 This information is contained in the December 2008 M&E Evaluation.

Q35.2.4 Measure the benefit and cost effectiveness of the various DSM programs;

A35.2.4 This information is contained in the December 2008 M&E Evaluation.

Q35.2.5 Provide audited evaluation reports;

A35.2.5 This information is contained in the December 2008 M&E Evaluation.

Q35.2.6 Provide ongoing feedback, corrective and constructive guidance regarding the implementation of programs; and/or

A35.2.6 Please refer to A35.2.1.

Q35.2.7 Serve as assessment tools to determine the continuing need for the programs?

A35.2.7 Please refer to A35.2.1.

Q35.3 As it relates to the design and evaluation of DSM programs, please identify historical expenditures by FortisBC for each of the last 5 years and submit spending plans/budgets for 2010 to develop, implement, and assess, and verify the impact of its DSM programs.

A35.3 The historical M&E expenditures are not broken out, as they are incorporated into the overall Planning & Evaluation budget. In the current fiscal year approximately \$100,000 is allocated for M&E. In addition there is in-kind staff effort, e.g. retrieving DSM project files and forwarding pre/post billing (kWh) data.

Q35.4 Does FortisBC currently have the necessary in-house human resources to design and implement an evaluation, measurement, and verification of DSM programs? If not, what will be required to implement the necessary HR resources in place?

A35.4 The Company has used external parties, not in-house human resources, to produce M&E reports. These will continue to be undertaken by third-party consultants with the appropriate expertise. The Company's DSM management oversees the process and ensures the M&E reports' recommendations are implemented into program design and delivery.

36.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.1, Economic and Demographic Outlook, p. 4

“The Conference Board of Canada is forecasting British Columbia Gross Domestic Product (“GDP”) to grow by 3.4 percent in 2010¹, following a decline of 2.5 percent in 2009. The 2010 GDP growth forecast includes forestry industry increases of 1.3 percent; construction, 10.1 percent; and service industries, 3.1 percent. All British Columbia industries are expected to experience modest growth starting in 2010, resulting in robust economic growth for a number of years.”

Q36.1 Please describe the extent to which the above information was applied in the formulation of FortisBC’s 2010 load forecast.

A36.1 The information referenced above was applied in the formulation of FortisBC’s 2010 load forecast as follows:

- The 2009 and 2010 total GDP forecasts were used directly in determining general service customer growth forecasts. Through detailed analysis it was determined that general service customer growth has a slightly better correlation to GDP than to population growth projections. In prior year forecasts, general service customer growth was tied to population growth projections; and
- The 2010 Conference Board GDP growth forecasts for the forestry, construction and service industries were used as a guide only for assessing the reasonability of the sales growth forecasts in the industrial and general service classes.

Q36.2 Please provide a copy of the referenced Conference Board of Canada report.

A36.2 Please refer to Appendix BCUC 36.2.

37.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.1, Economic and Demographic Outlook, p. 4

“Both housing starts and population growth in the FortisBC service territory are expected to slow from those seen in the years prior to the recent recession. Housing starts are expected to recover by 2013 before gradually declining over the long term due to demographic shifts².”

Q37.1 Please describe the extent to which the above information was applied in the formulation of FortisBC’s 2010 load forecast.

A37.1 Housing start projections from CHMC are not used directly in FortisBC’s load forecast model. As the projections from CHMC are not specific to FortisBC’s service territory, these forecasts are used for determining the reasonableness of customer count growth only. FortisBC receives population projections from BC Stats specific to its service territory which are directly used for determining residential customer growth.

Q37.2 Please provide a copy of the referenced CMHC Housing Market Outlook, Second Quarter 2009 report.

A37.2 The report is attached as Appendix BCUC 37.2.

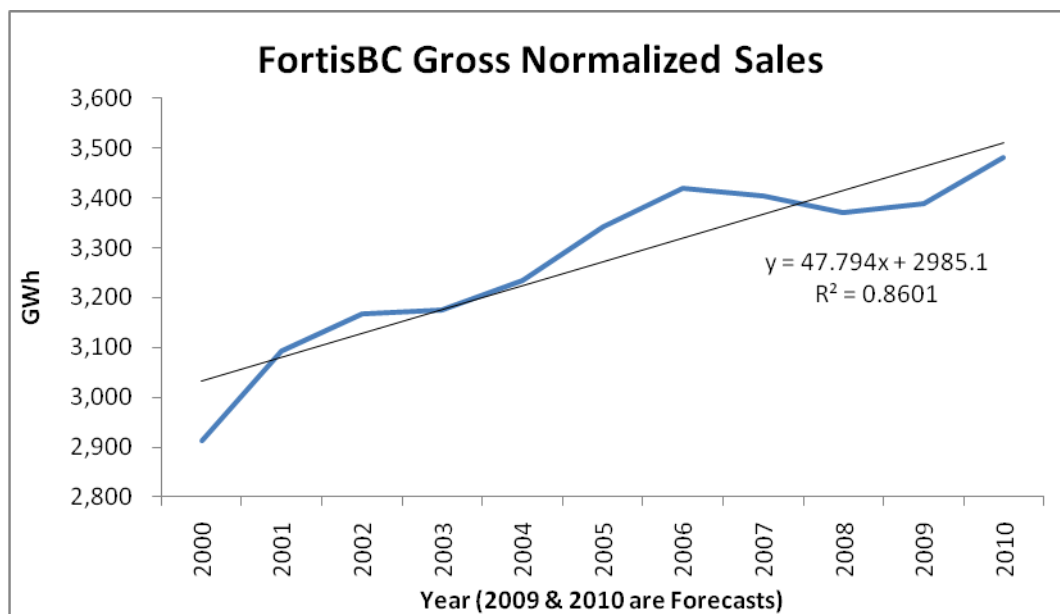
1 **38.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.2,**
2 **Load Forecast, p. 5**

3 **Q38.1 On a consolidated basis for all customer groups, please provide a line graph and tabular**
4 **data in a fully functioning electronic spreadsheet that summarize FortisBC's gross**
5 **normalized demand for the period 2000 to 2008. Please also include forecasted gross**
6 **normalized demand for 2009 and 2010. Wherever possible, please include a trend line**
7 **and linear equation.**

8 **A38.1** The electronic spreadsheet is attached. The data in the spreadsheet is summarized below.

Year	FortisBC Gross Load (GWh)
2000 actual	2,914
2001 actual	3,094
2002 actual	3,169
2003 actual	3,176
2004 actual	3,233
2005 actual	3,343
2006 actual	3,419
2007 actual	3,403
2008 actual	3,370
2009 forecast	3,387
2010 forecast	3,482

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SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.927434313
R Square	0.860134405
Adjusted R Square	0.844593783
Standard Error	67.37862618
Observations	11

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	251270.9227	251270.9227	55.34749009	3.93513E-05
Residual	9	40858.9134	4539.879266		
Total	10	292129.8361			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-92555.42467	12880.7374	-7.185568793	5.16321E-05	-121693.677	-63417.17237	-121693.677	-63417.17237
X Variable 1	47.79415357	6.424299938	7.439589377	3.93513E-05	33.26137748	62.32692966	33.26137748	62.32692966

Q38.2 Please discuss the relevant factors that have influenced the general trends in energy demand over the past 10 years.

1 A38.2 FortisBC has experienced considerable growth in residential and general service construction
2 over the past several years. Growth in large retail stores in the Okanagan has made it a major
3 centre for trade and commerce in the interior of BC. Industries in the FortisBC service territory
4 include diversified manufacturing, high technology, health care, agriculture, mining, forestry,
5 tourism, fruit processing, wine production, and post-secondary education, many of which have
6 experienced growth through investment. The international airport and rapidly expanding
7 university campus have emerged as key growth drivers in the Okanagan. Growth in the many
8 industries in FortisBC's service territory has stimulated direct and indirect employment, capital
9 expenditures, research dollars, and demand for housing.

10 Population growth in the Okanagan has outpaced growth in the province overall due to
11 migration and retirees. The Okanagan continues to be one of the fastest growing areas in BC
12 with manufacturing and tourism attracting new businesses and residents to the area. Migration
13 and resort home purchases will continue to fuel demand for housing, particularly since interest
14 rates in the current market are low.

15 Offsetting the large increases in residential and general service sales are decreases in the
16 forestry and manufacturing sectors which have been affected by the downturn in the Canadian
17 and United States economies in the past two years. Combined with years of overbuilding, new
18 home construction has taken a large hit, but residential customer growth is continuing. Most
19 industries in the FortisBC service territory are expecting to gain strength and stability in 2010.
20 While some forestry related companies are permanently closed, other industrial sales have
21 gained strength.

Q38.3 Please apply regression analysis of demand relationships for Residential, General Service, Wholesale, and Industrial customer groups to compare the demand for electricity with the relevant factors (“independent variables”) that FortisBC is relying upon in its forecast for 2010. Please indicate whether the independent variables are statistically significant.

A38.3

Table BCUC 38.3 – Independent 2010 forecast variables

CLASS		VARIABLE	SIGNIFICANCE (Adjusted R Square)
Residential	UPC	Time	-0.083465965
Residential	Customer Growth	Population	0.875410258
General Service	UPC	Time	0.107723
General Service	Customer Growth	GDP	0.9785624
Industrial	Load	Time	0.385199196
Wholesale	Load	Time	0.817159

While Table BCUC 38.3 above shows Adjusted R Square significance calculations for load forecasts based on linear regression, the majority of industrial customer load forecasts (as outlined in the responses to BCUC IR1 Q31.2) for 2010 are based on individual surveys and not simple regression. For the 2010 wholesale sales forecast 100 percent is based on direct surveys and discussions with wholesale customers.

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BCUC IR1 – Table 38.3 (a) - Residential UPC (MWh/customer)								
SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.192143546							
R Square	0.036919142							
Adjusted R Square	-0.083465965							
Standard Error	0.197022945							
Observations	10							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	0.011904535	0.011904535	0.306675327	0.59486291			
Residual	8	0.310544326	0.038818041					
Total	9	0.322448861						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	- 11.43651634	43.48068106	- 0.263025235	0.799178384	- 111.7031466	88.83011389	- 111.7031466	88.83011389
X Variable 1	0.012012385	0.021691512	0.553782743	0.59486291	- 0.038008332	0.062033102	- 0.038008332	0.062033102

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BCUC IR1 – Table 38.3 (b) - Residential Customer Growth								
20 YEAR - SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.939131308							
R Square	0.881967613							
Adjusted R Square	0.875410258							
Standard Error	3821.443343							
Observations	20							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	1964168776	1964168776	134.5005167	8.7236E-10			
Residual	18	262861726	14603429.22					
Total	19	2227030502						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-45349.79567	10532.17053	-4.305835682	0.000425556	-67477.06482	23222.52651	-67477.06482	23222.52651
X Variable 1	0.509451918	0.043927979	11.59743578	8.7236E-10	0.417162659	0.601741178	0.417162659	0.601741178

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BCUC IR1 – Table 38.3 (c) – General Service UPC (MWh/customer)								
SUMMARY OUTPUT								
<i>Regression Statistics</i>								
Multiple R	0.454824							
R Square	0.206865							
Adjusted R Square	0.107723							
Standard Error	1.34965							
Observations	10							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	3.800766	3.800766	2.086551	0.186601			
Residual	8	14.57244	1.821555					
Total	9	18.3732						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-372.183	297.8521	-1.24956	0.246779	-1059.03	314.6647	-1059.03	314.6647
X Variable 1	0.214639	0.148592	1.44449	0.186601	-0.12801	0.557292	-0.12801	0.557292

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BCUC IR1 – Table 38.3 (d) – General Service Customer Growth								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.9897932							
R Square	0.9796907							
Adjusted R Square	0.9785624							
Standard Error	2987.9575							
Observations	20							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	7.752E+09	7.752E+09	868.29148	1.1E-16			
Residual	18	160702019	8927890					
Total	19	7.913E+09						
Coefficients								
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-17832.2	4626.9862	-3.8539558	0.0011628	-27553.137	-8111.2628	-27553.137	-8111.2628
X Variable 1	15.417981	0.5232325	29.466786	1.1E-16	14.31871	16.517252	14.31871	16.517252

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BCUC IR1 – Table 38.3 (e) – Industrial Sales								
SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.646186609							
R Square	0.417557133							
Adjusted R Square	0.385199196							
Standard Error	55787.06001							
Observations	20							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	4.02E+10	4.02E+10	12.90432	0.002082758			
Residual	18	5.6E+10	3.11E+09					
Total	19	9.62E+10						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	15881880.97	4323432	3.673443	0.001738	6798687.833	24965074.11	6798687.833	24965074.11
X Variable 1	-7771.237692	2163.329	-3.59226	0.002083	-12316.2241	-3226.251288	-12316.2241	-3226.251288

Project No. 3698570: Application for 2010 Revenue Requirement
Requestor Name: British Columbia Utilities Commission
Information Request No: 1
Request Date: October 16, 2009
Response Date: October 30, 2009

BCUC IR1 – Table 38.3 (f) – Wholesale Sales

SUMMARY OUTPUT

<i>Regression Statistics</i>								
Multiple R	0.909276							
R Square	0.826782							
Adjusted R Square	0.817159							
Standard Error	27260.72							
Observations	20							
ANOVA								
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
Regression	1	6.38E+10	6.38E+10	85.9154	2.83E-08			
Residual	18	1.34E+10	7.43E+08					
Total	19	7.72E+10						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	151511.3	75132.48	2.016589	0.058909	-6336.18	309358.8	-6336.18	309358.8
X Variable 1	2.904601	0.313365	9.269056	2.83E-08	2.246245	3.562958	2.246245	3.562958

39.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.2, Forecast, p. 5

“The 2010 forecast is based on population growth estimates produced by BC Stats³ for the FortisBC service area and the historical relationship between FortisBC customer and load growth. “

Q39.1 Please discuss how demographic trends in the FortisBC territory impact the overall demand for electricity. Wherever possible, please provide supporting data and analyses.

A39.1 As outlined in the tables below, there is a strong correlation between customer and population growth, accounting for the largest portion of the increases seen in the FortisBC region from the period 2000 to the forecast period of 2010. FortisBC population during this period is forecast to grow by 11.5 percent with net load growth increasing by 17.5 percent.

Year	Direct Customers	FortisBC Population
2000	87,832	246,730
2001	89,222	246,821
2002	92,804	247,413
2003	95,070	248,668
2004	97,317	248,409
2005	99,745	251,709
2006	105,906	255,664
2007	107,724	262,888
2008	109,719	269,330
2009 F	111,190	272,380
2010 F	112,911	275,125

<i>Correlation</i>	<i>Column 1</i>
Column 1	1
Column 2	0.93179201

For the period 2000 to the forecast period of 2010 population growth is the main component of load growth in the FortisBC region. Average use for the residential class during this period increased by 1 percent and general service average use increased by 2 percent, which accounts for a portion of the load increase.

Load growth is also occurring because of increased operations and storefronts by customers in the Okanagan such as UBC Okanagan, Wal-Mart and the Kelowna airport.

Q39.2 Please discuss what impact the anticipated gradual decline in population growth rates in the region will have on the electricity demand projections for 2010.

A39.2 Population growth directly impacts residential customer growth and sales, and indirectly impacts general service and other industry growth. As residents move into FortisBC's service territory, other businesses and services are established to fuel the additional demand created by these new residents. Similarly, declines in population growth can result in slower sales growth in many customer classes compared to those seen in the past few years. BC Stats forecasts a gradual decline in the population growth rate due to expected natural decreases overshadowing net migration. Annual population growth peaked in 2007 with 2.8 percent growth, followed by 2.5 percent growth in 2008 and forecast 1.1 percent in 2009. BC Stats is projecting the population growth rate to be steady around 1 percent for the next several years.

Q39.3 Please provide a copy of the referenced BC Stats report.

A39.3 Please refer to Appendix BCUC 39.3.

40.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.2.1, Residential Class Forecast, p. 6

On page 6 the Application states: "Average residential usage is projected using the 10-year average annual UPC rate per customer as shown in Figure 5.2.1 below. The 2010 forecast of 12.69 megawatt hours ("MWh") per customer is based on 2009 year to date usage to July, with the remainder of 2009 as forecast, and UPC trends."

Q40.1 FortisBC is forecasting a UPC rate of 12.69 MWh for 2010. The 10 year trend would suggest a slightly higher UPC rate of 12.71 MWh. What impact would this difference in UPC rate have on the forecasted Residential load for 2010?

A40.1 At the forecast UPC rate of 12.69 MWh for 2010, residential sales are forecast at 1,228 GWh. At the UPC rate of 12.71 MWh, residential sales in 2010 would increase by 2 GWh to 1,230 GWh.

Q40.2 Please provide an electronic version of the graph and supporting tabular data illustrated in Figure 5.2.1.

A40.2 The electronic versions are attached.

1 **41.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.2.2,**
2 **General Service Class, p. 7**

3 **Q41.1 What UPC rate was used for General Service class in 2010? Please discuss how this rate**
4 **compares to the historical 10 year UPC trend.**

5 A41.1 The 2010 General Service class sales forecast incorporates UPC of 59.04 MWh/customer. The
6 ten year trend as outlined in Figure 5.2.2 in the Application suggests the 2010 UPC should be
7 around 59.20 MWh. However, like the residential class, the general service class has seen
8 decreases in average use during 2009. In the FortisBC region this is likely due in part to
9 temporary store closures and decreased store hours during the economic downturn. Unlike the
10 residential UPC which has historically moved in small increments each year, the general service
11 UPC has seen larger annual changes.

12 **Q41.2 Please provide an electronic version of the graph and supporting tabular data illustrated**
13 **in Figure 5.2.2.**

14 A41.2 The electronic version is attached.

42.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.2.4, Wholesale Class, pp. 8-9

Q42.1 Please provide the volume of power purchases nominated for the City of Nelson for the past 5 years.

A42.1 The load forecast for the City of Nelson for the last five years is as follows:

FORECAST SALES TO CITY OF NELSON	
	GWh
2005	81.9
2006	84.4
2007	82.0
2008	86.0
2009	113.5

Q42.2 Please confirm that FortisBC has included the volume of export sales to the City of Nelson in the previous year's nominations for Purchase Power? If so, please identify the amounts that pertain to export power in both 2008 and 2009.

A42.2 Please refer to BCUC 42.1 for the City of Nelson load forecast. Of this forecast, 25 GWh pertained to City of Nelson export power in 2009 with no provision for City of Nelson export power in 2008.

Q42.3 Please explain if FortisBC plans to adjust the nominated amounts of power purchases from BC Hydro to compensate for the amount disallowed for the City of Nelson's export portion. If so, please provide contract terms of the Power Purchase Agreement with BC Hydro and whether there are any penalties arising from the revised the nominated purchase power volumes for 2010 and beyond.

A42.3 The City of Nelson is not engaged in any market export activity at this time and is not expected to do so in the future. Therefore, no adjustment is required.

1 **Q42.4 Was FortisBC able to recover any of the lost wholesale revenues (originally**
2 **forecast from the City of Nelson) with surplus sales to other parties? If so, please**
3 **identify the amount of surplus sales resulting from this transaction in 2009. Please**
4 **discuss FortisBC's confidence on whether this amount of surplus sales will continue into**
5 **the future.**

6 A42.4 The Company was able to fully sell all surplus power in 2009 and fully expects to continue to be
7 able to do so in the future. It is not known how the Company's 2009 surplus sales would have
8 been impacted under an alternative scenario in which the City of Nelson continued to make
9 export sales.

10 **Q42.5 Please provide a detailed breakdown which reconciles the disallowed 12GWh of the City**
11 **of Nelson's exported power and the resulting financial impact of \$18,000. Please identify**
12 **the transactions and which year they pertain to. Include the calculation of the pre-tax**
13 **amount, net-of tax amount, identify any lost wheeling revenues, and the readjusted**
14 **power purchase costs for 2009.**

A42.5 The transactions in Table 42.5 below all relate to the year 2009. The 2009 NSA provided that the Company would true up in 2010 Revenue Requirements the difference between the 25 GWh of increased sales forecast for Nelson in respect of exported power, and the actual, if the Commission approved the BC Hydro application.

2009 NELSON EXPORT ESTIMATED NET IMPACT TO FORTISBC	
BASED ON FORECAST less ACTUAL EXPORTS	
Rates	
Rate Schedule 41 All kWh (Jan 1 2009 Tariff Rate)	0.036980
Energy (3808)-Jan to Mar	0.028492
Energy (3808)-Apr to May	0.031138
Revenue	
2009 Actual Export Energy (kWh)	12,931,056
Energy Revenue - Actual	478,190
Actual Transmission Access Revenue	4,574
2009 Total Revenue from Forecast	\$ 482,765
Power Purchase costs	
2009 Actual Export Energy (kWh)	12,931,056
Energy Cost	384,813
Total Energy Cost	\$ 384,813
NET ACTUAL 2009 REVENUE	\$ 97,951
From 2009 Revenue Requirements	
Forecast 2009 Revenue (at May 2008 Tariff Rate 0.03535))	883,750
Forecast 2009 Power Purchase Costs	759,602
Forecast Net Impact to Revenue	124,148
2009 NET IMPACT FOR NELSON EXPORTS	
Forecast Net Impact to Revenue	124,148
Actual Net Impact to Revenue	97,951
VARIANCE (NET LOST INCOME)	\$ (26,197)

Q42.6 If there were anticipated wheeling revenues pertaining to the City of Nelson's exports, please explain where this is reconciled in the regulatory schedules.

A42.6 There was no wheeling revenue included in the 2009 Revenue Requirements filing pertaining to the City of Nelson exports. The impact of the true up including actual wheeling revenue is shown on Line 4, Table 3.5.1, Page 18, Tab 3 of the Preliminary 2010 Revenue Requirements Application."

Q42.7 Please confirm that FortisBC is proposing to collect a total of \$105,000 (\$18,000 + \$87,000 in legal fees), relating to the issue of disallowed export power, from rate payers in 2010.

A42.7 Confirmed.

Q42.8 Please explain why FortisBC deems it appropriate that existing ratepayers should be held accountable for these charges?

A42.8 The impact of lower sales to the City of Nelson as a result of the disallowed export of power was an unresolved issue in FortisBC's 2009 Customer and Load Forecast at the time of the 2009 NSP. As the BC Hydro application to amend the PPA was before the Commission at the time of the NSP, the parties agreed that the outcome of the application should be reflected in rates and included the true-up provision in the settlement agreement Order G-193-08.

As explained in the response to Q10.2 above, the Power Coordination Agreement between FortisBC and the City of Nelson was prudent and did not conflict with the existing PPA between FortisBC and BC Hydro (otherwise BC Hydro would not have applied for its amendment). Therefore the costs of responding to BC Hydro's application are properly recoverable through rates.

Q42.9 Does FortisBC feel that the disallowance of supplying export power meet the definition of a "Z" factor? Please support your answer.

A42.9 FortisBC did not apply for the impact of disallowing the City of Nelson's power exports as a "Z" factor provision. Nevertheless, the definition of a "Z" factor under the terms of the PBR Plan includes events as agreed to by the parties in the Negotiated Settlement Process (see Tab 3, page 7).

Q42.10 Discuss FortisBC's position on treating this loss as a charge to shareholder earnings to 2010?

A42.10 There is no basis upon which to treat these costs as a loss to shareholders and such treatment would be in a direct breach of the 2009 NSA and Order G-193-08. As noted above, the revenue impact from the change in load forecast was previously agreed to by the parties to the 2009 NSP. The UA and PCA were executed, for the benefit of its customer and without harm to any other FortisBC customers, in accordance with FortisBC's approved Tariff and did not conflict with any existing contracts. Having regard to the interests of its customers, FortisBC did not have the option to fail to respond to BC Hydro's application to amend the PPA therefore the regulatory costs were prudently incurred.

43.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.2, Load Forecasts, pp. 5-9

Q43.1 Longer-term trends in the customer usage patterns and demand for electricity are influenced primarily by underlying economic, demographic, and technological changes. These include: growth in population and employment; changes in prevailing prices; growth in electricity demand, and changes in the efficiency profiles of residential and commercial buildings and the appliances within them. With respect to these factors:

Q43.1.1 Please describe what underlying qualitative and quantitative assumptions FortisBC has made in the 2009 projection and the 2010 forecast.

A43.1.1

General Economic	<ol style="list-style-type: none">1. There are encouraging signs that the worst of the recent downturn in the business cycle may be over.2. Customer growth will slow down to longer-term historical trends.3. Most British Columbia industries are expecting modest growth starting in 2010, resulting in healthy economic growth for a number of years.4. Housing starts and construction have eased from historical highs due to slower economic growth, but as the economy and job market continue to improve housing starts are expected to increase to meet demand.
Residential	<ol style="list-style-type: none">5. The long term outlook for residential load growth is largely determined by demographic factors.6. Slowing population growth and aging of baby boomers will slow growth in domestic demand, altering consumer spending habits and housing activity.7. Continued customer growth is expected, although at a slightly slower rate than in recent years due to slowing population growth.8. 2009 residential customer growth is steady but slower than growth seen in the past six years.9. Housing starts will recover by 2015 before gradually declining over the long term.10. The average use per customer dropped in 2009, likely due to the economic downturn and increasing energy conservation awareness. Several years of large customer growth meant a rise in average use as well. The residential average use per customer has now flattened out.
General Service	<ol style="list-style-type: none">11. Forecast growth for British Columbia Gross Domestic Product is 3.4 percent in 2010, which directly follows a decline in BC GDP in 2009 of 2.5 percent.12. GDP is forecast to grow at an annual rate of 1.9 percent from 2008-2030.

	<p>13. Review of 2009 customer growth, actual sales and usage patterns reveals that general service customer growth has slowed substantially but since economic conditions are likely to improve over the next few years, general service customer growth is expected to recover as well.</p>
Wholesale	<p>14. 2009 wholesale sales growth is expected to be comparable to annual growth seen in prior years.</p> <p>15. Due to slower population growth, constraint of area, and other conditions, growth in wholesale will continue to be forecast lower than the FortisBC service territory as a whole.</p> <p>16. Surveys and discussions with customers outline continued growth in energy requirements due to new construction scheduled for 2010.</p>
Industrial	<p>17. 2009 sales for the majority of industrial customers has been stable, with 2009 annual sales expected to be close to 2008 levels.</p> <p>18. Industrial customers forecast production increases in 2009 and 2010 due to improving domestic and export demand.</p> <p>19. 2010 GDP growth in the forestry industry is forecast at 1.3 percent.</p> <p>20. This industry is expected to gain strength and stability in 2010 although long term industrial growth has been, and continues to be, forecast at close to zero percent.</p> <p>21. Forestry will likely continue to struggle while the United States housing market is troubled, the Canadian dollar strong and until existing housing stock is sold.</p> <p>22. As the population ages there is a reduction in demand for housing which will lead to further demand reductions for wood products.</p> <p>23. Industrial sales will not recover to pre-recession levels due to the permanent closure of mills and continued low demand.</p>

Q43.1.2 Please provide data which illustrate the sensitivity that these factors will have in respect to the short-term demand for electricity in 2010.

A43.1.2 The largest risks/sensitivities in the 2010 forecast are in customer growth, average use per customer and industrial sales. There are encouraging signs that the economy is out of recession and that modest growth will occur for most industrial industry in 2010. Downside risk is prevalent in the Industrial and General Service 2010 forecast especially if economic recovery does not happen soon.

The table below provides discussion and analysis on the sensitivities in the 2010 customer and load forecast. Principal sensitivities in the table are highlighted.

Residential		
Customer Growth	1	Incorporated 20 year customer growth rate which produced a 1.4% customer increase for 2010.
	2	Higher 10 year growth rate would give a 2010 customer growth rate of 2.3%.
		An increase over the 2010 filed forecast of 789 customers.
Use Per Customer (UPC)	3	Uses 2009 UPC as the base at 12.69 MWh/Customer.
	4	The 2000 to 2009 UPC trend may suggest a slightly higher UPC of 12.71 MWh for 2010.
	5	The residential UPC increased steadily over the past five years at an average annual rate of 0.09 MWh/customer.
		If this trend continued into 2010 the UPC could be 13.05 MWh (2008 MWh 12.90 + 0.09 increase).
Sales		If #2 were to occur 2010 sales could increase by 5 GWh.
		If #4 were to occur 2010 sales could increase by 2 GWh.
		If #5 were to occur 2010 sales could increase by 36 GWh.
General Service		
Customer Growth	1	Incorporated 20 year customer growth rate which produced a 2.8% customer increase for 2010.
	2	Higher 10 year growth rate would give a 2010 customer growth rate of 3.4%.
		An increase over the 2010 filed forecast of 63 customers.
Use Per Customer (UPC)	3	Uses 2009 UPC as the base at 59.04 MWh/Customer.
	4	The 2000 to 2009 UPC trend may suggest a slightly higher UPC of 59.20 MWh for 2010.
	5	The general service UPC increased steadily over the past five years at an average annual rate of 0.83 MWh/customer.
		If this trend continued into 2010 the UPC could be 60.96 MWh (60.13 2008 MWh + 0.83 increase).

Sales		If #2 were to occur 2010 sales could increase by 1.9 GWh.
		If #4 were to occur 2010 sales could increase by 4.3 GWh.
		If #5 were to occur 2010 sales could increase by 24.6 GWh.
Wholesale		
	1	2010 forecast sale increases totaling 1.7%. This is reasonable given the development in the wholesale areas.
	2	Average annual growth from 2004 to 2008 was 1.5%.
	3	Mill restart in BC Hydro Lardeau region increased requirements from 2008 sales of 7 GWh to the 2010 forecast..
	4	Not included in the 2010 wholesale forecast is a possible increase for Tolko within the City of Kelowna service area.
		This could add additional 70 GWh in wholesale sales for 2010 and increase 2010 growth by an additional 7.8%.
Industrial		
	1	Zellstoff Celgar's successful bid into the BC Hydro Bioenergy Call will increase its energy requirement in 2010 by 39 GWh.
	2	International Forest Products is expecting to increase production and its energy requirements in 2010.
	3	Excluding Celgar, forestry and related companies account for 36% of 2010 forecast industrial load (approximately 105 GWh).

Q43.2 Please explain FortisBC's electrical demand forecast methodology for 2009 and 2010 for Residential, General Service, Wholesale, and Industrial customer groups.

A43.2 Residential

Energy requirements for the Residential class are determined by:

- The number of residential customers; and
- The average Use Per Customer ("UPC")
- Forecast residential customer growth is derived from the historical relationship of FortisBC customer growth and population growth and forecast population projections. The 2009 residential customer forecast is determined from year to date July actual growth and takes into account forecasts and historical monthly growth patterns. The 2010 customer forecast builds on the 2009 expected count and forecast growth.
- Average use per customer for 2009 is determined from year to date July actual average usage and the balance of the current year is forecast based on expected customer growth and sales. Residential average UPC for 2010 is projected using 2009 as the base year and the 10-year average annual UPC rate per customer.

1 General Service

2 Energy requirements for the General Service class are determined by:

- 3 • The number of residential customers; and
4 • The average Use Per Customer ("UPC")

5 Energy consumption in the general service class is closely tied with economic activity. The
6 2009 General Service customer forecast is determined from year to date July actual growth
7 while also taking into account forecasts and historical monthly growth patterns. Forecast
8 customer growth for 2010 is determined from the historical relationship between annual growth
9 of the number of General Service accounts and GDP.

10 Wholesale

11 Forecast 2009 Wholesale sales are based on year to date July actual sales plus forecasts for
12 the balance of the current year. The forecasts for the remaining months of 2009 are as
13 approved in the 2009 NSA less forecast additional City of Nelson sales for its planned exports.
14 Forecast 2010 growth is based on direct discussions and surveys to Wholesale customers, less
15 anticipated DSM savings.

16 Industrial

17 FortisBC determines industrial load requirements through a combination of historical growth
18 patterns, surveys, and discussions with companies. As outlined in the response to BCUC IR
19 31.2 and 31.3, the greater part of the industrial sales forecast for 2009 and 2010 are based on
20 direct customer surveys. For the remaining industrial customers, 2009 and 2010 forecast sales
21 are based on 2009 year to date sales and historical usage trends.

Q43.3 Please calculate and provide a fully functional electronic spreadsheet of supporting econometric model(s) that FortisBC uses to forecast the demand of electricity. Please clearly state and explain all assumptions.

A43.3 The 2010 residential customer forecast is determined based on ratio between customer growth and population growth in the BC service territory as provided by BC Stats. As stated in Tab 5 of the Application, customer growth is moving towards a slower 20 year average, from a ten year average, which is directly attributable to declining population growth projections. As such the determination of customer growth in the forecast takes into account the twenty year regression of FortisBC customer counts to population growth.

The 2010 general service customer forecast is determined based on ratio between customer growth and British Columbia GDP growth. The B.C. GDP forecasts are as provided by the Conference Board of Canada in their Summer 2009 Provincial Outlook. The determination of customer growth in the forecast takes into account the twenty year regression of FortisBC customer counts to GDP growth.

1 **44.0 Reference: Exhibit B-1, Application, Tab 5, 2010 Load and Customer Forecast, Section**
2 **5.2.4, Wholesale Class, p. 9**

3 **Q44.1 Please discuss any similarities between the situation of electricity purchased by**
4 **FortisBC under the PPA not being allowed to be sold to a FortisBC customer to replace**
5 **electricity to be sold by that customer and the situation of Tolko, for instance, using**
6 **electricity purchased from FortisBC to displace fuel to be used at another facility to**
7 **generate and sell electricity.**

8 A44.1 While this may seem a similar situation to the City of Nelson situation recently considered by the
9 Commission, fuel is not electricity and no electricity is proposed to be exported from FortisBC's
10 service area as a result of Tolko transporting its fuel between its facilities. FortisBC does not
11 have any ability to restrict Tolko's decisions with regard to the location of its generation. Tolko
12 is a direct customer of the City of Kelowna, not of FortisBC.

13 **Q44.2 Please provide Tolko's monthly and annual load since 2006, in confidence if necessary.**

14 A44.2 As Tolko is a customer of the City of Kelowna, this information is not available to FortisBC.

45.0 Reference: Exhibit B-1, Application, Tab 5, 2010 Load and Customer Forecast, Section 5.3, System Losses, p. 10

Q45.1 Please provide a detailed analysis demonstrating the calculation of 2007 and 2008 losses.

A45.1 Please refer to the below table for a detailed analysis of 2007 and 2008 losses.

Table 45.1 – FortisBC System Losses for 2010 RR

	Gross System	Actual Monthly	
2007	Load (KWh)	Related Load	
Jan-07	376,674,000	332,694,875	
Feb-07	303,886,000	293,565,214	
Mar-07	291,931,000	264,124,391	
Apr-07	250,380,000	236,156,348	
May-07	248,238,000	222,625,636	
Jun-07	236,947,000	222,991,018	
Jul-07	285,215,000	241,056,986	
Aug-07	258,143,775	229,540,144	
Sep-07	231,130,300	220,414,678	
Oct-07	264,213,000	240,855,981	
Nov-07	306,079,000	278,049,885	
Dec-07	356,351,000	320,627,240	
	3,409,188,075	3,102,702,395	2007 Annual Loss 8.99%
	Gross System	Actual Monthly	
2008	Load (KWh)	Related Load	
Jan-08	372,708,000	330,613,802	
Feb-08	311,423,000	295,713,659	
Mar-08	292,409,000	265,908,269	
Apr-08	259,671,000	236,949,640	
May-08	238,128,000	224,406,021	
Jun-08	233,327,000	222,299,717	
Jul-08	272,764,000	232,960,767	
Aug-08	255,598,000	229,033,588	
Sep-08	225,466,000	213,947,196	
Oct-08	260,622,000	240,416,762	
Nov-08	288,322,000	275,950,446	
Dec-08	388,945,000	335,580,462	
	3,399,383,000	3,103,780,328	2008 Annual Loss 8.70%

46.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.4, Temperature Normalization, p. 10

Q46.1 Please calculate and graph the gross normalized demand for 2009 and 2010 under a base case scenario and a high case scenario. The base case refers to expected gross demand for an average temperature year (based on the previous 10 year observed average), and the high case refers to expected gross demand for a cold temperature year. The cold design temperature condition should be based on a statistical likelihood of occurrence of 1-in-10 on an annual basis over a recent historical occurrence period of 10 years.

A46.1 The residential and wholesale classes are the only two classes that present a strong correlation between usage and weather. Therefore, the high case scenario will have different sales expectations for those two classes only. The base case scenario is that used in the preliminary 2010 Revenue Requirements Application. This case incorporates annual growth rates and average use per customer for the residential class based on average temperatures.

Table BCUC 46.1 (a)

BASE CASE SCENARIO							
Preliminary 2010 RR Application	Residential	General Service	Wholesale	Industrial	Other	Net Load	Gross Load
2009 sales forecast (GWh)	1,219	664	903	231	65	3,083	3,387
2010 sales forecast (GWh)	1,228	671	919	291	65	3,174	3,482

Table BCUC 46.1 (b)

Year	HDD	Variation from Average
1999	3,219	- 64
2000	3,514	231
2001	3,252	- 31
2002	3,280	- 3
2003	3,123	- 160
2004	3,143	- 140
2005	3,292	9
2006	3,161	- 122
2007	3,263	- 20
2008	3,584	301
1999 to 2008 Average	3,283	

Table BCUC 46.1(b) above shows that 2008 has the highest Heating Degree Day (HDD) variance, and therefore the coldest temperature variances from the 1999 to 2008 normal HDD. December 2008 HDDs were considerably higher than normal. The following analysis considers

the cold December 2008 temperature a 1-in-10 likelihood of occurrence.

Table BCUC 46.1 (c) - Wholesale Analysis

2008 Wholesale normalized sales (GWh)	903
December 2008 single month normalization factor removed (GWh)	7
Equals: Revised 2008 sales (GWh)	910
2008 forecast as approved in 2009 RR (GWh)	904
2009 forecast as approved in 2009 RR (GWh)	904
2009 forecast increase over 2008	0.02%
Revised 2009 with new 2008 sales and forecast increase (910 GWh x 0.02%)	910
2010 forecast load increase - from preliminary filing	1.7%
Revised 2010 with new 2009 sales and forecast increase (910 GWh x 1.7%)	926

December 2008 was the coldest during the period 1999 to 2008. The analysis in Table BCUC 46.1 (d) incorporates the December 2008 actual use per customer rather than the normalized UPC for this period for determining revised 2009 and 2010 residential sales forecasts.

Table BCUC 46.1 (d) - Residential Analysis

	Residential UPC (MWh/customer)		
	<u>Actual UPC</u>	<u>Normalized UPC</u>	<u>UPC with 2008 as actual</u>
1999	12.33	12.57	12.57
2000	12.73	12.56	12.56
2001	12.65	12.84	12.84
2002	12.63	12.75	12.75
2003	12.47	12.51	12.51
2004	12.23	12.28	12.28
2005	12.49	12.59	12.59
2006	12.42	12.55	12.55
2007	12.75	12.70	12.70
2008	13.14	12.96	13.14
	Updated 2009 UPC Forecast (see below)		12.90

SUMMARY OUTPUT

Residential UPC

1999 to 2009

<i>Regression Statistics</i>	
Multiple R	0.422043
R Square	0.17812
Adjusted R Square	0.0868
Standard Error	0.220978
Observations	11

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.095246	0.095246	1.950509	0.196014
Residual	9	0.439483	0.048831		
Total	10	0.534729			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-46.2966	42.22327	-1.09647	0.301343	-141.812	49.21908	141.81225	49.21908
X Variable 1	0.029426	0.021069	1.396606	0.196014	-0.01824	0.077088	0.0182367	0.077088

1

2009 Residential UPC and Sales Forecast Calculations

Residential Normalized 2009 Forecast	
<u>As per Preliminary 2010 RR Application</u>	
January actual (GWh)	136.7
February actual	131.2
March actual	122.8
April actual	97.4
May actual	90.8
June actual	87.0
July actual	85.4
August forecast	80.9
September forecast	66.6
October forecast	91.1
November forecast	101.4
December forecast	128.0
Annual 2009 forecast	1,219.3
Dec 2009 forecast UPC	1.3264
Dec 2008 actual UPC	1.5508
Variance (increase)	0.2244
December preliminary forecast (GWh)	128.0
Updated December forecast with December 2008 actual UPC	149.7
Updated 2009 forecast (GWh)	1,241.0

2010 Residential UPC and Sales Forecast Calculations

2009 as filed Residential UPC forecast	12.68
December 2008 actual UPC less As filed December 2009 UPC (1.5508- 1.32641)	0.22
Equals revised 2009 Residential UPC	12.90
Plus: MWh/Customer trend	0.029
Equals: 2010 residential UPC forecast	12.93
Times: 2010 average annual customer forecast	97,565
Equals: 2010 residential load forecast (GWh)	1,262
2010 residential forecast Less DSM (GWh)	1,252

The high case incorporates the changes to December 2008 to 2010 forecast sales for the residential and wholesale classes as per the analysis above. In total for 2009 this high case scenario increased 2009 forecast gross sales by 31 GWh and 2010 forecast gross sales by 34 GWh.

Table BCUC 46.1 (e) – High Case Scenario

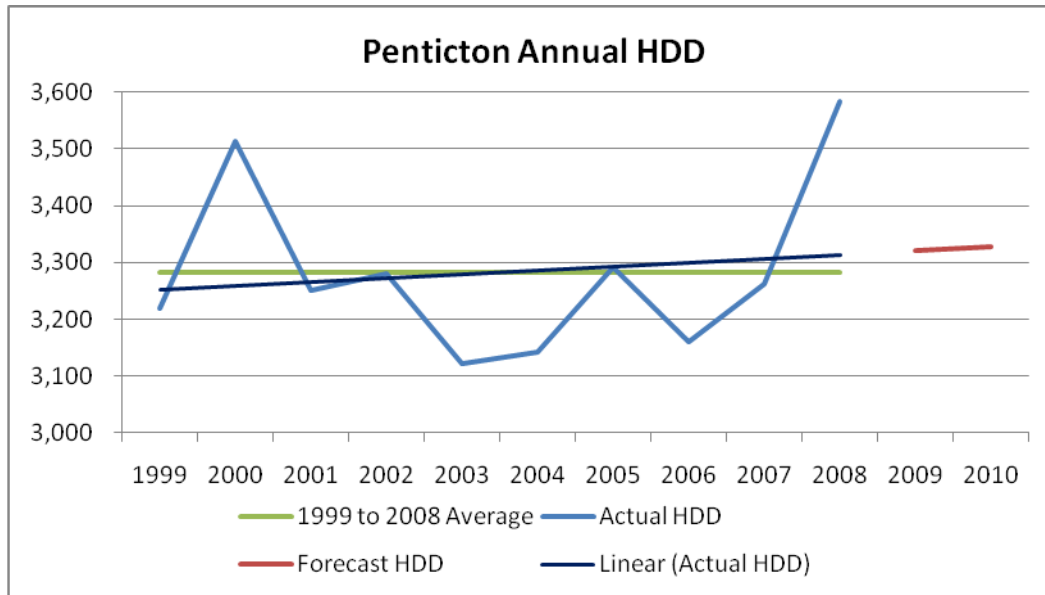
HIGH CASE SCENARIO	Residential	General Service	Wholesale	Industrial	Other	Net Load	Gross Load
2009 sales forecast (GWh)	1,241	664	910	231	65	3,111	3,419
2010 sales forecast (GWh)	1,252	671	926	291	65	3,205	3,516

Q46.2 The Application states that variation in short-term electrical use for Residential and Wholesale customer groups depends mainly on prevailing weather conditions. Please identify and explain the specific input weather data used by FortisBC to forecast electricity demand for 2010.

A46.2 Tab 5 of the Application states that electrical use for the residential and wholesale classes is influenced by weather, but not dependent on weather conditions. Historical sales for the residential and wholesale classes have been weather normalized to remove the effects of variations between weather norms and actual weather. The 2010 sales forecast does not directly incorporate weather data. The 2010 residential class utilizes a normalized average use per customer in the trend. The 2010 wholesale forecast is based directly on customer surveys.

Q46.3 Please provide a linear graph and tabular data that include a simple linear trend of the HDD for the periods 1999 to 2008 and forecasted for 2009 to 2010.

A46.3



YEAR	Annual HDD	
1999	3,219	Actual
2000	3,514	Actual
2001	3,252	Actual
2002	3,280	Actual
2003	3,123	Actual
2004	3,143	Actual
2005	3,292	Actual
2006	3,161	Actual
2007	3,263	Actual
2008	3,584	Actual
2009	3,320	Forecast
2010	3,327	Forecast
10 Year HDD Average (1999 to 2008)	3,283	

Q46.4 For the above question, please submit the linear graph and supporting data in a fully functioning electronic spreadsheet.

A46.4 The electronic spreadsheet is attached.

47.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.5, Peak Demand, pp. 10-11

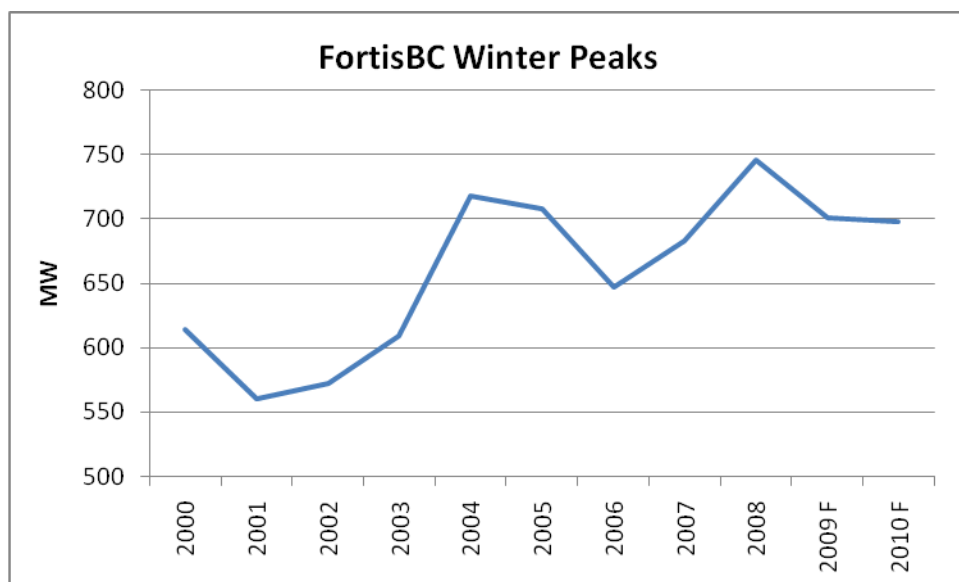
Q47.1 Please provide a table and line graph that summarizes the actual or forecasted winter peak loads for the period 2000 to 2010F.

A47.1 The following table and line graph summarizes the actual and forecast winter peaks for the period 2000 to 2010F.

Table BCUC 47.1 – FortisBC Actual and Forecast Winter Peaks

Year	MW
2000	614
2001	570
2002	577
2003	610
2004	718
2005	708
2006	718
2007	683
2008	746
2009 Forecast	701
2010 Forecast	697

Fig. BCUC 47.1 – FortisBC Actual and Forecast Winter Peaks



Q47.2 What past occurrences of outages have resulted from capacity constraints? Please discuss what measures have been taken to mitigate similar outages from occurring in the future.

A47.2 No significant outages have directly resulted from capacity constraints during recent system peaks, however, record cold temperatures this past winter combined with delays in the completion of several distribution substation projects, resulted in capacity limits being reached in a number of areas. As a result, the Commission issued a "curtailment order" to FortisBC which reinforced the Company's authority to curtail load in local areas in order to protect the greater system. As well, maximum loadings were observed on some transmission elements in the South Okanagan system as previously predicted in the OTR Project application.

These deficiencies will be substantially addressed by the completion of the Arawana, Ellison and Benvoulin substations in 2009/10 and the completion of the OTR Project in 2011.

Q47.3 What is FortisBC's peak system capacity for 2010? Please discuss the probability that customer interruptions would occur as a result of capacity constraints.

A47.3 It is not possible to define a specific value for the FortisBC peak system capacity, however, following the completion of the OTR Project in 2011, the N-0 (all elements in service) capacity of the FortisBC bulk transmission system is currently expected to be able to meet the forecast load out to the planning horizon (approximately 2028). While this does not eliminate the possibility of outages, the probability of their occurrence due to capacity constraints during normal operations will be significantly lowered. Contingency-related capacity deficits will occur prior to the end of the planning horizon and will be addressed through future Capital Expenditure Plan applications.

1 **48.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.6,**
2 **Forecast and Actual Electric Sales Revenue, p. 11**

3 **Q48.1 For the period 2007 to 2010F, please provide tabular data of FortisBC's margin (\$ million)**
4 **and unitized margin (\$ million/GW) for Residential, General Service, Wholesale, and**
5 **Industrial user groups. Please include an electronic version in a fully functioning**
6 **spreadsheet.**

7 A48.1 The Company is only able to provide the requested information for 2009 as the value of
8 Production Expenses is allocated to individual customer classes only during a Cost of Service
9 Analysis ("COSA"). A COSA has recently been completed based on 2008 data and is being
10 filed on October 30, 2009. The following table provides revenue, cost of supply (referred to in
11 the COSA as production expenses) and unit sales data as well as margin data as determined by
12 the COSA estimates for the 2009 year. Please refer to the attached file for more detail.

Table 48.1 Sales Revenue & Expenses by Customer Class (\$ 000's)*

		Forecast
		2009
Residential	Revenue	110,938
	Production Expenses	43,432
	Margin	67,505
	GWH Sales	1,221
	Unitized Margin (\$/GWh)**	55,287
General Service	Revenue	47,052
	Production Expenses	23,828
	Margin	23,223
	GWH Sales	678
	Unitized Margin (\$/GWh)	34,253
Industrial	Revenue	15,532
	Production Expenses	7,709
	Margin	7,823
	GWH Sales	224
	Unitized Margin (\$/GWh)	34,926
Wholesale	Revenue	55,898
	Production Expenses	31,243
	Margin	24,654
	GWH Sales	921
	Unitized Margin (\$/GWh)	26,770
Lighting and Irrigation	Revenue	6,005
	Production Expenses	2,101
	Margin	3,904
	GWH Sales	62
	Unitized Margin (\$/GWh)	62,967

*2009 data is drawn from the COSA in order to have expense data that relates directly to the Revenue and unit sales presented. Thus, the 2009 data in the table varies from the information contained in the Application. A full explanation of the derivation of the Revenue Requirement used in the COSA is available in the EES COSA report at page 7.

** Unitized Margin is simple dollars/GWh, not expressed in millions of dollars.

49.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.6, Forecast and Actual Electric Sales Revenue, p. 11

Q49.1 Changes in the number of customers or use rates have an impact on Revenue

Requirements. For the period 2007 to 2010 please provide a table in the format below which shows the impact on Revenue Requirements from changes in the number of customers and user rates.

Decrease in Revenue Requirements (\$ millions)

Factors	2008 vs 2007	2009P vs 2008	2010F vs 2009P	Ref line
Change in the number of Residential customers				1
Change in the number of General Service customers				2
Change in the number of Industrial customers				3
Change in the number of Wholesale customers				4
Change in use rates for Residential customers				5
Change in use rates for General Service customers				6
Change in use rates for Industrial customers				7
Change in use rates for Wholesale customers				8
Total:				9

A49.1 The following table details how changes in the number of customers or their usage has on revenue at prior year rates in FortisBC's Revenue Requirements:

Factors	2008 vs 2007	2009P vs 2008	2010F vs 2009P	Notes
Change in the number of Residential customers	1,855	1,364	1,398	
Change in the number of General Service customers	206	128	323	
Change in the number of Industrial customers	-2	-2	0	
Change in the number of Wholesale customers	0	0	0	
Change in use rates for Residential customers	0.25	(0.28)	0.01	Normalized MWh/Customer
Change in use rates for General Service customers	0.84	(1.30)	0.21	Actual MWh/Customer
Change in use rates for Industrial customers	(3,018)	323	1,748	Actual sales/Customer
Change in use rates for Wholesale customers	2,779	1722	2,214	Normalized MWh/Customer

50.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.6, Forecast and Actual Electric Sales Revenues, Table 5.6, p. 11

Reported sales in 2008 have increased 5.3% (from \$0.210m to \$0.221m), forecast sales in 2009 will increase 6.5% (from \$0.221m to \$0.235m) and another 2.0% in 2010 (to \$0.240m).

Q50.1 What portion of this sales increase in 2010 relate to the 4.6% general rate increase (effective January 1, 2009)? What portion relates to the 2.2% general rate increase flow-through of BC Hydro rate changes (effective September 1, 2009)?

A50.1 The portion of the sales increase in 2010 which is related to the 4.6% general rate increase is \$10.2 million.

The portion of the sales increase in 2010 which is related to the 2.2% general rate increase flow-through of BC Hydro rate changes is \$1.7 million.

Q50.2 Please confirm that FortisBC has not factored in the proposed 4.6% revenue deficiency rate increase for the 2010 forecast sales in Table 5.6?

A50.2 Confirmed.

Q50.3 Please include a column in Table 5.6 which calculates the revenue by customer class including the proposed 4.6% rate increase.

A50.3 Please refer to the following table:

	Actual 2007	Actual 2008	Forecast 2009	Forecast 2010*	2010 with 4.6% Increase
			(\$000s)		
Residential	93,100	102,600	108,803	108,012	112,968
General Service	50,100	53,820	56,230	57,814	60,467
Industrial	19,170	14,470	15,773	19,927	20,841
Wholesale	43,381	45,614	49,583	49,212	51,471
Lighting and Irrigation	3,900	4,405	4,824	4,908	5,133
Total	209,651	220,909	235,213	239,873	250,879

*Forecast at 2009 Re-approved rates.

Q50.4 What portion of the 2010 sales revenue forecast (\$239m in Table 5.6) is related to customer growth?

A50.4 Approximately \$5.1 million of the \$239 million is related to load growth.

51.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.1, Economic and Demographic Outlook, p.4; and Appendix 5A, p. 12

Q51.1 Has FortisBC signed any service contracts (Power Supply Agreement) with Zellstoff Celgar confirming the 55 GWh purchases in 2010? If so, please file a copy to the Commission.

A51.1 The Company has not signed any service agreements with Zellstoff Celgar confirming the 55 GWh purchases in 2010.

Q51.2 What percentage of industrial sales are related to Zellstoff Celgar?

A51.2

Table BCUC 51.2 – FortisBC Forecast Sales to Zellstoff Celgar

Forecast Year	Total forecast Industrial Sales (GWh)	Sales to Zellstoff Celgar (GWh)	Percentage
2009	231.1	16.5	7.14%
2010	290.5	55.0	18.9%

Q51.3 Have there been any related capital expenditures in 2009 or anticipated in 2010 (transmission, distribution, service connection, meter installations) required to enable FortisBC to service Zellstoff Celgar? Was there a requirement for a Contribution in Aid of Construction for the customer?

A51.3 The Company has presented estimates to Zellstoff Celgar for work to enable its generation upgrade to connect to the Company's transmission system on a long term basis. All such work will be paid by Zellstoff Celgar.

At this time, the Company has no agreement from Zellstoff Celgar to enter into this work. This is partly due to the fact that the generation upgrade can connect to the system on a temporary basis without the necessary long-term upgrades in place. Therefore, the Company and Zellstoff Celgar are pursuing a solution to allow a mutually preferable but more expensive alternative to be implemented rather than the least-cost solution.

Q51.4 Please identify the source of power supply required to meet the Zellstoff Celgar demand.

A51.4 The Company does not assign individual resources to meet individual loads. However, most of the 2010 incremental energy will come from the BC Hydro Power Purchase Agreement.

Project No. 3698570: Application for 2010 Revenue Requirement

Requestor Name: British Columbia Utilities Commission

Information Request No: 1

Request Date: October 16, 2009

Response Date: October 30, 2009

1 **Q51.5 Will there be any related wheeling revenues obtained from the sale of power from**
2 **Zellstoff Celgar to BC Hydro?**

3 A51.5 It is not yet determined how the power will be transferred to BC Hydro so potential wheeling
4 revenue is unknown at this time.

52.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Appendix 5A, Actual and Normalized Forecast Energy Sales, pp. 12-13

Q52.1 Please expand and provide a revised table for Actual and Normalized Forecast Energy by Customer Class Including DSM which includes historical data from 2000 to 2006.

A52.1 Please refer to the following tables:

Table BCUC 52.1 – Actual Historic Energy Sales

Actual Energy Sales by Customer Class							
Energy Sales (GWh)	2000	2001	2002	2003	2004	2005	2006
Residential	978	986	997	1,013	1,016	1,070	1,091
General Service	498	514	517	520	539	568	598
Wholesale	873	881	878	907	919	916	948
Industrial	279	323	347	337	348	357	344
Lighting	12	10	10	10	10	12	16
Irrigation	43	43	54	52	42	44	42
Net Load	2,682	2,731	2,790	2,835	2,873	2,969	3,040
Gross Load	2,993	3,026	3,126	3,182	3,228	3,346	3,405
Gross Loss %	10.4%	9.8%	10.7%	10.9%	11.0%	11.3%	10.7%
System Peak							
Winter Peak (MW)	614	570	577	610	718	708	718
Summer Peak (MW)	464	497	515	526	511	512	554

Table BCUC 52.1 – Normalized Historic Energy Sales

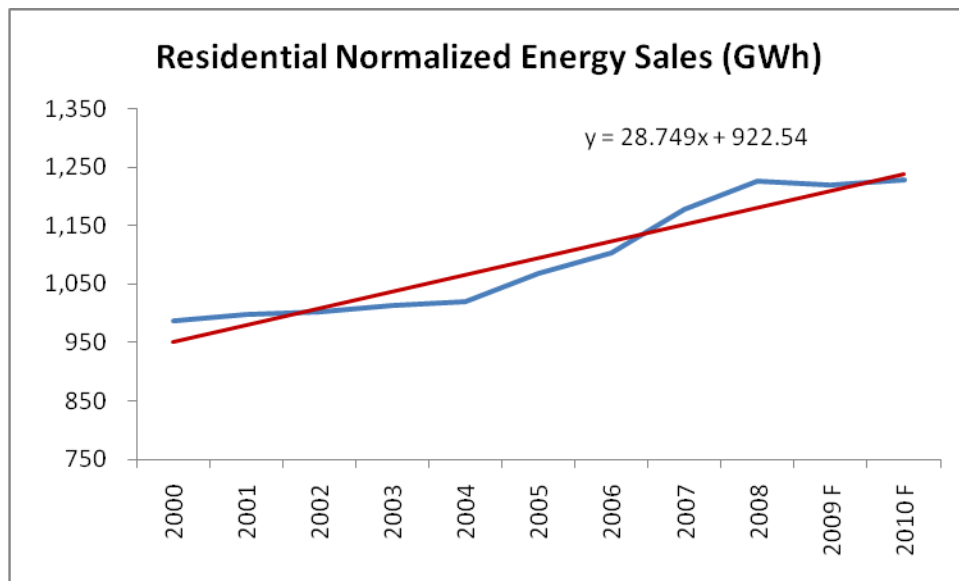
Normalized Energy Sales by Customer Class							
Energy Sales (GWh)	2000	2001	2002	2003	2004	2005	2006
Residential	987	999	1,003	1,013	1,021	1,069	1,103
General Service	498	514	517	520	539	568	598
Wholesale	872	884	873	898	917	916	953
Industrial	279	323	347	337	348	357	344
Lighting	12	10	10	10	10	12	16
Irrigation	43	43	54	52	42	44	42
Net Load	2,691	2,773	2,805	2,830	2,877	2,966	3,055
Gross Load	2,914	3,094	3,169	3,176	3,233	3,343	3,419
Gross Loss %	7.6%	10.4%	11.5%	10.9%	11.0%	11.3%	10.6%
System Peak							
Winter Peak (MW)	650	698	647	615	700	682	667
Summer Peak (MW)	472	491	487	478	475	513	512

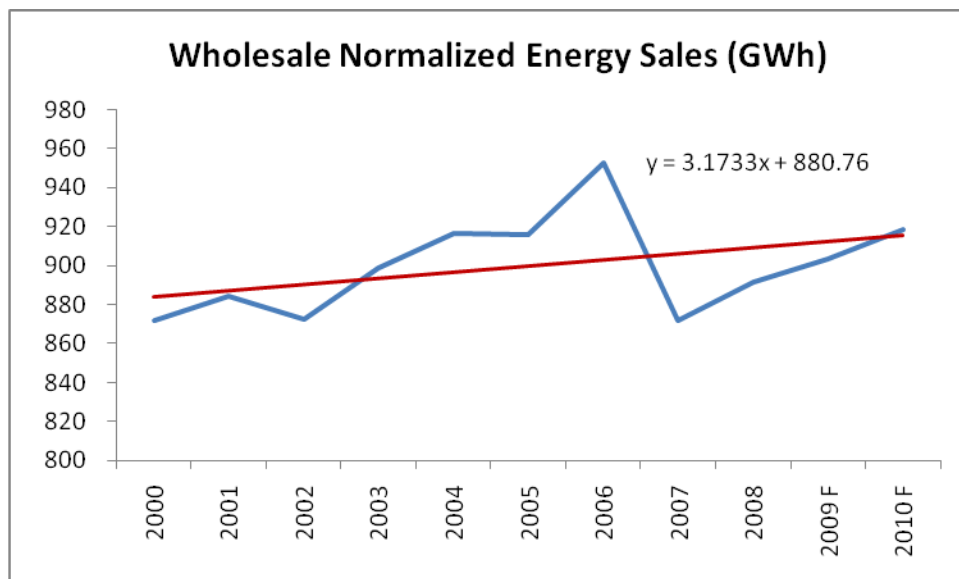
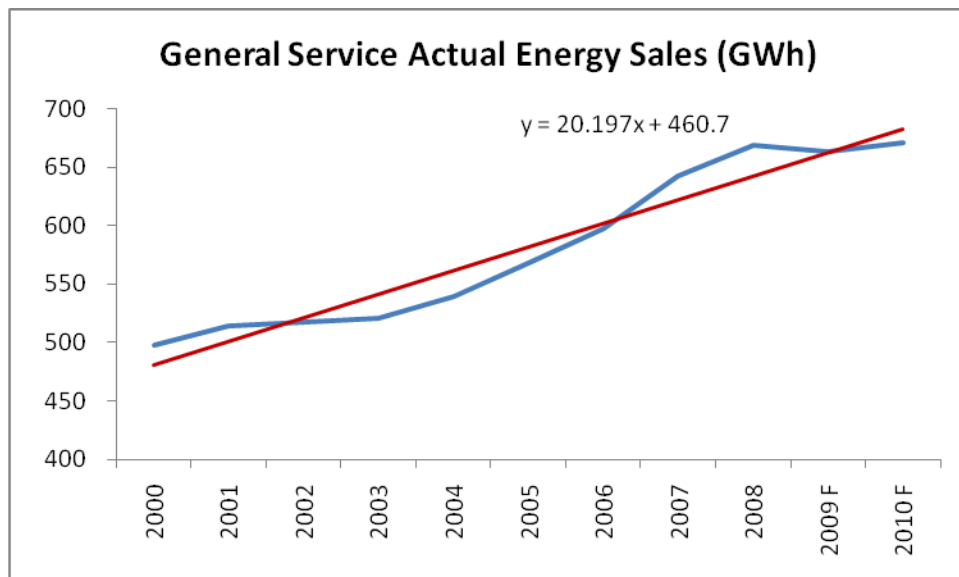
Q52.2 Please provide separate linear graphs for normalized energy sales (including DSM) for Residential, General Service, Wholesale, Industrial, Other, and System Losses for the period 2000 to 2008. For each graph, please also include forecasted 2009 and 2010 normalized energy sales.

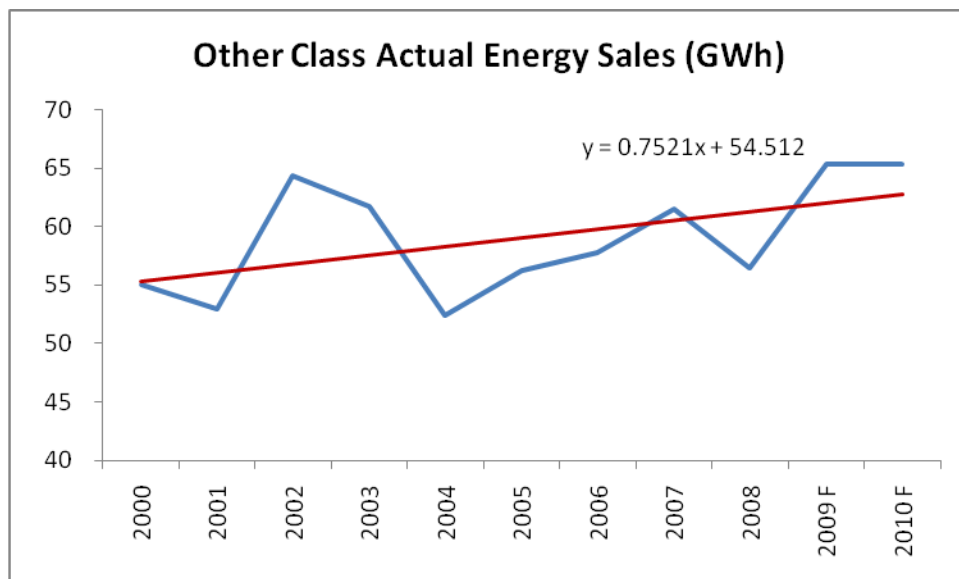
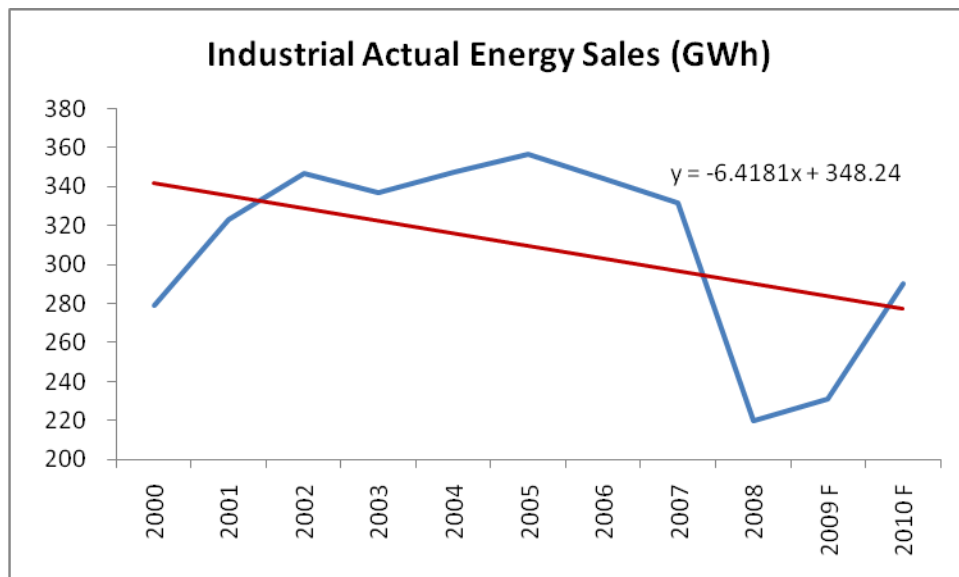
For each graph in the above question please:

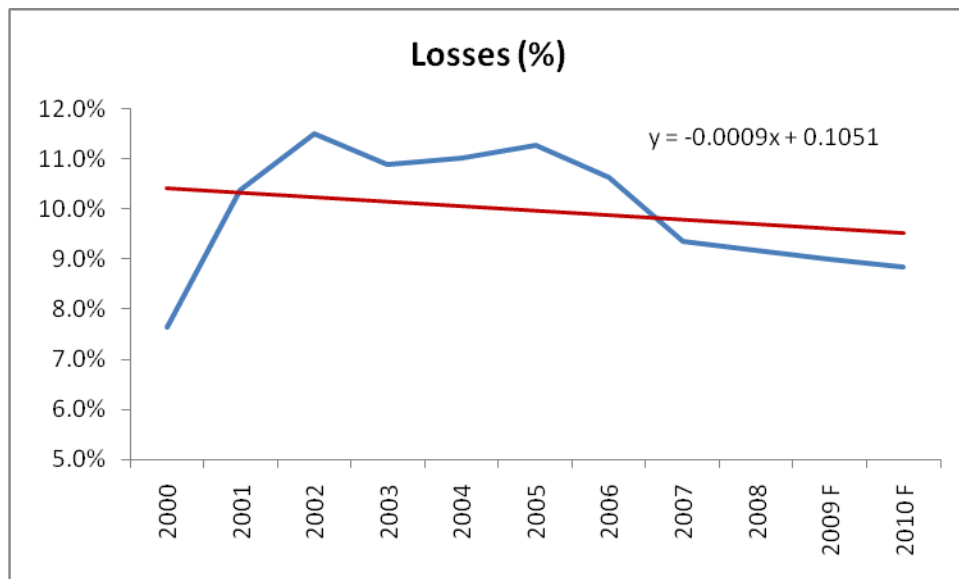
- **Include general trend lines and linear equations.**
- **Provide tabular data and graphical representations in fully functioning electronic spreadsheets.**
- **Discuss the underlying factors affecting the historical and forecasted trends.**

A52.2 The electronic spreadsheets are attached.









53.0 Reference: Exhibit B-1, Application, Tab 5, Load and Customer Forecast, Section 5.0, p. 3; and Appendix 5A p. 13, 2010 Forecast

“The total number of customer accounts in 2010 is projected to be 112,911 or a 1.5 percent increase over the current 2009 forecast. The current 2009 forecast increase of 1.3 percent over 2008 is lower than the prior five year average annual growth of 2.3 percent. Customer growth is moving towards the 20 year average of 1.4 percent, which is directly attributable to declining population growth projections.”

Q53.1 Please provide a revised table for Actual and Forecast Year End Customer Count (Appendix 5A, p 13) which includes historical data for the years 2000 to 2006.

A53.1

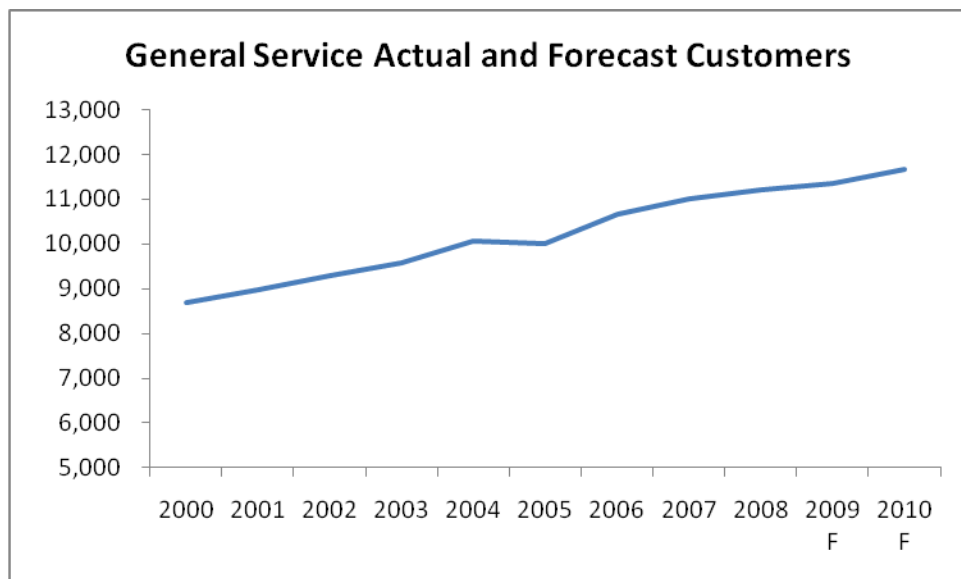
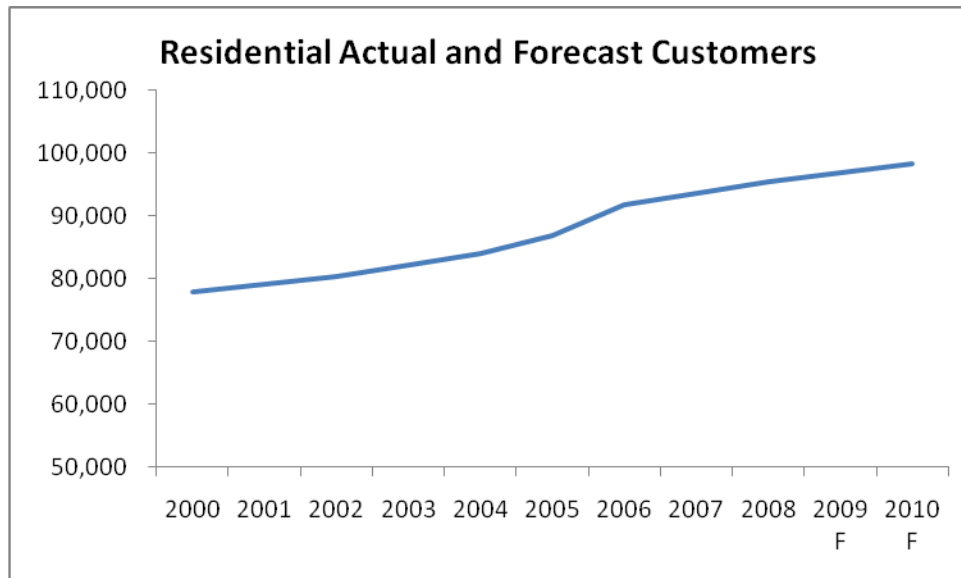
Table BCUC 53.1

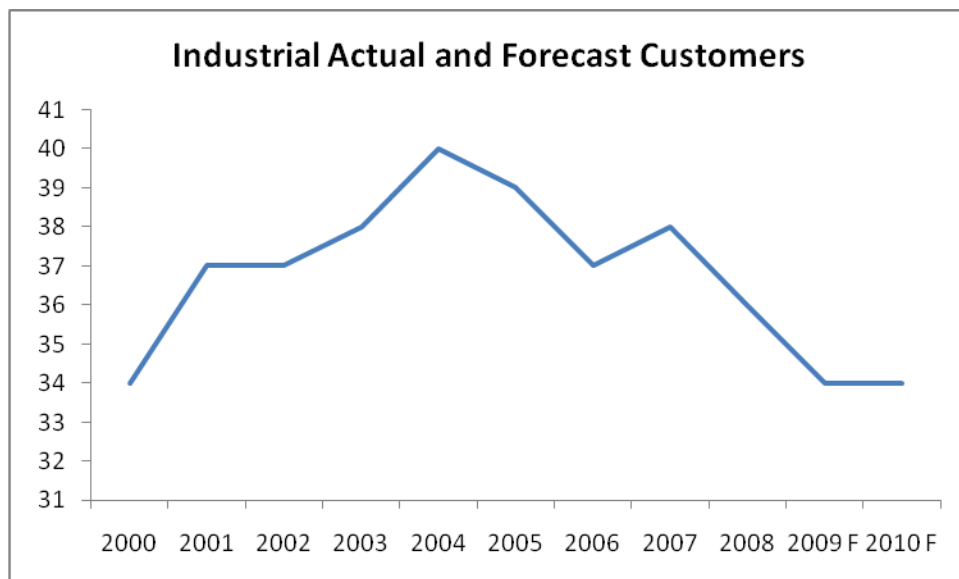
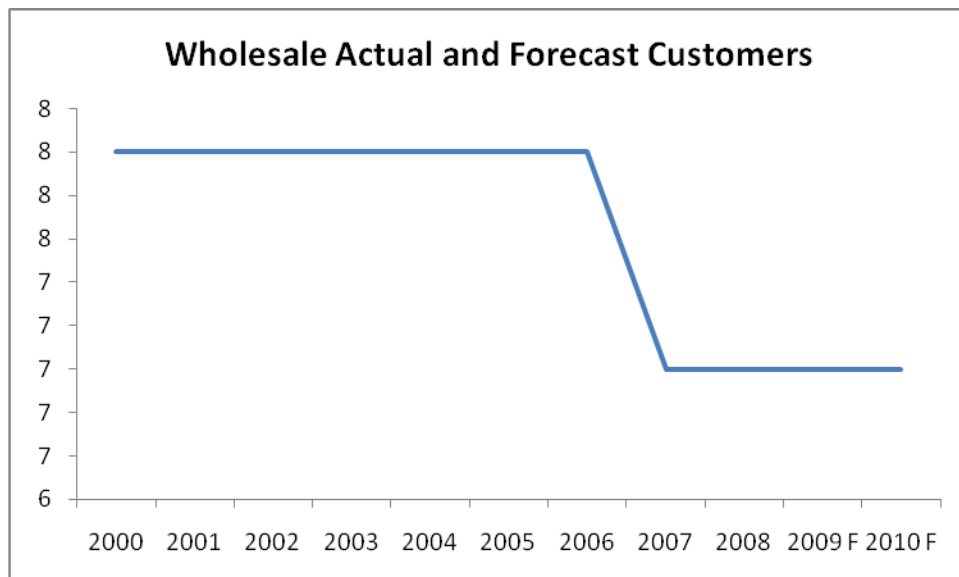
Actual and Forecast Year End Customer Count											
	Actual									Forecast	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Residential	78,008	79,121	80,421	82,174	84,008	86,870	91,874	93,647	95,502	96,866	98,264
General Service	8,700	8,974	9,302	9,585	10,051	10,012	10,673	11,010	11,216	11,344	11,667
Wholesale	8	8	8	8	8	8	8	7	7	7	7
Industrial	34	37	37	38	40	39	37	38	36	34	34
Other	933	932	1,099	1,100	1,100	2,816	3,313	3,022	2,958	2,939	2,939
Total	87,683	89,072	90,867	92,905	95,207	99,745	105,905	107,724	109,719	111,190	112,911
Customer Account Growth	970	1,389	1,795	2,038	2,302	4,538	2,667	1,819	1,995	1,471	1,721
Percent Annual Change by Customer Class											
	Actual									Forecast	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Residential	1.2%	1.4%	1.6%	2.2%	2.2%	3.4%	2.7%	1.9%	2.0%	1.4%	1.4%
General Service	2.2%	3.1%	3.7%	3.0%	4.9%	-0.4%	2.7%	3.2%	1.9%	1.1%	2.8%
Wholesale	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Industrial	-2.9%	8.8%	0.0%	2.7%	5.3%	-2.5%	-5.1%	0.0%	-5.3%	-5.6%	0.0%
Other	0.0%	-0.1%	17.9%	0.1%	0.0%	-10.0%	2.6%	-8.8%	-2.1%	-0.6%	0.0%
Total	1.1%	1.6%	2.0%	2.2%	2.5%	2.6%	6.2%	1.7%	1.9%	1.3%	1.5%

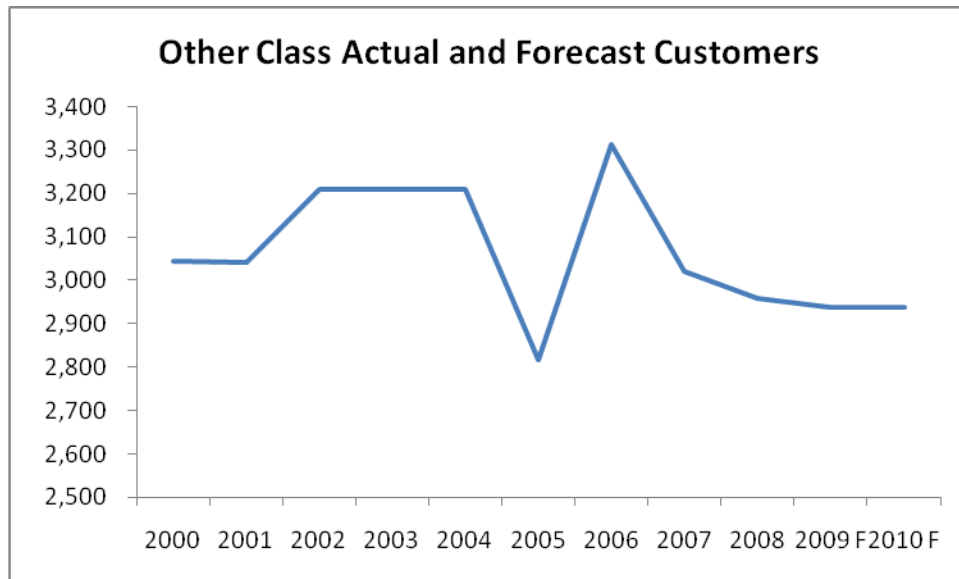
Note: 2006 annual percent change has been adjusted for the transition of Princeton Light and Power

Company transition of indirect to direct customer classes.

- 1 **Q53.2 Please provide separate linear graphs of actual year-end customer counts for**
2 **Residential, General Service, Wholesale, Industrial and Other for the period 2000 to 2008.**
3 **For each graph, please also include forecasted 2009 and 2010 year-end customer counts.**
4 **A53.2**







Note: Other class customers for the years 2000 to 2004 have been adjusted for accounting changes that occurred in 2005.

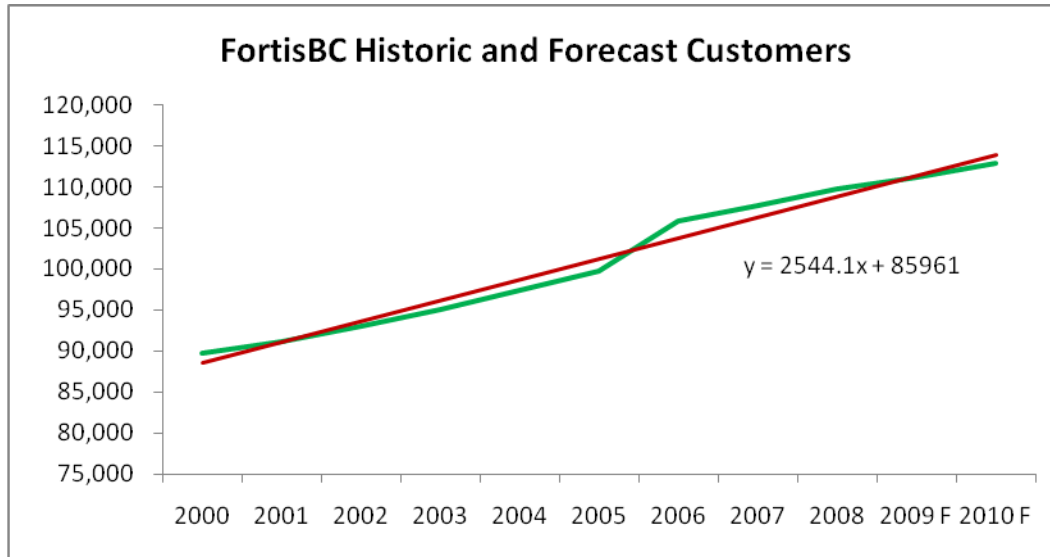
Q53.3 Please provide a linear graph that summarizes the cumulative actual year-end customer count for all user groups over the period 2000 to 2010(F).

For the above questions please:

- Include general trend lines and linear equations for each graph.
- Provide tabular data and graphical representations in fully functioning electronic spreadsheets.
- Discuss the underlying factors affecting the historical and forecasted trends in each graph.

A53.3 Please see the graphs following. The electronic spreadsheets are attached.

Graph BCUC 53.3



Note: Includes customer count adjustments for the other category for the years 2000 to 2004 as outlined in the response to BCUC 53.2 above.

Table BCUC 53.3 - Actual and Historical Customer Count Trends

Customer Class	Trend
Residential	Customer growth for the residential sector was strong, particularly during the period of 2002 to 2006. While slowed somewhat from 2007 forward and into the forecast period of 2009 and 2010, growth is continuing due to continued population growth in the FortisBC service territory.
General Service	The growth in general service customers is closely tied to economic conditions and population growth. This class experienced strong growth during the high residential growth period of 2000 to 2006. Growth slowed in 2008 and 2009 due to weak economic conditions. GDP forecasts outline improving economic conditions for the forecast period of 2009 and 2010, and FortisBC is anticipating improved growth in general service customers.
Wholesale	The decrease by one customer count for the wholesale class occurred effective January 1, 2007 from the incorporation of Princeton Light and Power Company customers into FortisBC direct customer counts. Other than this change the number of wholesale customers has not changed.

Industrial	All but one of the decreases in industrial customer counts over the period 2000 to 2009 was due to decreases in energy requirements and transition to general service rates. While sales to many industrial companies has dropped, the actual number of customers has changed very little. For the forecast periods of 2009 to 2010 there are no expectations for changes to industrial customer counts.
Other	Total customers in the irrigation and street light category have fluctuated, but have changed very little historically during the period 2000 to 2008. The number of customers is not anticipated to change for the forecast period of 2009 and 2010.

Q53.4 Please provide historical and forecasted demographic data that show the direction and momentum of population changes in the territory served by FortisBC. Please reference and provide copies of all referenced materials.

A53.4 Table BCUC 53.4 below outlines actual population in the FortisBC service territory from 1999 to 2008 and forecast population for 2009 to 2014 as provided by the BC Statistics P.E.O.P.L.E. report dated August 2009, which is attached as Appendix BCUC 39.3. This table exhibits slowing expectations of population growth from 2009 beyond from higher growth years leading up to 2009.

Table BCUC 53.4 – Actual and Forecast FortisBC Population

Year	Population	Population change (%)
1999	246,925	0.0%
2000	246,730	-0.1%
2001	246,821	0.0%
2002	247,413	0.2%
2003	248,668	0.5%
2004	248,409	-0.1%
2005	251,709	1.3%
2006	255,664	1.6%
2007	262,888	2.8%
2008	269,330	2.5%
2009 F	272,380	1.1%
2010 F	275,125	1.0%
2011 F	277,862	1.0%
2012 F	280,687	1.0%
2013 F	283,482	1.0%
2014 F	286,324	1.0%

54.0 Reference: Exhibit B-1, Application, Tab 6, Purchase Power and Wheeling, Section 6.0, Introduction, p. 2

“The increase (in Power Purchase Expense) is primarily due to an increase in forecast load, greater use of the BC Hydro Power Purchase Agreement, and BC Hydro and Brilliant Plant rate increases partially offset by reduced market requirements.” (Tab 6, p.2)

Q54.1 What portion of the \$7.2m increase in power purchase expense relates to an increase in forecast load?

A54.1 The total increase is \$7.0 million rather than \$7.2 million. Of this amount approximately \$1.6 million relates to an increase in forecast load.

Q54.2 Please identify the portion of forecast load increase that is the result of the increase in the number of customers and also identify the portion of load increase that is the result of increased demand from existing customers?

A54.2 Table BCUC 54.2 (a) below outlines the 2010 forecast load change that is the result of forecast increases in the number of customers. There are forecast increases in residential and general service customers only for 2010. The calculation of the load change from customer growth is the change in customers multiplied by the forecast average use per customer for the residential and general service classes.

Table BCUC 54.2 (a)

Forecast 2010 load increases due to customer growth (from 2009 Forecast)			
	Customer change	Forecast UPC	Load Change from Customer Growth (GWh)
Residential	1398	12.68	18
General Service	323	58.82	19
Industrial	0		0
Wholesale	0		0
Other	0		0
Total	1721		37

Table BCUC 54.2 (b) outlines total 2010 load changes per class and load changes due to changes in demand from existing customers.

Table BCUC 54.2 (b)

	2010 Total Load change	Forecast 2010 load due to increased demand from existing customers
Residential	9	(9)
General Service	8	(11)
Industrial	59	59
Wholesale	15	15
Other	-	-
Total	92	55

“A contract with BC Hydro (200 MW) under BC Hydro Rate Schedule 3808 that terminates September 30, 2013;” (Tab 6, p. 5)

Q54.3 Given that the BC Hydro purchase power agreement is set at 200 MW, please explain how the \$7.2m increase in power purchase expense is a result of the “greater use of the BC Hydro Power Purchase Agreement”?

A54.3 As shown in Table 6.0, forecast 2009 BC Hydro purchases are \$35.4 million compared to \$42.0 million in 2010. This is partly driven by an increase in expected usage of 118 GWh in 2010 over 2009.

Q54.4 Please provide the Commission with an update on the renegotiations with the BC Hydro power purchase agreement.

A54.4 FortisBC and BC Hydro have been negotiating with regard to the renewal of the PPA since October 2005. Recently the parties held a series of meetings with a facilitator, which were unsuccessful in resolving the outstanding issues. The Commission has directed the parties to resume negotiations and suggested a one-year extension to the PPA until September 30, 2014. FortisBC and BC Hydro are to respond to the Commission on this suggestion and to provide a joint report on the negotiations by January 8, 2010.

1 **Q54.5 What are the Company's plans in securing firm commodity purchases if**
2 **negotiations with BC Hydro fail? Can FortisBC source its supply of power through other**
3 **power producers? If so, please discuss how this will impact rate payers in the future.**

4 **A54.5 The PPA represents 27 percent of FortisBC's current energy requirements. PPA pricing**
5 **is based on a blend of the existing heritage assets and new BC Hydro assets, and is**
6 **much less costly than alternative sources of supply from the market or from newer**
7 **resources. The current 3808 PPA does not expire until 2013. Therefore this issue will not**
8 **impact revenue requirements until that time. FortisBC's long term Resource Plan, filed**
9 **on May 29, 2009, identifies a Preferred Resource Strategy to meet FortisBC customer**
10 **load requirements, predicated on a 3808 PPA that is renewed under the same basic terms**
11 **as the existing PPA.**

55.0 Reference: Exhibit B-1, Application, Tab 6, Power Purchase and Wheeling, Section 6.0, Introduction, Table 6.0, p. 2

Q55.1 Please provide a Table in the form of Table 5.0, summarizing the 2008 forecast, approved, and actual values.

A55.1

Total Power Purchase Expense 2008

		Forecast	Approved	Actual
		(\$000s)		
1	Surplus Revenues	(1,110)	(1,705)	(2,180)
2	Brilliant	30,244	30,250	30,195
3	BC Hydro	40,058	37,782	34,140
4	Market Spot Purchase & Capacity Purchases	3,030	2,450	3,389
5	Independent Power Producers	367	367	712
6	Capital Projects	(126)	(123)	(227)
7	Special and Accounting Adjustments	0	0	(693)
8	Export Sales Wheeling Adjustment	0	0	0
9	Balancing Pool	(401)	(484)	674
10	TOTAL	72,063	68,537	66,010

Q55.2 Please provide the electricity volumes associated with the Balancing Pool adjustments and the procedures and calculations used to value those volumes.

A55.2 Balancing pool adjustments reflect the value of electricity either borrowed from the future or held back in reserve to meet future load. Annual values reflect the annual cumulative total over the course of the year. This is then valued at the December BC Hydro cost of energy of \$31,138 per GWh. For 2009 this represents about 27 GWh of incremental energy stored for future use and therefore is a credit to 2009 costs. For 2010 this represents about 4 GWh of incremental energy stored for future use and is therefore a credit to 2010 costs.

1 **56.0 Reference: Exhibit B-1, Application, Tab 6, Power Purchase and Wheeling, Section 6.1,**
2 **Review of 2009, pp. 3-4**

3 **“The increased power purchase cost as a result of this project is charged to the capital**
4 **cost of the project and therefore does not impact the power purchase expense”.**

5 **Q56.1 Please explain why the incremental power purchase costs associated with generating**
6 **unit upgrades should be considered a capital cost instead of a power purchase cost.**

7 A56.1 The power purchase costs arising from the unit outages are a direct result of the capital work on
8 the Upgrade and Life Extension (“ULE”) projects, and have been capitalized for all ULE projects
9 to date. Capitalizing these costs as part of the ULE upgrades reduces the power purchase
10 expenses within a given year and results in less volatility in power purchases year over year.
11 The most recent approval of this treatment is found in the CPCN for the Corra Linn Unit 2 ULE
12 project, approved by Commission Order C-5-09

57.0 Reference: Exhibit B-1, Application, Tab 6, Power Purchase and Wheeling, Section 6.1, Review of 2009, Table 6.1, p. 4

Q57.1 Please describe the costs that are included in “Special and Accounting Adjustments” (Line 7 in Table 6.1) and explain the reason for the large variance in 2009.

A57.1 The \$1.009 million 2009 Approved Special and Accounting Adjustment in line 7 of Table 6.1 is the refund received from BC Hydro due to final BC Hydro 2008 rates. The \$0.039 million adjustment for Forecast 2009 is due to items such as the final settlement of the April 2007 Power Purchase Agreement bill with BC Hydro, and an adjustment to true-up power purchase expense to the General Ledger to account for items such as exchange rate variance between the forecast and actual.

- 1 **58.0 Reference: Exhibit B-1, Application, Tab 6, Power Purchase and Wheeling, Section**
2 **6.2.1, Power Purchase/ Resource Uncertainty, pp. 4-5**
- 3 **“The Company has long-term, firm resources from which it can supply over 98 percent of**
4 **the annual energy requirements.”**
5
- 6 **Q58.1 What percentage of the 2007, 2008 and 2009 forecast power purchase cost is associated**
7 **with the less than 2 percent shortfall of long-term, firm resources?**
- 8 A58.1 In 2007 costs associated with this capacity shortfall total \$2.7 million, in 2008 total \$3.0 million
9 and in 2009 total \$3.4 million.

59.0 Reference: Exhibit B-1, Application, Tab 6, Power Purchase and Wheeling, Section 6.2.2, Power Purchase Costs, Table 6.2.2, p. 5

Q59.1 Please describe what, if any, incremental generation entitlements have been realized since the 2005 Canal Plant Agreement was filed with the Commission through the upgrading of generating units.

A59.1 The South Slocan Unit 1 upgrade scheduled for completion February 19, 2010 is expected to add 0.3 MW and 2 GWh a year. The Corra Linn Unit 1 upgrade scheduled to complete December 10, 2010 is expected to add 2 MW and 10.4 GWh. The Corra Linn Unit 2 upgrade scheduled to complete the end of 2011 is expected to add 2 MW and 8.2 GWh. There have been no increases between the 2005 Canal Plant Agreement and the unit upgrades listed here. No other changes to entitlements are expected at this time. The November 2 updated power purchase expense to be filed with the Commission includes these amounts.

60.0 Reference: Exhibit B-1, Application, Tab 6, Power Purchase and Wheeling, Section 6.2.2, Power Purchase Costs; Independent Power Producers, p. 8

“Due to poor market opportunities during the freshet to independently market their surplus, Zellstoff Celgar exports to the Company were significantly higher in 2009 than planned and at a much lower cost than anticipated.”

Q60.1 Please explain why FortisBC was a preferential purchaser of Zellstoff Celgar’s surplus. Was FortisBC paying higher than market prices?

A60.1 Zellstoff Celgar utilizes an independent marketing service to dispose of its surplus. The Company is not able to comment on the instructions between Zellstoff Celgar and its marketer as to when to sell and when not to sell to the market.

The Company pays Zellstoff Celgar the lower of the BC Hydro 3808 energy rate, effective at January 1 of the current year, or the Mid-C Dow Jones day-ahead Index price, using the heavy load index for the heavy load hours and the light load index for the light load hours, less \$2 per MWh.

Q60.2 Please provide a comparison of Mid-C market prices and the price paid to Zellstoff Celgar at the times of purchases of Zellstoff Celgar’s surplus.

A60.2 Please refer to BCUC 60.1.

61.0 Reference: Exhibit B-1, Application, Tab 6, Power Purchase and Wheeling, Section 6.2.2, Power Purchase Costs; Market Purchases Made in Advance, p. 9

“The Company is currently in discussions with Powerex to replace this product on terms similar to the previous year.”

Q61.1 Please describe the terms of the capacity block purchase referred to in the reference and identify the co-party if it is not Powerex. Describe the motivation of Powerex to offer similar terms if Powerex was not the previous co-party.

A61.1 The standard Capacity Block product the Company has obtained from Teck over the past several years is capacity only with the price based on the differential between the Heavy Load Hour and Light Load Hour price plus a premium. FortisBC can not respond on behalf of Powerex with regard to the terms that it may offer.

Q61.2 Please provide a copy of the August 10, 2009 Economic Insight publication titled “Energy Market Report”, and identify which information in that publication was relied upon and why.

A61.2 The Report is attached as Appendix BCUC 61.2. The Company relies upon the information on page 2, OTC Western Forward Electricity Costs in \$/MWh to estimate market costs for 2010. This information is relied upon as it is available at no incremental cost to the Company and continues to be a reliable measure of current market rates.

62.0 Reference: Exhibit B-1, Application, Tab 6, Power Purchase and Wheeling, Section 6.2.2, Power Purchase Costs; Market Purchases Made in Advance, Table 6.2.6, p. 10

“The 25 MW capacity block (December 2008, 2009 and 2010) was purchased from CPC. While it is generally at a higher price than other capacity blocks, it is part of a multi-year contract for December through to 2010. It also adds significant value compared to other block purchases as it includes Light Load Hour capacity and the opportunity for an additional entitlement storage account position.”

Q62.1 The cost per MW for December shown in Line 4 of Table 6.2.6 is higher than the cost per MW for December capacity purchased from CPC. Please provide support for the referenced statement that the CPC capacity “is generally at a higher price than other capacity blocks” and in particular, please justify the lower estimated cost per MW for December capacity shown in Lines 9 and 14 of Table 6.2.6.

A62.1 The price of the CPC capacity block is fixed through December 2010 while the price of the other blocks is not. Therefore, depending on actual prices, the CPC capacity block may be at a higher or lower cost than other blocks. However, on an expected basis, it will almost certainly be at a higher rate.

Q62.2 Please explain in greater detail how the Light Load Hour capacity associated with CPC capacity adds significant value and explain why Light Load Hour capacity is not included in “other block purchases”.

A62.2 If a cold snap occurs on a Sunday, the Company has no advance capacity blocks to cover it as all day Sunday is considered a Light Load Hour day. However, loads will still be significantly above the Company’s base resources. While the Company does not anticipate any problems obtaining day ahead market based supply as it is not a peak load day, the CPC 25 MW blocks also includes Light Load Hours and therefore will displace costly market purchases. It also provides benefits on Light Load Hour HE 23 (10 to 11 PM) on Heavy Load Hour days, an hour in which if the weather is cold FortisBC would most likely have to purchase from the market to meet load.

Light load capacity is not included in the Teck blocks since Teck requires that capacity to sell their surplus. It can not do so during the day since the Company has purchased the Heavy Load Hour capacity. This also explains why the price of the capacity blocks is based on the differential of the Heavy Load Hour and Light Load Hour prices.

If the Company requires Light Load Hour capacity blocks, it arranges for a day-ahead purchase rather than a monthly block.

63.0 Reference: Exhibit B-1, Application, Tab 6, Power Purchase and Wheeling, Table 6.2 and Table 6.3, pp. 14-15

Q63.1 Please describe what is meant by “Turbine Upgrades” (Line 13 in Tables 6.2 and 6.3) and explain why the value is zero throughout the term.

A63.1 Turbine upgrades refers to future expected entitlement power from the Companies upgrade of the generation plants. Please refer to BCUC 59.1.

Q63.2 Please describe what is meant by “City of Nelson Special Adjustment” (Line 17 in Tables 6.2 and 6.3) and explain how the amount is determined.

A63.2 The City of Nelson Special Adjustment represents energy provided to the Company by the City of Nelson to compensate the Company for an Entitlement Outage the Company takes on behalf of the City of Nelson. This Entitlement Outage is equal to the amount of energy the City of Nelson is obligated to sell to BC Hydro and is the delivery of this energy to BC Hydro. The Company entered into this arrangement at the request of BC Hydro and the City of Nelson.

The impact to the Company is that the City of Nelson does not have to wheel the energy through the Company’s transmission system, however, since the Company takes an Entitlement Outage to provide the energy to BC Hydro, the Company’s water fees are reduced and BC Hydro’s water fees are increased.

Q63.3 Please explain the reasons for the majority of “Market Capacity – ENERGY” (Line 18 in Table 6.2) purchases occurring in March and July 2009 rather than over the winter peak. Why is capacity being purchased in July?

A63.3 The capacity blocks the Company purchases greatly reduce, or even eliminate, the amount of market purchases required over the November to February time period to meet load. No capacity blocks are purchased for March and July and these are the next two months in which the Company load requirements are the highest. These purchases are being made to meet load.

1 **Q63.4 Please explain how BC Hydro energy purchases (“BCH Purchase”, Line 20 in Table 6.2)**
2 **are occurring apparently at the same time as surplus sales (“Surplus”, Line 23 in Table**
3 **6.2), for instance as shown in the month of July 2009.**

4 A63.4 The Company requires capacity (and the associated energy) from BC Hydro during the day to
5 meet its loads. During the night, surpluses are generated that must be disposed of. The Canal
6 Plant Agreement does not allow for these surpluses to be held over to provide energy to the
7 Company later in the year, therefore, they must be sold.

8 **Q63.5 Please explain the significance of the “Surplus Rate” (Line 25 in Table 6.2) in those**
9 **months where there are no surplus sales, for instance in August through December 2009.**

10 A63.5 The expected market energy purchase rate (Line 31) for future months is set to the surplus rate
11 and therefore it is convenient to leave it in the spreadsheet for future months.

12 **Q63.6 Please explain the reason for the large amount of “Market Capacity” (Line 54 in Table 6.2)**
13 **purchases in June 2009 when the capacity being purchased from BC Hydro (“BCH:**
14 **Billing Capacity,” Line 61 in Table 6.2) appears to be significantly greater than is being**
15 **used to serve load (“BCH: Used for Load,” Line 62 in Table 6.2).**

16 A63.6 The price of the market capacity and associated energy was lower than the BC Hydro energy
17 price. Since BC Hydro energy must also be purchased to make use of BC Hydro capacity, it
18 was more cost effective to purchase from the market.

19 **Q63.7 Please explain the reason for the “Export Wheeling Costs” (Line 79 in Table 6.2)**
20 **associated with the May 2009 surplus sales of 5.861 GW.h while there is no wheeling cost**
21 **associated with the July 2009 surplus sales of 31.816 GW.h.**

22 A63.7 In May of 2009 the Company entered into physical sales and therefore self-assessed wheeling
23 costs under the Company transmission tariff.

Q63.8 Please provide the energy volumes and prices associated with the values shown in line item “Capital Projects” (Line 88 in Table 6.2).

A63.8 January-South Slocan Unit 3 (\$60,000). Approximately 16 MW, no energy, taken at capacity block rate of approximately \$3,773 per MW as given in Table 6.2.6.

February-South Slocan Unit 3 (\$18,000). Approximately 16 MW partial month outage taken at capacity block rate of \$3,147 prorated for the month.

May-South Slocan Unit 3 (\$14,000). 462 MWh @ BC Hydro energy rate of \$31.1 per MWh.

May-South Slocan Unit 2 (\$15,000). 1310 MWh @ \$11.1 per MWh.

November—South Slocan Unit 1 (\$74,000). Approximately 16 MW, no energy, taken at the capacity block rate of approximately \$4,980 per MW.

December-South Slocan Unit 1 (\$25,000). Approximately 16 MW partial month outage taken at capacity block rate of \$6,096 per MW prorated for the month.

Q63.9 Please explain the amounts associated with the line item “BCH Excess/Unallocated Costs” (Line 83 in Tables 6.2 and 6.3).

A63.9 Unscheduled purchases taken from BC Hydro incur a 15% premium in cost that is accounted for on this line as excess energy charges. Unallocated costs are the variance between the energy the Company estimates it purchased from BC Hydro in any given month and is finally mutually agreed upon with BC Hydro when the month is settled.

Q63.10 Please explain the reason for a greater total amount of “FortisBC” energy and capacity in 2010 (Lines 6 and 49 in Table 6.3) as compared to the total amount in 2009 (Lines 6 and 49 in Table 6.2).

A63.10 Please refer to BCUC 2.1 for a detailed calculation of Line 6 in Tables 6.2 and 6.3. Line 49 is different due to slightly different expected unit outages in 2010 than 2009.

Project No. 3698570: Application for 2010 Revenue Requirement

Requestor Name: British Columbia Utilities Commission

Information Request No: 1

Request Date: October 16, 2009

Response Date: October 30, 2009

- 1 **64.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.0,**
2 **Overview, Table 7.0, p. 2**
- 3 **Q64.1 Please provide a table in the form of Table 7.0, providing the 2009 and 2010 plan and**
4 **forecast values minus any projects and expenditures approved via a CPCN. Please also**
5 **provide the 2008 plan, forecast, and actual values, again excluding any projects and**
6 **expenditures approved via a CPCN.**
- 7 A64.1 Please refer to the following tables:

2009-10 Capital Expenditure : Plan & Forecast

Sl. #	Parameters	CPCN Ref.	2009		2010	
			Plan	(Forecast) October 1st 2009 Filing	Plan	(Forecast) October 1st 2009 Filing
			(\$000s)			
1.0	<u>Generation Total</u>		21.5	20.2	20.1	19.1
1.1	CPCNs Approved :					
1.2	Corra Linn Unit 2 Life Extension	C-5-09	-	-	3.0	3.0
1.3	Generation Total Without CPCNs		21.5	20.2	17.1	16.1
2.0	<u>Transmission and Stations Total</u>		94.9	52.0	85.3	91.8
2.1	CPCNs Approved :					
2.2	Ellision Distribution Source	C-4-07	1.7	6.6	-	0.5
2.3	Black Mountain Source	C-7-07	4.5	6.9	-	-
2.4	Okanagan Transmission Reinforcement	C-5-08	30.3	20.1	74.4	62.3
2.5	Kettle Valley	C-6-06	-	0.6	-	-
2.6	Big White	G-154-06	-	0.1	-	-
2.7	Ootishenia Substation	C-10-07	0.4	0.1	-	-
2.8	Benvoulin Substation	C-1-09	3.6	4.4	13.3	13.3
2.9	Transmission and Stations Total Without CPCNs		54.4	13.2	(2.4)	15.7
3.0	<u>Distribution</u>	No CPCN	22.1	23.1	25.9	29.5
4.0	<u>Telecom, SCADA, Protection and Control</u>		2.1	2.9	2.1	2.3
4.1	CPCNs Approved :					
4.2	Distribution Substation Automation Program	C-11-07	1.3	2.1	1.4	1.7
4.3	Telecom, SCADA, Protection and Control without CPCNs		0.8	0.8	0.7	0.6
5.0	<u>Information Systems</u>	No CPCN	5.2	4.5	4.5	4.5
6.0	<u>General Plant</u>	No CPCN	4.9	4.7	4.7	7.1
7.0	<u>Demand Side Management</u>	No CPCN	2.5	2.5	2.7	2.8
8.0	Total Capital without CPCNs		153.1	110.0	145.2	157.1
9.0	Total CPCNs		41.9	40.9	92.1	80.8
10.0	Total Capital Without CPCNs		111.3	69.1	53.1	76.3

2008 Capital Expenditure: Plan & Forecast

Sl. #	Parameters	CPCN Ref.	2008	
			Plan	Actual at 31st Dec 2008
			(\$000s)	
1.0	<u>Generation Total</u>		19.0	16.2
1.1	CPCNs Approved :			
1.2			-	-
1.3	Generation Total Without CPCNs		19.0	16.2
2.0	<u>Transmission and Stations Total</u>		59.3	47.0
2.1	CPCNs Approved :			
2.2	Ellision Distribution Source	C-4-07	13.0	7.8
2.3	Black Mountain Source	C-7-07	6.7	6.8
2.4	Kettle Valley	C-6-06	4.8	4.8
2.5	Big White	G-154-06	7.2	7.4
2.6	Okanagan Transmission Reinforcement	C-5-08	3.3	3.4
2.7	Transmission and Stations Total Without CPCNs		24.3	16.7
3.0	<u>Distribution</u>	No CPCN	20.2	24.8
4.0	<u>Telecom, SCADA, Protection and Control</u>		3.1	2.0
4.1	CPCNs Approved :			
4.2	Distribution Substation Automation Program	C-11-07	1.5	1.1
4.3	Telecom, SCADA, Protection and Control without CPCNs		1.6	0.9
5.0	<u>Information Systems</u>	No CPCN	3.5	4.5
6.0	<u>General Plant</u>	No CPCN	5.0	4.3
7.0	<u>Demand Side Management</u>	No CPCN	1.6	1.9
8.0	Total Capital without CPCNs		111.7	100.6
9.0	Total CPCNs		36.5	31.3
10.0	Total Capital Without CPCNs		75.2	69.3

1

2 **65.0 Reference:** Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.1.1,

Generation, Table 7.1.1, p. 4

Q65.1 Please provide the total (all years) project plan (approved), forecast and actual (if applicable) amounts for each of the following projects, and please provide variance reports for variances greater than 5 percent:

- South Slokan Unit 1 Life Extension
- South Slokan Unit 3 Life Extension
- Corra Linn Unit 1 Life Extension
- South Slokan Plant Completion
- Upper Bonnington Old Unit Repowering (Ph. 1)

A65.1

	Order G-11-09	Total Capital Forecast	Variance	Variance As %	Variance Explanation
1 South Slokan Unit 1 Life Extension	17,861	16,736	(1,125)	-6%	Actual contract prices for large equipment purchases are less than budgeted.
2 South Slokan Unit 3 Life Extension	13,061	12,827	(234)	-2%	Variance within 5%.
3 South Slokan Plant Completion	3,550	2,685	(865)	-24%	As a result of a schedule change efficiencies were gained in Project Management & Safety, Engineering and Outage costs, by completing the scope of work at the same time as the ULE. Actual contract prices for Protection & Control equipment and commissioning was also less than budgeted.
4 Upper Bonnington Old Plant Repowering (Ph. 1)	5,887	5,182	(705)	-12%	Under spending due to cost of removal included in capital plan in error, and savings in AFUDC, as equipment was moved to plant in service sooner than forecasted.
5 South Slokan Unit Head Gate Rebuild	856	855	(1)	0%	Variance within 5%.
6 South Slokan Head Gate Hoist, Control Wire Rope Upgrade	1,103	918	(185)	-17%	Scope review and project efficiencies allowed for reduced overall costs.
7 All Plants Lighting Upgrade	816	726	(90)	-11%	Scope review and project efficiencies allowed for reduced overall costs.
8 All Plants Spare Unit Transformer	1,849	1,191	(658)	-36%	Under budget, the tendered transformer cost is less than budgeted.
9 Minor Projects	3,065	2,759	(306)	-10%	Scope review and project efficiencies allowed for reduced overall costs on these minor projects.
10 Total Generation	48,048	43,879	(4,169)	-9%	

1 **Q65.2 Please explain the variances in the forecast amounts over plan for the South Slocan Unit**
2 **1 Head Gate Rebuild project and the South Slocan Head Gate Hoist, Control, Wire Rope**
3 **Upgrade project.**

4 A65.2 The variance in the forecast amounts over plan for the South Slocan Unit 1 Head Gate Rebuild
5 project and the South Slocan Head Gate Hoist, Control, Wire Rope Upgrade project are due to
6 scheduling changes.

7 The 2009 forecast for the South Slocan Head Gate project has increased by \$0.212 million over
8 budget, due to the schedule being advanced, work schedule to be completed in 2010 is now
9 being completed in 2009. This project is forecast to be on budget for total project.

10 The 2009 forecast for the South Slocan Head Gate Hoist, Control, Wire Rope Upgrade project is
11 forecast to be \$0.313 million over in 2009 due to contract payments that were originally
12 budgeted in 2008 but were actually made in 2009. Scope review and project efficiencies allowed
13 for reduced overall costs.

Project No. 3698570: Application for 2010 Revenue Requirement

Requestor Name: British Columbia Utilities Commission

Information Request No: 1

Request Date: October 16, 2009

Response Date: October 30, 2009

1 **66.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.1.2,**
2 **Transmission and Stations, Table 7.1.2, p. 5**

3 **Q66.1 Please provide the total (all years) project plan (approved), forecast and actual (if**
4 **applicable) amounts for all the Growth projects in Table 7.1.2, and please provide**
5 **variance reports for any variances greater than 5 percent.**

6 A66.1 Provided below is a table showing the Transmission and Stations projects total forecasts and
7 expenditures.

Project No. 3698570: Application for 2010 Revenue Requirement
Requestor Name: British Columbia Utilities Commission
Information Request No: 1
Request Date: October 16, 2009
Response Date: October 30, 2009

Sl. #	Transmission & Stations Growth Projects	Cap-Ex Forecast			Cap-Ex per G-11-09, Pg 12			Variance: G-11-09, Pg 12		Remarks: Variance Explanation
		Expense	Expense	Total	Expense	Expense	Total			
		2009	2010	2009+10	2009	2010	2009+10	\$	%	
1	Ellison Distribution Source	6,599	500	7,099	1,734	-	1,734	5,365	309.4%	The variance is due to Land re-zoning application process. Expenditures originally planned for 2008 have been delayed to 2009.
2	Black Mountain Distribution Source	6,871	-	6,871	4,517	-	4,517	2,354	52.1%	The variance is due to Land re-zoning application process. Expenditures originally planned for 2008 have been delayed to 2009.
3	Okanagan Transmission Reinforcement	20,069	62,325	82,394	65,265	57,893	123,158	(40,764)	-33.1%	Please refer to the response to BCUC IR # 67.3
4	Benvoulin Distribution Source	4,434	13,301	17,735	4,382	13,301	17,683	52	0.3%	The variance in the Naramata project is due to the favourable results from the competitive bid process of the Site/Civil construction timed or combined with the economic uncertain times. Additional saving may also attributed to the award to a local contractor.
5	Big White 138 KV Line & Substation	124		124	-	-	-	124	NA	
6	Kettle Valley	610		610	-	-	-	610	NA	
7	Naramata Rehab	2,728	-	2,728	3,962	-	3,962	(1,234)	-31.1%	
8	Huth Split Bus	-	413	413	-	413	413	-	0.0%	The variance is due to wrap-up cost were below forecast. The forecast is to be under Budget however tendering of the all work has not been completed. The forecast is to be under Budget however detailed engineering and all work has not been completed. 2009(Phase 1) of the study has forecasted spending is below plan due the late start to the project and increased utilization of internal resources versus consultants. 2010 will complete have the completion of Phase 1 and Phase 2 of the study is forecast to have much higher use of external resources versus internal resources. The project is now forecast to be approximately 10% under Budget.
9	Ootischenia substation	142	-	142	389	-	389	(247)	-63.5%	
10	Recreation Capacity Increase Stage 1,2,3	918	2,257	3,175	178	3,401	3,579	(404)	-11.3%	
11	Tarry's Capacity Increase	363	-	363	403	-	403	(40)	-9.9%	
12	Kelowna Distribution Capacity Requirements	251	517	768	518	517	1,035	(267)	-25.8%	To be the subject of a future CPCN - 2009 SDP Update
13	30L Conversion	2,109	2,340	4,449	4,500	-	4,500	(51)	-1.1%	
14	Static VAR Compensators	-	-	-	-	400	400	(400)	-100.0%	

Q66.2 Please provide the Transmission Sustaining and Stations Sustaining plan and actual amounts from 2006 onwards.

A66.2 Provided below is a table showing the Distribution Sustaining program plan and actual amounts from 2006 onward.

Transmission Sustaining			
	(\$000s)		
	Plan	Actual	Comments
2006	5,552	5,520	A significant amount of work was carried over from 2005 for execution in 2006. Approx. \$0.40 million of work (32L& 45L) is being carried over into 2007 of which \$1.10 million for Mobile Sub \$2.0 mil of carryover primarily due to resourcing limitations
2007	3,671	2,736	Some transmission condition assessments, switch additions and Rehab have been shifted to 2009
2008	3,528	3,038	Several transmission condition assessments, switch additions and Rehab have been shifted to 2009

Q66.3 Please describe the disposition of the forecast under spending in the 2009 Transmission Sustaining and Stations Sustaining programs. Has the entire scope of work been completed under budget, or has the scope of work not been completed? If the entire scope of work has not been completed, is the work carried over into 2010, and if so, in what amount?

A66.3 The scopes of work for both the 2009 Transmission Sustaining and Station Sustaining programs are forecast to be completed with the following exceptions. The forecasted under spending in the Transmission Sustaining program is due to the reallocation of funds targeted for Transmission Pine Beetle Hazard to the Distribution Sustaining program - Distribution Pine Beetle Hazard. Station Sustaining expenditures are affected by the scheduling of work at the Creston Substation and Pine Street to 2010 due to procurement of equipment. The work to be carried over to 2010 is forecast to be \$0.51 million.

Project No. 3698570: Application for 2010 Revenue Requirement

Requestor Name: British Columbia Utilities Commission

Information Request No: 1

Request Date: October 16, 2009

Response Date: October 30, 2009

1 **Q66.4 If the entire scope of work in the 2009 Transmission Sustaining and Stations Sustaining**
2 **programs has not been completed, please provide a detailed listing of the projects in**
3 **those programs, and provide variance reports for variances greater than 10 percent**
4 **between the project plan and forecast amounts, or where the planned scope has not**
5 **been completed.**

6 A66.4 The scope of work is forecast to be complete.

67.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.1.2, Transmission and Stations, OTR Project, p. 6

“The OTR Project is forecast to be completed under budget due to favourable fixed contract pricing. This favourable pricing along with a refinement in project component schedules will result in expenditures of \$20.1 million in 2009 compared to the plan of \$65.3 million.”

Q67.1 Please provide a detailed reconciliation and comparison of the plan and forecast amounts for the OTR project. Please explain which components of the project were completed under budget and by what amount.

A67.1 At this time, no project components have been completed. The 40 Line construction component is on schedule to be completed in November 2009 and the Bentley Terminal and 75/76 Line components are currently underway.

The comparison below outlines where the savings are currently located in the total project forecast. Forecasts are compared to the revised budget submitted to the BCUC in March 2009.

Component in Progress	Revised Budget	Current Forecast	Variance
	\$ millions		
Double Circuit 230kV Vaseux to Penticton 40 Line	53.8	30.9	(22.9)
Bentley Terminal Upgrade	31.0	25.0	(3.1)
AFUDC savings			(2.4)
Total forecasted savings to date			(28.4)

Q67.2 Please discuss if the estimating procedures used to develop the OTR project budget are the same procedures typically used within FortisBC in the development of the project estimates.

A67.2 No, the OTR estimating procedures are not typical, the estimates used for the OTR project were developed by BC Hydro, as part of the Engineering, Procurement and Construction (“EPC”) contract in place between FortisBC and BC Hydro. Pricing used was based on actual costs from the VITR project and other related projects.

1 **Q67.3 Please discuss what amount (of the \$65.3 million of planned 2009 expenditures) has been**
2 **shifted into other years.**

3 A67.3 FortisBC re-submitted a project estimate & schedule update to the BCUC in March 2009
4 showing a revised 2009 project budget of \$31.5 million. \$33.8 million was shifted to subsequent
5 years 2010/11. FortisBC's current forecast for 2009 is \$20.8 million; the \$10.7 million difference
6 is primarily a result of cost savings.

68.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.1.3, Distribution, Table 7.1.3, p. 7

Q68.1 Please provide the Distribution Sustaining program plan and actual amounts from 2006 onwards.

A68.1 Provided below is a table showing the Distribution Sustaining program plan and actual amounts from 2006 onward.

The net Total 2007/ 2008 approved Capital versus Actual is under budget once the carryover from 2006 is normalized out.

Distribution Sustaining Capital			
Year	Plan	Actual	Comments
	(\$000s)		
2006	9,096	12,328	Approx. \$1.9 million of Line rehab was carried over to 2007 due to resourcing issues. 2006 overage due to carry-overs and PCB program increases
2007	8,016	10,417	includes carry-over from 2006
2008	9,231	8,474	some 2008 components completed in 2007
Total of 07/08 Capital Plan	17,247	18,891	
Less \$1.9 million 2006 Carry-over		(1,900)	Less 2006 Carry-over
Total Net of Carry-over	17,247	16,991	Total net of carry-over

Q68.2 Was the “Glenmore – New Feeder” project executed by FortisBC construction forces? What enabled the project to be completed exactly on budget?

A68.2 The Glenmore New Feeder is being planned for construction by a combination of FortisBC and non-FortisBC construction forces. The civil component of the project is to be done by non-FortisBC forces. The project is still in progress but is forecast to be completed on budget in Q4 of 2009.

69.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.1.3, Distribution, Copper Conductor Replacement, pp. 7-8

“Distribution Sustaining capital expenditures are forecast to exceed plan by \$1.2 million in 2009, primarily as a result of \$1.5 million required for replacement of copper distribution conductor on a priority basis.”

Q69.1 Please provide a detailed explanation as to why the copper conductor replacement program appears to have been undertaken as a Sustaining project when the project was specifically denied by the Commission in a CPCN application.

A69.1 The Company has undertaken the copper conductor replacement program as a Sustaining capital expenditure in accordance with the Commission’s Determination to Order No. G-165-08 (Reference Appendix A to Order No. G-165-08, Page 10) as follows:

“However, the Commission Panel accepts that the options of “do nothing” or “run to failure” are not viable where there are safety concerns. If, in fact, FortisBC has knowledge of specific conditions in its legacy copper system where factors such as hot taps, splices, or other circumstances are playing a role in triggering failures in its legacy copper system, then, given its obligation to mitigate risks to the safety of its workforce and the public, the Commission Panel believes that Fortis BC should be addressing these on a priority basis in the normal course of the operations and maintenance of its system. The Commission Panel further observes that FortisBC has the option to deal with the balance of its concerns as to the integrity of its legacy copper system over the course of the next ten to fifteen years under its normal Capital Growth and Sustaining programs, as it proposes to do for its non-legacy copper system.”

Please also see the response to BCOAPO Q21.

Q69.2 Please provide a complete listing of copper conductor failures in the FortisBC system since 2008 and the impact on the reliability performance indicators.

A69.2 The table below shows the copper conductor failures for 2008 and 2009 as captured in the Company’s outage reporting system. FortisBC notes that the need for replacement of the copper conductor is primarily based on the safety risk to the public and to employees, and not on reliability.

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Location	Feeder	Date	Customers (Affected)	Customer Hours	Customers (System)	SAIDI	SAIFI
Castlegar	BLU2	3/4/2008	1,311	731	96,621	0.008	0.014
Kelowna	OKM1	4/19/2008	2,631	3,661	96,621	0.038	0.027
Castlegar	PLA1	4/22/2008	-	-	96,621	0.000	0.000
South Slocan	25 Line	3/1/2009	2,474	5,728	108,363	0.053	0.023
Kelowna	LEE2	3/25/2009	35	111	108,363	0.001	0.000
Castlegar	CAS1	4/27/2009	-	-	108,468	0.000	0.000
Salmo	27 Line	6/15/2009	-	-	108,647	0.000	0.000
Oliver	PIN3	10/3/2009	not available at this time				

1

70.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.1.3, Distribution, 2009 Budget Performance, p. 8

“Three small Distribution Growth projects were planned to be completed in 2008 but were carried over into 2009 resulting in a forecast of \$1.4 million of carryover expenditures.”

Q70.1 Were the 2008 actual expenditures under plan by \$1.4 million because of the three carried over small Distribution Growth project, and if not, why not?

A70.1 The 2008 Distribution Growth project actual expenditures were not under plan by \$1.4 million because of the three carried over projects to 2009. The 2008 Distribution Growth project was over spent by \$266,000 because of carry over projects from 2007.

71.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.1.4, Telecommunication, Table 7.1.4, p. 8

Q71.1 Please provide the Telecommunication Sustaining program plan and actual amounts from 2006 onwards.

A71.1 Provided below is a table showing the Telecommunications Sustaining program plan from 2006 onward.









Telecommunication Sustaining				
		Plan	Actual	Comment
		(\$000s)		
2006	Communication and Automation	3,565	36	included DSAP and KV High Cap Fiber
	Protection and Communications Rehabilitation	976	1,125	
2007	Communication and Automation	3,458	162	included DSAP and KV High Cap Fiber
	Protection and Communications Rehabilitation	1,482	1,022	
2008	Communication and Automation	1,456	1,108	DSAP some projects accelerated from 2009
	Protection and Communications Rehabilitation	1,088	1,764	

72.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.1.4, Telecommunication, 2009 Budget Performance, p. 8

“The 2009 Telecommunications budget is forecast to be over primarily due to the shifting of DSA Station construction to align with other capital works underway or planned.”

Q72.1 Please describe where the shifted expenditures were shifted from and if the corresponding expenditures for that time period are now lower.

A72.1 The table below shows the various projects shifted to align with other capital works underway or planned. However the variance in the 2009 budget is due to the forecasted and/or estimated at completion values for the individual stations varying from the original estimate.

Installation / Substations	2007	2008	2009	2010	2011	Comments
Glenmore						Moved into 2009 to align with GLE New Feeder
Summerland						Moved to 2009 to distribute work
Beaver Park						Moved to 2011 to distribute work
Osoyoos						Moved to 2010 to distribute work
Playmor						Moved to 2010 to distribute work
Westminster						Moved to 2010 to align with Protection Upgrade
Huth						Moved into 2010 to avoid conflict with OTR.
Passmore						Moved to 2009 to align with VAL1 FDR Upgrade

73.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.1.1, Generation, South Slocan Plant Completion Project, p. 10

“Work on the South Slocan Plant Completion project, originally scheduled for 2010, was completed under budget in 2009 resulting in \$0.9 million of reduced expenditures in 2010.”

Q73.1 Please provide a detailed reconciliation of the planned scope versus the executed scope for this project, and where the reduced expenditures were realized and why.

A73.1 The requested information is provided below.

Planned Scope	Budget	Actual & Forecast	Variance	Variance as %	Variance Explanation
(\$000s)					
1 Mobilization, Demobilization & Wrap Up	179	152	(27)	-9%	As a result of a schedule change efficiencies were gained by completing the scope of work at the same time as the ULE project.
2 Project Management & Safety	277	165	(112)	-36%	As a result of a schedule change efficiencies were gained by completing the scope of work at the same time as the ULE project.
3 Engineering & Project Documentation	163	31	(132)	-79%	This scope of work was over estimated, similar engineering has been completed at other plants which allowed for cost savings.
4 Outage Costs	139	25	(114)	-81%	As a result of a schedule change efficiencies were gained by completing the scope of work at the same time as the ULE project.
5 Electrical Plant Completion	1,174	842	(332)	-23%	Main Lead Metal Enclosed Bus was removed from scope as it was determined there was a risk of damaging main lead cables if installed. Protection & Control equipment was less than budgeted due to savings in combining equipment purchase with ULE equipment.
6 Mechanical Plant Completion	270	355	85	41%	Scope of work under estimated.
7 Civil Plant Completion	523	507	(16)	4%	Minor overspending.
8 Commissioning	128	46	(82)	-62%	As a result of a schedule change efficiencies were gained by completing the scope of work at the same time as the ULE project.
9 AFUDC & Overheads	698	561	(137)	-20%	Project spending reduced therefore AFUDC and Overheads are reduced.
10 Total Project Spending	3,550	2,685	(865)	-24%	

74.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.1.6, Demand Side Management, p. 9

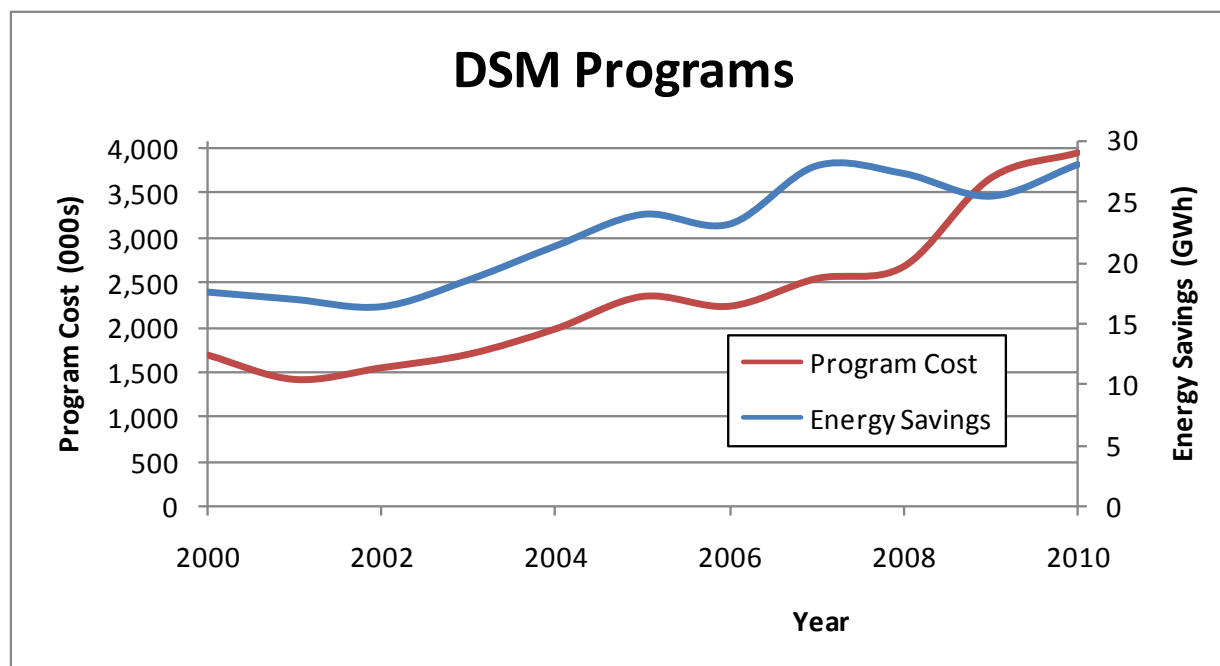
On page 9 it states that “Demand Side Management expenditures of \$2.5 million (net of tax) involve initiatives that provide information, engineering studies and rebates that promote energy efficiency and conservation. Through this initiative, the Company supports such programs as energy efficient lighting, air and ground source heat pumps, and industrial efficiencies. Planned expenditures beginning in 2009 have been increased in support of the 2007 BC Energy Plan.”

Q74.1 For the period 2000 to 2010F, please provide a table which compares individual DSM programs to their annual cost, annual energy savings (GWh), and TRC ratio. Please include an electronic version in a fully functioning spreadsheet.

A74.1 Please see the response to Q34.1 above.

Q74.2 Please provide a graphical representation of DSM program costs and energy savings during the 2000 to 2010F period.

A74.2 Please see the following graph.



Q74.3 For the period 2000 to 2011, please provide a tabular summary which allocates the expenses of the various DSM programs in the following categories: (a) incentives, (b) program design and administration, (c) impact evaluation and reporting, and (d) education and awareness.

A74.3

<u>Residential Programs:</u>	<u>Incentives</u>	<u>Education Awareness</u>	<u>Administration</u>	<u>Planning & Evaluation</u>
		(\$000s)		
Home Improvement	334	18	42	37
New Home	194	18	42	26
Heat Pumps	340	85	199	120
Residential Lighting	<u>107</u>	<u>33</u>	<u>103</u>	<u>45</u>
	975	155	386	228
<u>General Service Programs:</u>				
Lighting	482	72	168	100
Building and Process Improvement	<u>352</u>	<u>77</u>	<u>229</u>	<u>127</u>
	834	149	397	227
<u>Industrial Programs:</u>				
Compressed Air	72	4	10	18
Industrial Efficiency	<u>203</u>	<u>29</u>	<u>69</u>	<u>46</u>
	275	34	79	63
Conservation Culture		148		
Totals	2,084	485	862	519

75.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.1.6, Demand Side Management, p. 9

The Application states that “DSM expenditures of \$2.8 million (\$4.0 million before tax) forecast in 2010 were approved under Order G-11-09 as part of the Company’s 2009/10 Capital Plan Application. The approved 2010 spending level is required for the continuation of the Company’s existing DSM programs.”

Q75.1 On a consolidated basis for Residential, General Service, Wholesale, and Industrial customer groups, please summarize FortisBC DMS programs in the table below:

FortisBC Demand Side Management Program				Ref Line
2008	2009(F)	2010(F)		
DSM Program costs (\$)				1
Demand savings (GJ)				2
(i) Energy savings (\$)				3
(ii) FortisBC Avoided costs (\$)				4
Verifiable CO2 emission eliminated (tonne)				5
(iii) CO2 Tax credit saved form reduced emissions (\$)				6

Notes:

- (i) Demand savings (GJ) x \$/GJ retaile rates in effect in 2009
- (ii) Avoided capital and O&M costs
- (iii) Based on B.C. carbon tax in effect 2012 of \$30.00 per tonne of CO2

A75.1

FBC DSM Program	2008	2009F	2010F
Program Costs (\$000s)	\$2,683	\$3,668	\$3,952
Demand Savings (GJ)	N/A	N/A	N/A
Energy Savings (GWh)	27.3	25.3	27.5
FBC Avoided Costs (\$000s)	\$9,276	\$9,487	\$10,504
Estimated ¹ CO ₂ reduction (tonne)	N/A	N/A	N/A
CO ₂ Tax credit ² (\$000s)	N/A	N/A	N/A

¹ Based on 6 tonnes per GWh

² Based on BC carbon tax rate in 2012 of \$30.00/tonne

- Demand savings cannot be measured in GJ (which is a unit of energy) since electrical demand is not a measure of energy, it is a measure of power.
- As an outcome of the first point, demand savings cannot be converted to energy savings using the formula provided (therefore we are simply providing the estimated or forecast power purchase savings).
- FortisBC has not estimated “verifiable CO2 emissions” per unit of energy for the electricity it provides

1

2 **Q75.2 To what degree have forecasted CO2 savings shown in reference line 2 of the above**
3 **table been achieved through customers substituting different fuels for electricity?**
4 **Wherever possible, please provide supporting data and calculations.**

5 A75.2 FortisBC does not track CO2 savings which may accrue with its DSM programs, nor is the
6 Company aware of CO2 tax credits, thus none are forecast.

7 **Q75.3 Please discuss how CO2 emissions eliminated in reference line 5 in the above table were**
8 **calculated, and provide supporting data and calculations.**

9 A75.3 Please refer to A75.2.

76.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.1.6, Demand Side Management, p. 9

Q76.1 DSM programs generally reduce electricity costs and increase electricity prices. What long-term impact will FortisBC's DSM program have on costs and prices over the next 10 years?

A76.1 The 2011 DSM Plan, to be filed in 2010, will provide a long term forecast of DSM savings and an estimate of the DSM costs. The DSM costs, and rate impacts thereof, will be filed as part of the Company's Capital Expenditure Plans.

Q76.2 Please provide an estimate of the price elasticity of demand coefficient for electricity in the territory serviced by FortisBC. If the price elasticity of demand is not known, please provide published figures for other similar electrical utilities in British Columbia.

A76.2 FortisBC believes the consumers' price elasticity of demand to be in the ranges shown below based on elasticity studies performed by EES Consulting Inc., and their review of published data.

Customer Class	Elasticity of Demand
Residential	-0.1 to -0.3
Commercial	-0.1 to -0.3
Industrial	-0.1 to -0.8

Q76.3 Please discuss the extent to which FortisBC's DSM program could lead to reductions in capital and O&M costs for FortisBC as well as reductions in rates for customers. Please discuss the circumstances under which this could occur and the probability of that occurrence.

A76.3 To date the Company has not attempted to quantify reductions in capital and O&M costs from DSM programs, only power purchase reductions.

Q76.4 If DSM leads to higher capital and O&M costs for FortisBC, what impact would an average annual increase of 1% in those costs have on customer rates and billing over the next 10 years?

A76.4 FortisBC has not prepared a ten year rate forecast. Please see the following table for the impact on 2010 rates. In summary:

1. A 1% increase in DSM costs and associated amortization will not have any significant effect on customer rates and revenue as indicated in the Table below.
2. A 1% increase in DSM costs and associated amortization along with a 1% increase in O&M Cost (with revised O&M – assuming additional DSM operating cost per Q 76.4 above, is excluded from the formula in calculating Base O&M) will have impact on customer rates and revenue as indicated in the Table below.

Parameters	Prelim 2010	Revised 2010	\$\$ Variance	% Variance	Remarks
<u>Deferreds 2010:</u>					
Additions Net	2,826	2,854	28	1%	As per BCUC IR Q 76.4
Amortization Net	(2,349)	(2,378)	(29)	1%	As per BCUC IR Q 76.4
<u>Operating Expenses:</u>					
O&M Expense	47,883	48,363	479	1%	Additional DSM costs as per BCUC IR-1 Q 76.4 are excluded from the formula in calculating Base O&M.
Capitalized Overhead	(9,577)	(9,673)	(96)	1%	
Total O&M	38,307	38,690	383	1%	
<u>Revenue & Rates with only increased DSM Cost:</u>					
Adjusted Revenue Requirements	250,879	250,920	41	0.0%	
Less: Revenue at approved Rates	239,873	239,873	-	0.0%	
Revenue Deficiency for Rate Setting	11,006	11,048	41	0.4%	
Rate Increase	4.6%	4.6%		0.0%	
<u>Revenue & Rates with increased DSM & O&M Cost:</u>					
Adjusted Revenue Requirements	250,879	251,267	388	0.2%	
Less: Revenue at approved Rates	239,873	239,873	-	0.0%	
Revenue Deficiency for Rate Setting	11,006	11,394	388	3.5%	
Rate Increase	4.6%	4.8%		0.2%	

Q76.5 Please show the calculations for FortisBC's cost per GWh of DSM program savings for the 10 year period 2010 to 2019. Please discuss the key assumptions behind the data and provide a fully functional spreadsheet with the calculations.

A76.5 The period of 2011-2019 will be covered by the 2011 DSM Plan and the cost per GWh for that period will be included in that Application. The cost per GWh for the 2010 DSM program is \$29.55 per MWh. The fully functional spreadsheet is attached.

77.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.2.2, Transmission and Stations, Table 7.2.2, p. 12

Q77.1 Please provide the total (all years) project plan amount for the Huth Substation Upgrade Growth projects in Table 7.1.2.

A77.1 The total (all years) project plan amount for the Huth Substation Upgrade Growth project in Table 7.1.2 is \$3.413 million as presented in the 2009/10 Capital Expenditure Plan ("CEP").

Q77.2 Please provide a listing of the projects in the Transmission Sustaining and Stations Sustaining programs.

A77.2 The list of projects in the Transmission Sustaining and Station Sustaining programs can be found below..

- Transmission Line Urgent Repairs
- Right-of-Way Easements
- Right-of-Way Reclamation
- Transmission Pine Beetle Hazard Allocation
- Transmission Condition Assessment
- Transmission Line Rehabilitation
- Switch Additions
- 30 Line Lake - Crossing Rehabilitation

The 20 Line Rebuild and 27 Line Rebuild projects initially included in the 2009/10 CEP will be the subject of a future application, as directed by the Commission in Order G-11-09.

- Station Assessments & Minor Planned Projects
- Ground Grid Upgrades
- Station Urgent Repairs
- Bulk Oil Breaker Replacement Program
- Slocan City-Valhalla Substation Upgrade
- Passmore Substation Upgrade
- Pine Street Substation –Distribution Breaker replacement
- Princeton Substation Distribution Recloser replacement
- Creston Substation Protection Upgrade

The Transformer Load Tap Changer Oil Filtration and the Joe Rich Transformer Protection Upgrade projects initially included in the 2009/10 CEP were not approved.

78.0 Reference: Exhibit B-1, Application, Tab 7, Capital Expenditures, Section 7.2.6, Demand Side Management, p. 14

Q78.1 Demand Side Management programs have been provided by FortisBC since 1989. Please list all written reports and impact evaluations of FortisBC's energy savings programs during the past 6 years.

A78.1 2009 DSM Semi-Annual Report to June 30, 2009
2008 DSM Monitoring and Evaluation Plan 2009 through 2011
2008 Strategic Demand-Side Management Report
DSM Semi-Annual Report to December 31, 2008
DSM Semi-Annual Report to June 30, 2008
2007 DSM Semi-Annual Report to December 31, 2007
2006 DSM Semi-Annual Report to December 31, 2006
DSM Semi-Annual Report to June 30, 2006
2005 DSM Semi-Annual Report to December 31, 2005
DSM Semi-Annual Report to June 30, 2005
2005 Energy Savings and Demand Reduction Potential
2004 DSM Semi-Annual Report to December 31, 2004
DSM Semi-Annual Report to June 30, 2004

Q78.2 Please summarize savings, demand and expenditure data in the following format:

FortisBC - DSM Program Energy Savings							Ref Line
	2005	2006	2007	2008	2009P	2010F	
Annual Savings (GWh)							1
Actual Demand of Electricity (GWh)							2
Energy Savings (%)							3
DSM Expenditures net of tax (\$ million)					\$ 2.6	\$ 2.8	4

A78.2

FortisBC - DSM Program Energy Savings

Year:	2005	2006	2007	2008	2009P	2010P
Savings (GWh)	23.9	23.1	27.9	27.3	25.3	27.5
Net Load (GWh)	3,009	3,070	3,085	3,061	3,083	3,174
Savings (Percent)	0.8%	0.8%	0.9%	0.9%	0.8%	0.9%
DSM expenditures net (\$ million)	1.6	1.5	1.6	1.9	2.6	2.8

Q78.3 For the period 2005 to 2009P, please compare in tabular format:

- Approved DSM expenditures with actual DSM expenditures; and
- Forecasted DSM savings with actual DSM savings.

A78.3

Summary of DSM Costs				Summary of Energy Savings		
	Plan	Actual	Percent	Plan	Actual	Percent
2005	1,835	2,350	128%	19.0	23.9	126%
2006	2,234	2,241	100%	20.4	23.1	113%
2007	2,474	2,549	103%	21.8	27.9	128%
2008	2,355	2,683	114%	19.5	27.3	140%
2009 YTD	1,832	1,756	96%	12.7	15.3	121%

Q78.4 For the above questions, please provide an electronic copy of all tabular data in the form of a fully functional spreadsheet.

A78.4 The electronic file is attached.

79.0 Reference: Exhibit B-1, Application, Tab 8, Performance Standards, pp. 2-20

Q79.1 Since all performance targets cover the 12-month period between October 1, 2008 to September 30, 2009, why is the 2009 figure presented as “estimate” instead of “actual”. Is there an indication that these 2009 figures are subject to change / update?

A79.1 Yes. The Preliminary Revenue Requirements were filed on October 1, 2009 and included actual performance target data for the time period October 1, 2008 to July 31, 2009. The performance targets for the time period August 1, 2009 to September 30, 2009 are forecast, as actual data was not available at the time FortisBC was required to file its Preliminary Revenue Requirements on October 1, 2009. Advance information must be provided by FortisBC to the Commission and Registered Intervenors on or before November 2, 2009 for use at the Annual Review as set out in Commission Order G-118-09. Actual results will be filed at that time.

Q79.2 As a sensitivity impact, please calculate the effect to the 2010 target of an increase of 1 additional injury (either lost time or medical aid) to the 2009 estimate. Subsequent, please calculate the resulting target for 2010 using this new 2009 estimate.

A79.2 Actual: AIFR = 1.61, Target = 1.92;
 1 additional injury AIFR = 1.84, Target = 2.00

Q79.3 Please provide details to the 7 recordable injuries (2 medical aid + 5 lost time injuries) that occurred during 2009.

A79.3

Ref #	Injury	Date	Body part	Direct cause	Description	Group	Area
170	LTI	9-Oct-08	wrist strain	struck against	Wrench released under pressure	Fleet	Warfield
174	LTI	16-Oct-08	respiratory tract	oil mist	Inhaled over oil leak	Fleet	Warfield
215	LTI	6-Jan-09	mouth	struck by	Pulled triplex out of ice into face	T&D	Castlegar
230	LTI	14-Jan-09	groin	Burn	Welding slag burn	Gen	Brilliant
319	LTI	9-Jun-09	knee	Strain	Twisted while walking	T&D	Princeton
333	MA	27-Jul-09	lip	struck by	Fuse barrel fell and lacerated lip	T&D	Castlegar
336	MA	27-Jul-09	eye	particle	Wind blew particle in eye	T&D	Princeton

1 **Q79.4 Please confirm that these injuries were reported to WorksafeBC?**

2 A79.4 Yes, each injury has a WorkSafeBC claim associated with it.

3 **Q79.5 The 72 calendar days of lost time identified in the Injury Severity Rate calculates to**
4 **approximately 20% of a calendar year. Please comment on this observations.**

5 A79.5 Five injuries for a total 72 calendar days combined averages 14.4 days per LTI. The knee injury
6 contributed significantly as the employee required surgery..

7 **Q79.6 Please provide the number of work days missed due to injuries from comparable utilities,**
8 **if available.**

9 A79.6 Work days missed information is not available for utilities. The average days of work lost per
10 claim in WorkSafeBC for 2007 was 47 days. For comparison, the CEA Composite ISR for 2008
11 is 21.1.

80.0 Reference: Exhibit B-1, Application, Tab 8, Performance Standards, Section 8.2, Generator Reliability – Forced Outage Rate, p. 11

Q80.1 Please describe in detail the rupture of the cooler pipe in the Upper Bonnington Unit 3 transformer that led to the forced outage occurrence.

A80.1 The exact cause of the leakage is unknown as the coiled tube assembly is located inside the transformer tank and the tank was not opened during the repair. There are several potential causes for a leak in the cooling system, including:

- Defective soldering at joints;
- Vibration and water hammering affected the soldering; and
- Erosion from silt, salt, and water impurity.

The rupture caused the leakage of cooling water into the tank, displacing the oil in the tank until the high oil level alarm was tripped. As a result of the leak, the transformer insulation material and oil became saturated. In order to return the unit to service, the water had to be completely removed from the transformer tank, oil and insulation materials. Failure to do so could have caused a catastrophic failure of the unit.

Q80.2 Please provide the dates of all routine and non-routine maintenance that were scheduled for this transformer in the past 15 years. Has there been any routine maintenance that was delayed during this same time period?

Q80.2 Below is historical maintenance data that is contained within the CASCADE maintenance software.

Dissolved Gas Analysis	Oil Quality Tests	Power Factor and Capacitance Electrical Tests	Fault Reports
2/15/1999	6/15/1994	10/1/1996	05/27/2009 - UBO T3 B phase unit water failure
1/15/2002	2/15/1999	6/5/1997	09/10/2009 – UBO T3 B Phase unit oil processing test for water removal
2/3/2003	3/19/2002	4/26/2000	
10/8/2003	2/3/2003	10/7/2005	
11/1/2004	10/8/2003	5/27/2009	
10/6/2005	11/1/2004		
4/14/2006	10/6/2005		
10/30/2006	10/30/2006		
1/14/2008	3/7/2007		
6/1/2009	1/14/2008		
	6/18/2009		

Please see attached a further history of maintenance work performed on the unit from the Generation Work Order system. Maintenance records for this unit were transferred from the Generation Work Order system to CASCADE in 2007, resulting in the two sources of data.

Q80.3 Has this transformer ever been upgraded during the period of time that it has been in service?

A80.3 The only upgrade this unit has received is oil level indication installed in October 2005. The upgraded oil level indicator was upgraded for environmental reasons and to provide early warning of any leaking cooling coils in the unit.

Q80.4 Please detail the lost productivity from generation as a result of this forced outage?

A80.4 Due to the loss of the unit there was a 4.4MW Capacity Entitlement loss, and an Energy Entitlement loss of 2,514 MWh in total.

Q80.5 How did FBC compensate the system demand for this lost capacity during 2009? Were there increased market purchases required to meet system demand? If so, please identify.

A80.5 The dollar value for lost power due to the UBO Unit #3 outage includes both Capacity replacement costs and Energy replacement costs. Please see the summary below for a breakdown and explanation for both of these replacement costs:

Capacity Estimate

Due to the loss of the unit there was a 4.4 MW Capacity Entitlement loss, which was replaced with either Market purchases or BC Hydro PPA purchases for about 50% of the hours during the Unit 3 outage, when the FortisBC resources did not meet the System Capacity requirements.

The costs of the Capacity replacement are estimated as follows:

- About 50% of the hours (about 310) required capacity purchases to make up for the 4.4 MW reduction due the outage.
- During these hours, based on a review of actual power purchase costs (PPA and market purchases), the average value for power purchases is estimated as the BC Hydro PPA pre-schedule cost of \$31.14 per MWh.
- Estimated Capacity replacement costs = 310 hours * 4.4 MW * \$31.14/MWh = \$42,475.

Energy Estimate

Due to the loss of the unit there was a Energy Entitlement loss of 2,514 MWh. This energy was replaced by the energy related to the capacity purchases outlined above, and by taking advantage of low power purchase prices through the freshet. The costs of the Energy replacement are estimated as follows:

- The energy related to the capacity purchases above are calculated as 310 hours * 4.4 MW = 1,364 MWh.
- The additional energy that has to be replaced due to the outage are calculated as 2,514 MWh – 1,364 MWh = 1,150 MWh.
- The Energy replacement cost is estimated at \$4/MWh (during the May 22 to June 17 outage FortisBC was able to purchase about 14 GWh of energy at \$4/MWh)
- Estimated Energy replacement costs = 1,150 MWh * \$4/MWh = \$4,600

1 Therefore the total estimated cost of Power Purchases related to the outage is approximately
2 \$47,000.

3 **Q80.6 What is the average service life of a comparable transformer in FortisBC's asset pool?**

4 A80.6 This unit was installed in the early 1900s. The only other units of comparable age are also
5 installed at Upper Bonnington. Records indicate that of the originally installed comparable units
6 have failed over the past 20 years and were replaced with new units. The average expected
7 service life for this unit is approximately 75 years.

81.0 Reference: Exhibit B-1, Application, Tab 8, Performance Standards, Section 8.1.1, Safety and Health Indicators, pp. 4-7

Q81.1 Have all injuries and accidents been reported to WorkSafeBC?

A81.1 Yes, All injuries have a WorkSafeBC claim number.

Q81.2 Please explain why the 2010 Injury Severity Rate target should incorporate the 2007 performance when the 2008 and 2009 targets did not.

A81.2 Under the terms of the PBR Plan, the annual targets for safety metrics are to be calculated as the average of the three preceding years' results. FortisBC agreed to modify the Injury Severity Rate targets in 2008 and 2009 but did not agree to change the terms of the PBR Plan. The three year averaging method is intended to account for annual variation (both increases and decreases) in performance.

82.0 Reference: Exhibit B-1, Application, Tab 8, Performance Standards, Section 8.2.1, Transmission and Distribution Reliability Targets, pp. 8-10

“For 2009, the SAIDI and SAIFI targets have been calculated using the average of the 2006 - 2008 normalized results.”

Q82.1 Please describe what is meant by “normalized results”.

A82.1 The yearly total SAIDI and SAIFI statistics have been adjusted due to any major events that have occurred during the year. A major event is determined using the IEEE 2.5 Beta Method. The 2.5 Beta Method for normalizing utility reliability performance is a generally accepted, statistically based methodology for identifying outlying performance and classifying reliability data into “normal” and “major event” days. This allows the comparison of reliability metrics with or without the influence of the extreme “major event” days.

Q82.2 Please provide the analysis that shows the identification of 2.5 Beta events in 2009, show the incremental effect of each event had it been included in SAIDI and SAIFI.

A82.2 The Beta Method identifies major outage events by formulating a threshold for SAIDI. The major event day threshold is calculated by the following equation:

$$T_{MED} = e^{(\alpha + 2.5\beta)}$$

The average logarithm (ln) is calculated for each daily SAIDI for the previous 5 years. Alpha (α) is the average of these logarithms and the Beta (β) is the standard deviation of the logarithms. For 2009 the threshold was calculated using the following:

Log Average	(2.7836)	α
Standard Deviation	2.2704	β
2.5 Beta Threshold (minutes)	18.0377	Based on 2004 - 2008 data, any year 2008 daily SAIDIs

The daily limits to qualify as a major event for 2009 are 30,184 customer hours or a SAIDI of 0.3. There was one event on January 7, 2009 that qualified as a major event. If included, it would have increased SAIDI by 1.13 and SAIFI by 0.17 for a total of 3.27 for SAIDI and 1.70 for SAIFI.

Q82.3 Please describe more fully the corrections that were made to the 2008 SAIDI and SAIFI results. Would the adjustment have affected any past incentive evaluations?

A82.3 The 2008 SAIDI and SAIFI adjustments are the result of technology issues related to the FortisBC conversion to the ArcFM Geographic Information System (GIS). The process for reporting distribution outages at FortisBC requires field personnel to enter the outage date into the ArcFM GIS system and then send the information to the head end system for reporting purposes. The failure in 2008 was with the technology required to transfer the field information from some areas of the company into the head end system. This error was found and rectified during the distribution reliability year end review, and affected both the BCUC October to September and year end distribution SAIDI and SAIFI numbers.

The 2008 errors resulted in SAIDI of 2.98 versus the reported 2.55, and a SAIFI of 2.60 versus the reported 2.46. These results would not have changed the results related to the performance measures for 2008 SAIDI and SAIFI.

83.0 Reference: Exhibit B-1, Application, Tab 8, Performance Standards, Section 8.2.2, Generator Reliability - Forced Outage Rate, pp. 11-12

Q83.1 Please provide the calculation used to determine the Forced Outage Rate.

A83.1 The calculation used for Forced Outage Rate ("FOR") is provided by the Canadian Electrical Association.

The FOR% is the FOR hours divided by (# of days in a month X 24 hours X 15 Units X Operating %). For the period of October 1 2008 – September 30 2009 FortisBC had 674 hours of forced outage time during a 12 month period of 8,784 hours.

Q83.2 How much entitlement energy was lost due to the outage, and how has this been valued?

A83.2 Please refer to BCUC IR 80.5.

Q83.3 Was any actual generation lost because of the outage, and if so, how much? Was there any spill past UBO during the period of outage?

A83.3 Over the 26 days of the outage, it appears there was spill past UBO for 14 of the outage days. During these 14 days there was actual generation lost. A reasonable estimate of the lost generation is $2,514 \text{ MWh} \times 14 \text{ days} / 26 \text{ days} = 1,354 \text{ MWh}$.

Project No. 3698570: Application for 2010 Revenue Requirement

Requestor Name: British Columbia Utilities Commission

Information Request No: 1

Request Date: October 16, 2009

Response Date: October 30, 2009

- 1 **84.0 Reference: Exhibit B-1, Application, Appendix A, Prior Years Directives, Vegetation**
2 **Management Program Report, p. 2**
- 3 **“FortisBC to provide a report to identify if the vegetation management program is**
4 **effective for major event days.”**
- 5 **Q84.1 Please provide this report in advance of the Annual Review.**
- 6 A84.1 The report is attached as Appendix BCUC 84.1

Project No. 3698570: Application for 2010 Revenue Requirement

Requestor Name: British Columbia Utilities Commission

Information Request No: 1

Request Date: October 16, 2009

Response Date: October 30, 2009

1 **85.0 Reference: Exhibit B-1, Application, Appendix A, Prior Years Directives, Worst**
2 **Performing Circuits Report, p. 3**

3 **“FortisBC is to present a plan involving the worst performing circuits to lower SAIDI to**
4 **improve CAIDI.”**

5 **Q85.1 Please provide this report in advance of the Annual Review.**

6 **A85.1 The report is attached as Appendix BCUC 85.1**

86.0 Reference: Exhibit B-1, Application, Appendix B, Accounting Changes

Q86.1 Please confirm that FortisBC is prepared to dually report the Company's financials in both Canadian GAAP and IFRS starting January 1, 2010? Can FortisBC provide an estimate of the costs required for the preparation of this dual reporting as suggested in the previous questions?

A86.1 The Company is prepared to dually report FortisBC's financials in both Canadian GAAP and IFRS beginning January 1, 2010. Preliminary estimates of the system transition costs required for the preparation of this dual reporting is approximately \$180,000 to the end of year 2009.

Q86.2 Has FortisBC considered accumulating all adjustments to retained earnings at IFRS adoption of January 1, 2010 (as restated in 2010 and adjusted to retained earnings as at December 31, 2009) for future recovery?

A86.2 As outlined in Appendix B of the 2010 Preliminary Revenue Requirements, rather than record these adjustments in opening retained earnings at January 1, 2010, FortisBC has requested regulatory approval for Non-Rate Base Deferral Accounts to recognize the adjustments on transition, with a recommended settlement to be proposed in the 2011 Revenue Requirements.

IFRS 1, *First-time Adoption of IFRS*, establishes the transition requirements for the preparation of financial statements in accordance with IFRS for the first time. The general principle is that IFRS are to be applied retrospectively to the opening IFRS balance sheet (January 1, 2010), the comparative period (year ending December 31, 2010), and the reporting period (year ending December 31, 2011). Subject to certain exceptions and exemptions, all differences identified that would have effected prior period earnings would be recorded in opening retained earnings at January 1, 2010.

The Company has identified previously approved Non-Rate Base Deferral Accounts and certain pension adjustments that, due to the nature of rate-regulation, may be recognized as regulatory assets under IFRS, rather than recorded in opening retained earnings at January 1, 2010, depending on regulatory approval. These amounts are explained further in the 2010 Preliminary Revenue Requirements Application, Appendix B, items XI, XII, XIV, XVI, XVII, XVIII and XIX. Should any further adjustments be identified as required on transition to IFRS, the Company will request approval for deferral at that time.

1 **Q86.3 Please quantify the anticipated total 2009 and 2010 adjustments to retained earnings.**

2 A86.3 With the proposals outlined in Appendix B, there are no anticipated adjustments to retained
3 earnings in either 2009 or 2010. The adjustments that would otherwise have been recorded
4 through opening retained earnings at January 1, 2010 and the adjustments to earnings under
5 IFRS that would otherwise have been recorded through closing retained earnings at December
6 31, 2010 have instead been requested for approval in a Non-Rate Base Deferral Account.

7 The classification of amounts that have been requested for deferral are as follows:

Project No. 3698570: Application for 2010 Revenue Requirement
Requestor Name: British Columbia Utilities Commission
Information Request No: 1
Request Date: October 16, 2009
Response Date: October 30, 2009

Ref	Non-Rate Base Deferral Account	Approval requested for 2010	BCUC Order	Forecast 2010 (in \$000s) regulatory asset / (regulatory liability)
Non-Rate Base Deferrals Requested for Approval rather than as an Adjustment to Opening Retained Earnings at January 1, 2010:				
(XIII)	Pension and Employee Future Benefit Costs - Cumulative Unamortized Actuarial Gains and Losses Upon Transition	Yes		\$ 29,890
(XIV)	Pension and Employee Future Benefit Costs - Actuarial Gains and Losses	Not at this time		
(XV)	Pension and Employee Future Benefit Costs - Past Service Costs	Yes		included in (XII)
(XVI)	Pension and Employee Future Benefit Costs - Return on Plan Assets	Not at this time		
(XVII)	Pension and Employee Future Benefit Costs - Measurement Date	Yes		included in (XII)
Subtotal Non-Rate Base Deferrals Requested at January 1, 2010 Date of Transition:				\$ 29,890
Non-Rate Base Deferrals Previously Approved that would otherwise require Adjustment to Opening Retained Earnings at January 1, 2010:				
(XII)	Deferred Income Taxes	Yes	G-37-84 G-193-08	\$ 92,050
(XVIII)	Brilliant Terminal Station Capital Lease	Yes	G-2-04 G-193-08	\$ 5,090
(XIX)	Other Post-Retirement Benefits	Yes	G-52-05 G-193-08	\$ 3,536
(XX)	Trail Office Building Lease	Yes	G-41-93 G-193-08	\$ 1,249
Subtotal Non-Rate Base Deferrals Requested at January 1, 2010 Date of Transition:				\$ 101,925
Total Non-Rate Base Deferrals Requested at January 1, 2010 Date of Transition:				\$ 131,815
Non-Rate Base Deferrals Requested for Approval rather than as an Adjustment to Closing Retained Earnings at December 31, 2010:				
(IV)	Capitalization of Depreciation on Assets Used in Construction	Yes		\$ (3,700)
(VII)	Property, Plant and Equipment - Gains and Losses on Disposal of Assets	Yes		\$ 2,000
(VIII)	Customer Contributions Amortization Rate and Timing	Yes		\$ (510)
(X)	Depreciation Changes for Property, Plant & Equipment	Yes		\$ 7,500
(XI)	Depreciation of Major Inspections	Yes		\$ 160
Total Non-Rate Base Deferrals Requested for Year Ended December 31, 2010:				\$ 5,450

1

2 The estimated amounts above will likely differ from actual amounts due to factors previously
3 mentioned on page 5 of Appendix B, as well as the completion of an updated IFRS compliant
4 depreciation study before the end of 2009.

87.0 Reference: Exhibit B-1, Application, Appendix B, Accounting Changes, Non-Rate Base Deferral Accounts

On page 6, FortisBC is requesting a number of non-rate base deferral accounts be approved for 2010 with the recommendations for recognition and settlement to be proposed in the 2011 Revenue Requirements.

“The full impacts of transitioning to IFRS are expected to continue to be determined throughout 2010 and the Company will communicate these impacts to its stakeholders in its 2011 Revenue Requirements for further discussion and recommendation.” (Appendix B, p. 5)

“The above forecast amounts will likely differ from actual amounts...” (Appendix B, p. 6)

Q87.1 Given the above statements, it appears that there is a tremendous amount of speculation pertaining to not only the financial impact of IFRS but also the future developments of regulatory issues. Please then explain why it is appropriate for FortisBC to establish the proposed regulatory non-rate base deferral accounts “on the transition to IFRS in 2010” (Appendix B, p. 5).

A87.1 IFRS is fluid and there are many projects being undertaken by the International Accounting Standards Board (“IASB”). Some of these projects will result in a final standard in either the transition year of 2010 or the adoption year of 2011. The IASB Work Plan and Projected Timetable as at August 1, 2009 shows the current best estimate of document publication dates, including the publication of a Rate-regulated Activities standard in the second quarter of 2010.

In terms of regulatory issues, unlike Canadian GAAP, IFRS currently have no special standards or exemptions for rate-regulated operations. Without specific standards under IFRS to account for the specialized situations encountered in a rate-regulated environment, the transition to IFRS is particularly challenging to rate-regulated entities. As it stands now, there is no guidance to support the recognition of regulatory assets and liabilities.

The IASB started a project on accounting for the effects of rate-regulation in December 2008. The decision to add this project to their agenda of topics was due in large part to correspondence received from North American industry groups and rate-regulated utilities. IASB meetings were held throughout the first half of 2009, which resulted in the publication of an Exposure Draft on *Rate-regulated Activities* in July 2009. While this Exposure Draft is not a final accounting standard, it does indicate the views of the IASB on accounting in a rate-regulated environment and is the best indication of how a final standard on rate-regulated activities would

1 appear. Therefore, in the absence of evidence to the contrary, FortisBC has determined that this
2 Exposure Draft represents the final standard that is expected to be issued in 2010.

3 Rather than put the requirements of the Exposure Draft directly through 2010 customer rates,
4 FortisBC has requested specific regulatory approval to recognize certain Non-Rate Base
5 Deferral Accounts related to the identified differences in accounting between GAAP and IFRS.
6 The inclusion of these items in the 2010 Revenue Requirements assists in demonstrating that
7 the BCUC has provided formal approval of collection of the amounts in the future, which is
8 integral to recognizing deferrals for external financial reporting under the Exposure Draft.

9 **Q87.2 Assuming FortisBC adopts IFRS effective January 1, 2011 as required, and only the**
10 **preparation of comparative financial statements for 2010, please explain the logic and**
11 **appropriateness of settling up these non-rate base deferral accounts as requested?**

12 A87.2 As indicated in Appendix B, on page 2, lines 20 to 24, "the Company's January 1, 2011
13 changeover date to IFRS will require the restatement, for comparative purposes, of amounts
14 reported by the Company for the year ended December 31, 2010, and of amounts reported on
15 the Company's opening IFRS balance sheet as at the transition date of January 1, 2010." This
16 means that deferral amounts relating to the differences between current Canadian GAAP, which
17 is generally used for regulatory purposes, and current IFRS will begin accumulating starting on
18 January 1, 2010.

19 IFRS 1, *First-time Adoption of IFRS*, establishes the transition requirements for the preparation
20 of financial statements in accordance with IFRS for the first time. The general principle is that
21 IFRS are to be applied retrospectively to the opening IFRS balance sheet (January 1, 2010 for
22 FortisBC), the comparative period (year ending December 31, 2010 for FortisBC), and the
23 reporting period (year ending December 31, 2011 for FortisBC). Subject to certain exceptions
24 and exemptions, all differences identified that would have effected prior period earnings would
25 be recorded in opening retained earnings at January 1, 2010.

26 Rather than put the requirements of the Exposure Draft directly through 2010 customer rates,
27 FortisBC has requested specific regulatory approval to recognize certain Non-Rate Base
28 Deferral Accounts, both for the year ended December 31, 2010 and at the January 1, 2010 date
29 of transition, related to the identified differences in accounting between GAAP and IFRS. The
30 inclusion of these items in the 2010 Revenue Requirements assists in demonstrating that the

BCUC has provided formal approval of collection of the amounts in the future, which is integral to recognizing deferrals for external financial reporting under the Exposure Draft. The Company will propose recommendations for settling or unwinding these Non-Rate Base Deferral Accounts in the 2011 Revenue Requirements.

Q87.3 If the requested non-rate base deferral accounts are approved, please provide the journal entries for the regulated entity's regulatory schedules and the legal entity's financial statements.

A87.3 If the requested Non-Rate Base Deferral Accounts are approved, there are not anticipated to be any journal entries required in the Company's regulatory schedules at the time of answering this Information Request. However, in FortisBC's external financial statements prepared under IFRS beginning on January 1, 2010, the following adjustments are expected to be required (as referenced to the table included in Appendix B, page 6, stated in \$000's):

(IV) Capitalization of Depreciation on Assets Used in Construction

DR Assets Under Construction	\$3,700
CR Regulatory Liability	\$3,700

(VII) Property, Plant and Equipment - Gains and Losses on Disposal of Assets

DR Regulatory Asset	\$2,000
CR Property, Plant & Equipment	\$2,000

(VIII) Customer Contributions Amortization Rate and Timing

DR Property, Plant & Equipment	\$510
CR Regulatory Liability	\$510

(X) Depreciation Changes for Property, Plant & Equipment

DR Regulatory Asset	\$7,500
CR Property, Plant & Equipment	\$7,500

(XI) Depreciation of Major Inspections

DR Regulatory Asset	\$160
CR Property, Plant & Equipment	\$160

1	(XII)	<u>Deferred Income Taxes</u>	
2		DR Regulatory Asset	\$92,050
3		CR Deferred Income Tax Liability	\$92,050
4	(XIII)	<u>Pension and Employee Future Benefit Costs - Cumulative Unamortized Actuarial Gains and Losses Upon Transition</u>	
5			
6		DR Regulatory Asset	\$29,890
7		CR Employee Future Benefit Obligation	\$29,890
8	(XV)	<u>Pension and Employee Future Benefit Costs - Past Service Costs</u>	
9		Included in (XIII) above	
10	(XVII)	<u>Pension and Employee Future Benefit Costs - Measurement Date</u>	
11		Included in (XIII) above	
12	(XVIII)	<u>Brilliant Terminal Station Capital Lease</u>	
13		DR. Asset under Capital Lease	\$27,228
14		DR. Regulatory Asset	\$5,090
15		CR. Accumulated Depreciation	\$7,051
16		CR. Obligation under Capital Lease	\$25,267
17	(XIX)	<u>Other Post-Retirement Benefits</u>	
18		DR. Regulatory Asset	\$3,536
19		CR. Other Post Retirement Benefits liability	\$3,536
20	(XX)	<u>Trail Office Building Lease</u>	
21		DR. Regulatory Asset	\$1,249
22		CR. Other Long-Term Liabilities	\$1,249

23 **Q87.4 Please confirm that it is the Company's intention to request recovery in rates of this 2010**
 24 **activity in these deferral accounts commencing in 2011 and future years.**

25 A87.4 Not confirmed. The recognition and proposed settlement of the requested Non-Rate Base
 26 Deferral Accounts will be proposed in the 2011 Revenue Requirements. The initial approval for
 27 the recognition of these Non-Rate Base Deferral Accounts does not necessarily mean that

these amounts will be directly recovered in 2011 rates.

Q87.5 One of the statements on page 6 is “to minimize the impact to retained earnings”. Why should this impact be a recoverable cost from customers?

A87.5 The Non-Rate Base Deferral Accounts that have been requested represent timing differences between Canadian GAAP, which is generally used for regulatory purposes, and current IFRS. Under the accounting guidance of IFRS, the deferrals that represent regulatory assets at the January 1, 2010 date of transition (which are explained further in Q86.2) are indicative of costs that should have been recognized through net income under IFRS but have not yet been recovered from customers in rates.

Recognizing any adjustments for these regulatory assets or liabilities in retained earnings instead of in deferral accounts, which will be settled through rates in future periods, would eliminate the possibility of recovery of expenses that will eventually be recovered through Canadian GAAP. In other words, the existence of timing differences should not restrict the Company from recovering otherwise eligible costs from customers.

Q87.6 If the requested deferral accounts are not approved for 2010 as requested what negative financial impact does FortisBC anticipate?

A87.6 If the Non-Rate Base Deferral Accounts that have been requested are not approved, there will be no support to recognize the deferrals for external financial reporting under the Exposure Draft. As a result, the deferrals that are expected to exist at the January 1, 2010 date of transition (see Q86.2 for classification of deferral amounts) would be recognized through opening retained earnings at January 1, 2010, while the deferrals that are expected to arise during the year ended December 31, 2010 would impact net earnings under IFRS. This creates potential negative financial impacts including the adverse affect to debt covenants and debt issue coverage tests, risk of increased cost of debt due to unfavourable perception by rating agencies and increased costs associated with maintaining two sets of accounting records.

88.0 Reference: Exhibit B-1, Application, Appendix B, Accounting Changes

In Appendix B, there are many instances in which the following phrase was repeated:
“...determination will likely not be finalized until 2010, at which time a final IFRS standard on Rate-regulated Activities will have been issued and interpreted. Any unanticipated adjustments will be captured in a non-rate base IFRS transitional deferral account in 2010 and the recommendations for recognition and settlement will be proposed in the 2011 Revenue Requirements.

Q88.1 Please discuss the Company’s plans if the exposure draft is either i) not approved as a standard; or ii) not approved in time for FortisBC.

A88.1 If the Exposure Draft is not approved as a standard, there will be no explicit IFRS support to recognize any deferred charges currently recognized (Tab 3, Table 3.7.2) or proposed to be recognized (Tab 3, Table 3.8) in the 2010 Revenue Requirements. In addition, further items currently recognized in Property, Plant and Equipment that have not been requested for deferral are at risk of being derecognized (Appendix B, items I, II and III). This is because unlike Canadian GAAP, IFRS currently have no special standards or exemptions for rate-regulated activities. Therefore, there is no guidance to support the recognition of regulatory assets and liabilities under IFRS.

In the absence of an IFRS standard in accounting for rate-regulated activities, the deferrals that are expected to exist at the date of transition to IFRS would be recognized through opening retained earnings at January 1, 2010, while the deferrals that are expected to arise during the year would impact net earnings under IFRS. The Company would be required to track accounting differences and develop a strategy for recovery of the amounts derecognized under IFRS. In the absence of an approved and timely issued IFRS standard, the Company will discuss the potential impacts with stakeholders who are involved in any debt covenants, debt issue coverage tests and rating agency evaluations.

Q88.2 If the Exposure Draft on Rate-regulated activities (“Exposure Draft”) described on page 4 does not become a final standard, does FortisBC intend to maintain two sets of books to continue the use of regulatory deferral accounts?

A88.2 As explained in Q88.1, FortisBC would be required to track accounting differences and develop a strategy for recovery of deferral accounts. Since all regulatory deferral accounts would be derecognized under IFRS, the amounts would need to be maintained in a second set of books in order to be tracked for recovery in future customer rates.

Q88.3 Have lenders provided the Company with an indication of their willingness to modify debt covenants in the event that the Exposure Draft does not become a standard?

A88.3 Lenders have not yet provided the Company with an indication of their willingness to modify debt covenants in the event that the Exposure Draft does not become a standard. If all regulatory assets and liabilities were required to be derecognized upon transition to IFRS due to the absence of a rate-regulated standard, then the Company does not expect that it would immediately be offside of its debt covenants as they stand today. Subsequent to IFRS transition and going forward under IFRS, the volatility to earnings would be expected to increase and potentially adversely impact debt covenants over the long-term. At this point in time, there is still much uncertainty surrounding the interpretation of the Exposure Draft, comments from international stakeholders and accounting firms are yet to be submitted and considered, and the specifics of a final standard on accounting for rate-regulated activities under IFRS is still unknown. As a result, it is premature to determine what effects will result from a final accounting standard and therefore it is not yet appropriate to discuss modification of debt covenants with the lenders.

89.0 Reference: Exhibit B-1, Application, Appendix B, Accounting Changes, subsection i, Property, Plant and Equipment ("PPE") Valuation, p.7

"While there currently may not be any retained earnings adjustments expected as a result of the initial adoption of IFRS as it relates to PP&E, any unanticipated adjustments will be captured in a nonrated base IFRS transitional deferral account in 2010..." (Appendix B, p.7)

Q89.1 Please clarify whether any assessment of the fair value of PP&E has been made. Please compare the anticipated fair value of the assets to the carrying value of the assets.

A89.1 No formal assessment of the fair value of Property, Plant and Equipment has been made under IFRS. However, when assessing the impairment of assets under IFRS guidance the recoverable amount of an asset needs to be determined. The recoverable amount is defined as the higher of either the asset's "fair value less costs to sell" or its "value in use". It is not always necessary to determine both amounts since if either exceeds the asset's carrying amount, the asset is not impaired. Determining the "value in use" of an asset involves estimating the future cash flows to be derived from continuing use of the asset and applying an appropriate discount rate to those cash flows.

By definition, "value in use" is the present value of the future cash flows expected to be derived from an asset. This necessarily requires estimates of the future cash flows associated with the asset in question and the discount rate to apply to the cash flow stream in order to derive its present value. There is a strong argument to use the regulated rate of return as the discount rate. Therefore, if the cost of an asset is recoverable through rates, and it earns a return at the regulated rate of return which is also used as the discount rate, the present value of the asset should equal its cost. Therefore the argument supports that there would be no significant difference between the fair value and the carrying value of FortisBC's regulated property, plant and equipment.

Q89.2 Please identify if there are any non-standard balances in PPE that does not relates to physical assets.

Q89.2 There are no non-standard balances in Property, Plant and Equipment. However, for external financial statement purposes FortisBC classifies Land Rights and Computer Software as intangible assets. For regulatory purposes, these items are classified as part of Property, Plant and Equipment.

Q89.3 Please identify the amount of spare parts inventory and describe FortisBC's intentions on the treatment of depreciation on spare parts upon adopting IFRS.

Q89.3 FortisBC's spare part inventory is generally composed of Transformers in Stores, which were projected to be \$3.988 million in the 2010 Revenue Requirements and Meters in Stores, which were projected to be \$1.089 million in the 2010 Revenue Requirements.

Based on the Company's interpretation of the IFRS standards relating to spare part inventory and its application to our Company, FortisBC believes that there will be no change in treatment upon adoption of IFRS. Accounting guidance under both Canadian GAAP, which is generally used for regulatory purposes, and current IFRS is very similar with respect to the depreciation of assets. However, the threshold for commencing depreciation is higher under Canadian GAAP than it is for IFRS. In other words, an asset merely needs to be "available" for use under IFRS in order for it to be depreciated (IAS 16 par. 55); whereas under Canadian GAAP an asset is normally placed in service before it is depreciated (CICA 3061 par. 24). Since FortisBC considers its spare part inventory available for use, depreciation will continue to be recorded under IFRS.

90.0 Reference: Exhibit B-1, Application, Appendix B, Accounting Changes, subsection vii, Property, Plant and Equipment – Gains and Losses on Disposal of Assets, p.9

“It is estimated that losses incurred on disposal of assets during 2010 will be approximately \$2.0 million. As a result, FortisBC is requesting approval to record gains and losses recognized on disposition or retirement of PP&E in 2010 in a non-rate base deferral account” (Appendix B, p.7)

Q90.1 Please describe FortisBC’s current treatment in the accounting for gains and losses on asset disposal.

A90.1 FortisBC currently depreciates the majority of its assets using the Average Service Life (“ASL”) depreciation method, which is a form of depreciation for mass property accounting. In the ASL procedure, the rate of annual depreciation is based on the average service life of the mass property group, and this rate is applied to the remaining balance of the group’s cost. A characteristic of this procedure is that the cost of plant retired prior to the average service life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to the average service life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to the average service life is balanced by the cost recouped subsequent to the average service life.

Under this method, an asset retired prior to the average service life of the group results in a loss since the asset would have a carrying value but has been taken out of service. The loss, or remaining net book value, is closed to accumulated depreciation to account for the early retirement. Similarly, when an asset lasts longer than the average service life of the group and is subsequently retired, it results in a gain since its net book value will be negative from being over-depreciated. This gain is closed to accumulated depreciation to account for the late retirement.

Q90.2 Please explain whether the anticipated losses on asset disposal is related to the current depreciation rates. If not, please explain.

A90.2 The anticipated losses on asset disposal are related to depreciation rates to be used under IFRS. For regulatory purposes in the near-term, FortisBC is proposing to continue the treatment of accounting for gains and losses on asset disposal as explained in Q90.1. Under IFRS, the gain or loss arising from the derecognition of an asset is required to be recognized in profit or loss. FortisBC plans to separate the gain or loss from accumulated depreciation and accumulate in a Non-Rate Base Deferral Account in Tab 4, Schedule 1A, for which recognition has been requested for approval.

Q90.3 How does FortisBC plan on disposing this non-rate base deferral account? What is the proposed amortization period? Who will ultimately be responsible for this loss and why.

A90.3 Disposition for settlement of this deferral will be proposed in the 2011 Revenue Requirements. FortisBC believes the deferred losses on disposal that are being proposed as a Non-Rate Base Deferral Account in Tab 4, Schedule 1A are eligible costs to be recovered from customers. Different forces of retirement exist that will cause experience adjustments to occur (e.g. a vehicle accident forcing a distribution pole, expected to last 45 years, to be taken out of service one year after it was installed). As with all items of property, plant and equipment the Company should be allowed to recover its investment in capital. Losses on disposal represent the existence of adjustments that arise due to a difference between the actual life and estimated life of an asset. The deferral therefore represents unrecovered capital costs, just the same as any other rate base asset.

91.0 Reference: Exhibit B-1, Application, Appendix B, Accounting Changes, subsection ix, Constructive and Asset Retirement Obligation, p.11 and Tab 4, Table 1-C, p.13

“...because FortisBC’s network is essentially operated in perpetuity, the date upon which it will be taken out of service is generally not determinable. Therefore the present value of that obligation should be immaterial.” (Appendix B, p.11)

Q91.1 Please provide financial calculations to justify the above statement.

A91.1 Prior to providing the financial calculations to justify the above statement, it is necessary to explain how the assumptions were developed. During the interpretation of International Accounting Standard 37 (“IAS 37”) *Provisions, Contingent Liabilities and Contingent Assets*, FortisBC recognized that it’s most significant assets, including hydro electric generation, transmission and distribution assets are essentially operated into perpetuity.

A constructive obligation arises with respect to decommissioning costs, and a utility is therefore required to recognize that obligation, only when the network of inter-related assets is specifically identified to be decommissioned. In the case of interim component replacements made over the course of the networks useful life, the cost of removing and replacing these components does not represent a provision to be recognized in accordance with IAS 37. FortisBC is of the position that these costs should be expensed, as part of day-to-servicing, or capitalized, as part of the replacement cost, depending on the regulatory treatment. The interpretation of this position, based on how IAS 37 stands today, has been accepted by the Company’s external auditors and appears to be consistent with many utilities’ interpretation, not only in Canada, but also in Europe where IFRS has already been adopted.

The Company regularly refurbishes life extension to its assets; therefore there is the expectation to continue operating these assets on a perpetual basis. As such, the related present value of the obligation cannot be reasonably estimated as the settlement date is indeterminate, the method of settlement is unknown, and sufficient information is not available to apply a detailed expected present value technique. Because the question specifically asks for financial calculations, the Company must deviate from the perpetuity concept that is so integral to the nature its assets and can only provide an example of a calculation using finite numbers and assumptions that may not be reflective of what is actually expected to occur. The assumptions are as follows.

The Company recognizes that because certain of its assets have already operated for significant periods of time, the concept of perpetuity has been replaced with a finite number of

an assumed 150 years for example purposes only.

The calculation assumes that market price for the cost to remove the assets out of service entirely is 30% of the original cost of those assets.

The calculation also assumes that the discount rate is equal to a nominal 10% rate.

Example of Present Value of Obligation

<u>Assumptions:</u>	
Forecast 2009 cost of Generation Assets	\$ 171,710,000
Estimated market price to remove assets assuming it costs 30% of the cost	\$ 51,513,000
Annual inflation rate on costs to remove asset	2%
Discount rate: The assumed rate used for this example is FortisBC's 20 year Average Weighted Average Cost of Capital.	10%

Years Remaining	Market Price	Inflation Rate	Future Value	Discount Rate	Present Value
150	\$ 51,513,000	2.0%	\$1,004,483,037	10.00%	\$621

The calculation shows that the present value of the obligation is immaterial.

Q91.2 Does FortisBC's current depreciate rates include a net salvage component? If so, please recalculate Table 1-C (Tab 4, p.13) for both 2009 and 2010, breaking out the depreciation rate pertaining to asset life and the portion pertaining to net salvage. If not, please describe the Company's treatment for costs pertaining to the eventual salvage of plant facilities.

A91.2 Yes, FortisBC's forecast depreciation rates, which have been agreed upon as part of the 2006 NSA, include an estimated net salvage component. The last depreciation study used to establish the current depreciation rates was completed in 2005 by Gannett Fleming and estimated a net salvage component. The study used plant in service data as at December 31, 2004. The final depreciation rates for certain asset classes were negotiated as part of the 2006 NSA. In order to estimate a more accurate net salvage rate it will be necessary to obtain an updated depreciation study.

The next two tables show the forecast depreciation expense for 2009 and 2010 without the net salvage component. In 2009 and 2010 the net salvage component that is included in depreciation expense is estimated to be approximately \$7.7 million and \$8.5 million

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1 respectively. The net salvage accrual is drawn down by the actual costs of removal each year.

Table I - C (2009)
Accumulated Provision for Depreciation and Amortization
For the Year Ending December 31, 2009

Account	Acc. Prov. For Depreciation	Deprec.	Asset Balance	Depreciation Expense	Charges less	Acc. Prov. For Depreciation	Depreciation Expense with no Net Salvage	Net Salvage Accrual
	Dec. 31, 2008	Rate	Dec. 31, 2008	Dec. 31, 2009	Recoveries	Dec. 31, 2009	Dec. 31, 2009	Dec. 31, 2009
				(000s)				
Hydraulic Production Plant								
330 Land Rights	(735)	2.6%	847	22	-	(713)	22	-
331 Structures and Improvements	4,666	1.2%	11,280	135	(51)	4,750	115	20
332 Reservoirs, Dams and Waterways	3,133	1.7%	21,040	359	(200)	3,292	318	41
333 Water Wheels, Turbines & Generators	3,825	2.2%	56,545	1,247	(914)	4,158	827	421
334 Accessory Electrical Equipment	7,532	2.4%	22,911	552	(281)	7,802	378	174
335 Other Power Plant Equipment	7,175	2.3%	38,349	884	(84)	7,975	833	51
336 Roads, Railroads, and Bridges	216	1.4%	1,053	15	-	231	15	-
	<u>25,811</u>	<u>2.1%</u>	<u>152,024</u>	<u>3,215</u>	<u>(1,530)</u>	<u>27,496</u>	<u>2,508</u>	<u>707</u>
Transmission Plant								
350 Land Rights - R/W	(72)	0.0%	7,079	-	-	(72)	-	-
350.1 Land Rights - Clearing	1,023	1.6%	4,496	72	-	1,095	72	-
353 Station Equipment	25,996	3.0%	167,529	5,040	(1,428)	29,608	3,999	1,041
355 Poles Towers & Fixtures	15,779	3.0%	74,499	2,241	(587)	17,433	1,408	834
356 Conductors and Devices	12,183	3.0%	71,955	2,165	(551)	13,798	1,396	769
359 Roads and Trails	33	2.9%	817	24	(14)	43	24	-
	<u>54,942</u>	<u>2.9%</u>	<u>326,374</u>	<u>9,542</u>	<u>(2,580)</u>	<u>61,904</u>	<u>6,899</u>	<u>2,644</u>
Distribution Plant								
360 Land Rights - R/W	-	0.0%	2,986	-	-	-	-	-
360.1 Land Rights - Clearing	402	2.1%	7,106	149	-	552	149	-
362 Station Equipment	28,594	3.0%	116,942	3,518	(73)	32,039	2,282	1,236
364 Poles Towers & Fixtures	33,001	3.0%	114,210	3,435	(474)	35,962	2,170	1,265
365 Conductors and Devices	47,185	3.0%	186,542	5,611	(682)	52,114	4,158	1,454
368 Line Transformers	15,530	2.9%	88,933	2,586	(1,503)	16,613	1,979	607
369 Services	6,439	0.0%	7,292	-	-	6,439	-	-
370 Meters	4,857	3.5%	13,189	463	(304)	5,017	463	-
371 Installation on Customers' Premises	985	0.0%	5,336	-	(29)	956	-	-
373 Street Lighting and Signal Systems	1,600	2.4%	7,272	175	(46)	1,730	142	34
	<u>138,594</u>	<u>2.9%</u>	<u>549,806</u>	<u>15,939</u>	<u>(3,111)</u>	<u>151,422</u>	<u>11,343</u>	<u>4,596</u>
General Plant								
389 Land	(11)	0.0%	5,800	-	-	(11)	-	-
390 Structures - Frame & Iron	531	0.8%	337	3	-	534	3	-
390.1 Structures - Masonry	2,992	3.0%	21,293	641	(16)	3,617	641	-
391 Office Furniture & Equipment	3,547	7.5%	5,596	421	(14)	3,954	421	-
391.1 Computer Equipment	30,118	10.6%	50,977	5,419	(236)	35,301	5,419	-
392 Transportation Equipment	2,941	0.4%	16,563	66	(1,535)	1,472	349	(283)
394 Tools and Work Equipment	5,607	9.5%	10,566	1,007	(7)	6,607	1,007	-
397 Communication Structures and Equipment	5,936	6.0%	22,880	1,377	(28)	7,285	1,377	-
	<u>51,661</u>	<u>6.7%</u>	<u>134,012</u>	<u>8,934</u>	<u>(1,836)</u>	<u>58,758</u>	<u>9,217</u>	<u>(283)</u>
108 Total Accumulated Depreciation	271,008	3.2%	1,162,217	37,629	(9,056)	299,581	29,966	7,663
Deduct - Portion of CIAC Depreciated	-			(3,657)				
403 Depreciation Expense				33,972				
Other								
114 Utility Plant Acquisition Adjustment	4,652		11,912	186		4,838		
390 Leasehold Improvements	1,645		3,240	389		2,034		
Rate Stabilization Adjustment	(2,176)	10.0%		311		(1,865)		
Manual entry for buy out of lease	-					-		
Total Accumulated Amortization	<u>4,121</u>			<u>886</u>		<u>5,006</u>		
Accumulated Amortization per Balance Sheet	<u>275,128</u>			<u>34,858</u>		<u>304,587</u>		

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Requestor Name: British Columbia Utilities Commission
Information Request No: 1
Request Date: October 16, 2009
Response Date: October 30, 2009

Table I - C (2010)
Accumulated Provision for Depreciation and Amortization
For the Year Ending December 31, 2010

Account	Acc. Prov. For Depreciation	Deprec.	Asset Balance	Depreciation Expense	Charges less	Acc. Prov. For Depreciation	Depreciation Expense with no Net Salvage	Net Salvage Accrual
	Dec. 31, 2009 (000s)	Rate	Dec. 31, 2009	Dec. 31, 2010	Recoveries	Dec. 31, 2010	Dec. 31, 2010	Dec. 31, 2010
Hydraulic Production Plant 2,3, & 4 Plant								
330 Land Rights	(713)	2.6%	847	22	-	(691)	22	-
331 Structures and Improvements	4,750	1.2%	12,173	146	(13)	4,883	125	21
332 Reservoirs, Dams and Waterways	3,292	1.7%	24,495	416	(183)	3,524	373	43
333 Water Wheels, Turbines & Generators	4,158	2.2%	69,332	1,525	(1,034)	4,649	995	530
334 Accessory Electrical Equipment	7,802	2.4%	25,217	605	(238)	8,169	422	183
335 Other Power Plant Equipment	7,975	2.3%	39,270	903	(33)	8,845	850	53
336 Roads, Railroads, and Bridges	231	1.4%	1,053	15	-	246	15	-
	<u>27,496</u>	<u>2.1%</u>	<u>172,388</u>	<u>3,632</u>	<u>(1,502)</u>	<u>29,626</u>	<u>2,802</u>	<u>830</u>
Transmission Plant								
350 Land Rights - R/W	(72)	0.0%	7,646	-	-	(72)	-	-
350.1 Land Rights - Clearing	1,095	1.6%	5,063	81	-	1,176	81	-
353 Station Equipment	29,608	3.0%	197,247	5,917	(1,977)	33,548	4,373	1,544
355 Poles Towers & Fixtures	17,433	3.0%	86,389	2,592	(804)	19,221	1,594	998
356 Conductors and Devices	13,798	3.0%	83,416	2,502	(532)	15,767	1,564	938
359 Roads and Trails	43	2.9%	1,101	32	(13)	62	32	-
	<u>61,904</u>	<u>2.9%</u>	<u>380,863</u>	<u>11,124</u>	<u>(3,326)</u>	<u>69,702</u>	<u>7,644</u>	<u>3,480</u>
Distribution Plant								
360 Land Rights - R/W	-	0.0%	3,950	-	-	-	-	-
360.1 Land Rights - Clearing	552	2.1%	8,070	169	-	721	169	-
362 Station Equipment	32,039	3.0%	116,868	3,506	(73)	35,472	2,481	1,025
364 Poles Towers & Fixtures	35,962	3.0%	125,452	3,764	(550)	39,176	2,412	1,352
365 Conductors and Devices	52,114	3.0%	195,073	5,852	(731)	57,235	4,363	1,489
368 Line Transformers	16,613	2.9%	91,447	2,652	(1,525)	17,741	2,031	621
369 Services	6,439	0.0%	7,292	-	-	6,439	-	-
370 Meters	5,017	3.5%	13,480	472	(307)	5,182	472	-
371 Installation on Customers' Premises	956	0.0%	8,116	-	(43)	913	-	-
373 Street Lighting and Signal Systems	1,730	2.4%	7,226	173	(46)	1,857	144	29
	<u>151,422</u>	<u>2.9%</u>	<u>576,973</u>	<u>16,588</u>	<u>(3,275)</u>	<u>164,736</u>	<u>12,073</u>	<u>4,515</u>
General Plant								
389 Land	(11)	0.0%	5,800	-	-	(11)	-	-
390 Structures - Frame & Iron	534	0.8%	337	3	-	537	3	-
390.1 Structures - Masonry	3,617	3.0%	22,476	674	(2)	4,289	674	-
391 Office Furniture & Equipment	3,954	7.5%	6,748	506	(3)	4,457	506	-
391.1 Computer Equipment	35,301	10.6%	56,870	6,028	(177)	41,152	6,028	-
392 Transportation Equipment	1,472	0.4%	17,052	68	(1,516)	24	359	(291)
394 Tools and Work Equipment	6,607	9.5%	11,181	1,062	(1)	7,667	1,062	-
397 Communication Structures and Equipment	7,285	6.0%	25,213	1,513	(7)	8,790	1,513	-
	<u>58,758</u>	<u>6.8%</u>	<u>145,677</u>	<u>9,854</u>	<u>(1,707)</u>	<u>66,904</u>	<u>10,145</u>	<u>(291)</u>
108 Total Accumulated Depreciation	299,581	3.2%	1,275,901	41,198	(9,810)	330,968	<u>32,665</u>	<u>8,533</u>
Deduct - Portion of CIAC Depreciated	-			(3,852)				
403 Depreciation Expense				37,346				
Other								
114 Utility Plant Acquisition Adjustment	4,838		11,912	186		5,024		
390 Leasehold Improvements	2,034		3,382	406		2,440		
Rate Stabilization Adjustment	(1,865)	10.0%		311		(1,554)		
Manual entry for buy out of lease	-					-		
Total Accumulated Amortization	<u>5,006</u>			<u>903</u>		<u>5,909</u>		
Accumulated Amortization per Balance Sheet	<u>304,587</u>			<u>38,249</u>		<u>336,877</u>		

92.0 Reference: Exhibit B-1, Application, Appendix C, Affiliate Transactions Report, Section B, List of Affiliates with Whom FortisBC Transacted Business, pp.3-14

“The following is a list of all Services Agreements in effect during the Reporting Period:

a. Shared Services Agreement between FortisBC Inc. and FortisAlberta Inc. dated January 1, 2006; and

b. Property Tax Shared Services Agreement between FortisBC Inc., and Terasen Gas Inc. dated May 1, 2008.”(Appendix C, p.10)

Q92.1 Please file a copy of these agreements to the Commission.

A92.1 The agreements are attached as Appendices BCUC 92.1A and BCUC 92.1B. Appendix BCUC 92.1B contains the 2009 Shared Services Agreement between FortisBC Inc. and FortisAlberta Inc. that replaced the 2006 Agreement.

Q92.2 Please identify any other Transfer Pricing or Affiliate Transaction agreements between FortisBC and all transacted parties for 2008, 2009, and 2010.

A92.2 Please see the Appendices BCUC 92.2A and BCUC 92.2B which contain copies of the Terasen Inc. - Executive Services Agreement and the Terasen Inc. - Insurance Services Agreement in effect at the time of this response. Although FortisBC does not anticipate entering into any other Transfer Pricing or Affiliate Transaction agreements, the Company is unable to identify all the agreements it may enter into in 2010.

Q92.3 Please confirm that all affiliate transactions between FortisBC and FortisAlberta and also between FortisBC and Terasen Gas Inc. are in accordance with these agreements. If not, why not.

A92.3 Confirmed.

Q92.4 Please explain the basis of accounting for affiliate transactions with the following parties.

Are the transfer prices based on an agreed upon amount or based on fair value? Please provide a description of the rationale for the establishment of each transfer price.

- **Fortis Inc.**
- **FortisAlberta Inc.**
- **Newfoundland Power Inc.**
- **Terasen Inc.**
- **Terasen Gas Inc.**
- **FortisOntario Inc.**
- **Fortis Properties Inc.**
- **Fortis Pacific Holdings Inc.**
- **Walden Power Partnership**

A92.4 The pricing for affiliate transactions is noted beside each entity. A reference to “Transfer Pricing Policy” is a reference to FortisBC’s Revised Code of Conduct and Transfer Pricing Policy as filed with the BCUC March 31, 2009. Reference to “Shared Services Agreement” means the agreements listed in Section C of Appendix C, page 10 of FortisBC’s Preliminary 2010 Revenue Requirements application. Transfer Pricing Policy is based on a cost recovery plus a profit margin. The Shared Services Agreement with Terasen Gas Inc. is based on Terasen’s Transfer Pricing Policy that is also based on cost recovery model. The Shared Services Agreement with FortisAlberta is also priced on a cost recovery basis.

Fortis Inc. – Transfer Pricing Policy
FortisAlberta Inc. - Shared Services Agreement
Newfoundland Power Inc. - Transfer Pricing Policy
Terasen Inc. - Transfer Pricing Policy
Terasen Gas Inc. - Shared Services Agreement
FortisOntario Inc. - Transfer Pricing Policy
Fortis Properties Inc. - Transfer Pricing Policy
Fortis Pacific Holdings Inc. - Transfer Pricing Policy
Walden Power Partnership - Transfer Pricing Policy

Q92.5 If there are no agreements in place for affiliate transactions with the above parties, then please describe the approval process for these transactions.

A92.5 Cost sharing arrangements are agreed to by the respective parties prior to the payment for goods or services. FortisBC compares the cost to market (if available) to ensure that the price is the lower of cost or market.

Q92.6 From the list of transacted affiliates in the above question, please identify which affiliates are regulated entities and which are non-regulated.

A92.6 Fortis Inc. – Non Regulated
FortisAlberta Inc. – Regulated by the Alberta Energy Utilities Board
Newfoundland Power Inc. – Regulated by the Newfoundland and Labrador Board of Commissioners of Public Utilities
Terasen Inc. – Non Regulated
Terasen Gas Inc. – Regulated by the BCUC
FortisOntario Inc. – Regulated by the Ontario Energy Board
Fortis Properties Inc. – Non Regulated
Fortis Pacific Holdings Inc. – Non Regulated
Walden Power Partnership – Non Regulated

93.0 Reference: Exhibit B-1, Application, Appendix C, Affiliate Transactions Report, Section D, Affiliate Party Transaction Summary, p. 13

Q93.1 Please provide a breakdown (by expense type or by transaction) of the 2008 subcontractor services charge of \$5,626,000. Clearly identify the loading amounts.

A93.1

	(\$000s)		
Description	2008	2007	2006
Labour/vehicle charges	3,030	3,577	2,562
Materials issue from inventory	986	1,754	822
Absorption costing	660	387	268
Transfer price (Profit Margin)	516	660	398
Transfer price (G&A Overhead)	51	18	36
Finance/admin charges	199	143	95
Vendor invoices	162	125	125
Miscellaneous	22	117	(40)
Total	5,626	6,781	4,266

Loadings on labour, vehicles and material are imbedded in the amount and cannot be easily broken out.

Absorption costing is an overhead loading associated with the Teck Resources and the Brilliant Power Corporation contracts.

Q93.2 Please provide the budgeted and actual charges for subcontractor services to Fortis Pacific Holdings Inc. (FPHI) in 2006-2008, broken down by the same category as provided in the above question. Please explain all variances that are greater than 10%?

A93.2 The Company does not budget for affiliate subcontractor services to FPHI at the resource level as provided in the response to BCUC IR1 Q93.1 above so is unable to provide a variance analysis.

Q93.3 What is the forecast for subcontractor services to FPHI in 2009 and 2010?

A93.3 The Company does not forecast the amount of expenses that will be transfer priced to FPHI. The transfer price amounts represent the amount of work performed by FortisBC, not the total amount of work. Work that is contracted out is not included in transfer priced amounts.

Q93.4 Please provide a copy of the Subcontractor Agreement to the Commission. Please discuss how the transfer pricing is determined and approved. Please discuss, on a high level, the rationale behind the transfer pricing.

A93.4 There is no single "Subcontractor Agreement". Fortis Pacific Holdings Ltd. has entered into contractual agreements with the City of Kelowna, Brilliant Expansion Power Corporation and Arrow Lakes Power Company. The services performed pursuant to the NRB contractual agreements are subcontracted by Fortis Pacific Holdings Ltd. to FortisBC and performed by FortisBC. The services are provided according to FortisBC's Revised Code of Conduct and Transfer Pricing Policy as filed with and approved by the BCUC in 1998.

FortisBC's Transfer Pricing follows the principles established by the Commission in its 1997 guidance titled "Retail Markets Downstream of the Utility Meter Guidelines". Those guidelines provide that Transfer Pricing should fully recover costs and if the service could be obtained by the NRB by an independent supplier that the price paid by the NRB should not be less than the competitive market price.

Q93.5 If the transfer pricing is not based on market pricing, why not?

A93.5 FortisBC acquires its resources from a competitive marketplace and therefore its cost of labour, material, equipment and services is market comparable. Transfer pricing is meant to be a proxy for market pricing by ensuring full cost recovery

Q93.6 Does the transfer pricing on subcontractor services include an overhead mark-up (loading factor) to compensate FortisBC for training and development, scheduling, human resource services, and benefits? Is this market-up comparable to market rates for similar services?

A93.6 Yes, an allocation for General and Administrative Overhead is included in transfer pricing to compensate FortisBC for among other things; training and development, scheduling and human resource services. There is an additional loading to recover the cost of benefits. The mark-up reflects full cost recovery and is comparable to market rates.

Q93.7 What is the ratio of the number of subcontractors designated for FPHI to the total employee headcount in FortisBC?

A93.7 FortisBC understands the question to be "What is the ratio of the number of employees designated for FPHI to the total employee headcount in FortisBC?". Table 93.7 below provides the requested information for 2008.

Table BCUC 93.7

	Head count	Cost	Hours	FTE
Supervision and Management	23	438,090	4,116	2.5
Engineering	12	92,563	1,073	0.7
Total Exempt	35	530,654	5,189	3.2
COPE				
Finance	3	82,296	511	0.3
Customer Service	1	10	0	0.0
SCM (Buyers/Contract Specialists)	4	7,890	153	0.1
Designers/Design Group	9	58,826	984	0.6
Project Coordinators	3	15,161	300	0.2
Dispatch Coordinator	1	13,470	323	0.2
IT Tech	1	13,001	215	0.1
Eng. Asst	1	378	8	0.0
P&C Technologist	1	1,330	22	0.0
Sr AM/FM Data Tech	1	484	8	0.0
Tech Draftsperson	5	24,113	275	0.2
Admin Asst	5	102,342	1,439	0.9
Total COPE	35	319,301	4,236	2.6
IBEW				
CPC Tech	6	29,590	451	0.3
Equip Operators	4	77,078	1,192	0.7
Helper	8	25,225	444	0.3
Floorman	2	1,444	27	0.0
Journeyman and/or PLT	86	1,898,082	22,973	14.0
Labourer	3	66,725	1,005	0.6
Super Journeyman	5	27,309	276	0.2
Apprentices	12	23,015	434	0.3
Total IBEW	126	2,148,468	26,801	16.3
TOTAL	196	2,998,423	36,227	22.0

Q93.8 How does FortisBC select individuals to be subcontracted out to affiliates?

A93.8 FortisBC engages in an extensive work planning process each year. Employees are assigned to regulated and non-regulated projects depending on their specific skill sets and the requirements of that project. The needs of the regulated business are considered in all resourcing decisions. The Company makes every effort to ensure that all crews have a proper mix of skills and experience to perform work in the most efficient manner.

Q93.9 Please discuss, in general, how the Company can ensure that the subcontractors servicing a non-regulated business segment can be assured that their costs are properly transferred to that non-regulated business, essentially linking cost with causation.

A93.9 All costs are compiled and those costs that are incurred in order to support a NRB are identified as a matter of course during FortisBC's annual budget process. Budgets are established as part of an annual, company-wide process for all departments. Each department manager is responsible for determining their departmental budget. During this process, managers determine costs and cost causation. Therefore, costs incurred in order to support a NRB are identified and separated. At the end of the process, budgets are ultimately approved by the appropriate Vice President.

Q93.10 Please discuss on a high level, whether FortisBC can confirm that regulated ratepayers are not unduly impacted by the subcontractor services provided to FPHI.

A93.10 Confirmed. If FortisBC were to discontinue all non-regulated third party work (related to the Brilliant Expansion, Arrow Lakes Hydro and the City of Kelowna subcontracts) the overall revenue impact would increase by approximately \$ 0.9 million with a corresponding rate impact of 0.4 percent.

Please also see the response to BCUC IR1 Q93.9.

Q93.11 Please discuss on a high level, how the Company can ensure that regulated assets (plant and equipment) are not unduly impacted by the subcontractor services provided to FPHI.

A93.11 FortisBC ensures that its regulated assets are not unduly impacted by the subcontractor services provided to FPHI by ensuring cost recovery where the assets are used to perform work for the NRB, and indemnification by FPHI for losses incurred by the regulated business in performing the services.

Q93.12 Please provide a reconciliation of the following 2008 amounts. Please explain why the amount being “charged to” FPHI is different than the amount being recognized in “other income” for FortisBC.

- **Other Income: Fortis Pacific Holding Inc. \$516,000 (Tab 4, Table 2-G-Other Income, p. 24, Line 13)**
- **Affiliate Transactions charged to FPHI \$5,651,000 (Appendix C, #8, p. 13)**

A93.12 Other Income: Fortis Pacific Holdings Inc. – This is the 10% transfer price profit margin revenue earned by the regulated company and charged to FPHI the non-regulated business for the use of FortisBC resources.

Affiliate Transactions - are all affiliate transactions charged to FPHI including transfer price, inventory, labour, vehicles, etc.

Q93.13 Please provide the 2009 and 2010 forecasts for sub-contractors services to FPHI.

A93.13 Please refer to the response to BCUC IR1 Q93.3.

94.0 Reference: Exhibit B-1, Application, Appendix D, O&M Savings Report, Table A, pp. 5-7

A primary purpose of the O&M Savings Report is to compare the actual O&M savings from CPCN projects to that the forecast by FortisBC at the time of the CPCN approval to determine if the forecast savings were actually realized.

Q94.1 For the projects identified in Table A, please show the annual forecast O&M savings at the time of CPCN approval along with the actual realized savings for each year.

A94.1

Reference Line	Capital Project	Comments
20	Vehicle Lease Buy-Out	Estimates shown in Appendix D were based on known lease costs, therefore actual savings are the same as estimates.
19	AM/FM/GIS	The CPCN application forecast increased costs of \$150,000 to \$170,000 annually. The program was implemented without any incremental costs.
18	SAP Upgrade	This line item was based on a preliminary project proposal that was not undertaken, and was included in the report in error. Therefore there were no associated savings or costs.
12 - 17	ULE Projects	Estimates reflect savings of \$200,000 for each project for avoided plant maintenance, \$100,000 in the year of the life extension and \$100,000 in the year following. The cost of a representative units avoided annual electrical and mechanical inspections and preventative maintenance is estimated to be \$102,000.
7	Distribution Substation Automation	Please see the responses to Q96.1 and 96.2 below.
Others	Substation Projects	The identified savings are based on best estimates of operating and maintenance costs for added or decommissioned plant, primarily substations. These costs are estimated to be in the order of \$20,000 annually.

Q94.2 Please provide a comparison to actual O&M impacts on a project by project basis for 2008, 2009 and 2010.

A94.2 Please see the response to Q94.1 above.

95.0 Reference: Exhibit B-1, Application, Appendix D, O&M Savings Report, Table A, AM/FM/GIS project, p. 7

Q95.1 Please provide the rationale from the original CPCN application to support the increased O&M costs associated with the AM/FM/GIS project, and explain if these increases were net of savings for improved field crew efficiency and foregone support of the previous system. Please include the relevant passages from the original CPCN application.

A95.1 The excerpt from the Revenue Requirements Analysis in the CPCN application details the operating cost impact (values in O&M Savings Report were rounded for consistency with previous filings).

Line No.	NPV @ 10.00%	0 Dec-06	1 Dec-07	2 Dec-08	3 Dec-09	4 Dec-10	6 Dec-12	8 Dec-14	10 Dec-16	12 Dec-18
<u>Annual Operating Costs / (Savings)</u>										
37 Software Fees and Maintenance	293	75	76	78	79	81	84	87	91	94
38 Hardware Maintenance		10	10	10	11	11	11	12	12	13
39 Customization Costs	212	54	55	56	57	58	61	63	66	68
40 Training Fees (50% of fees payable)		33								
41 Mobile Tool Training Labour		38								
42 Designer Training Labour		38								
43 IT Support	393	100	102	104	106	108	113	117	122	127
44 DI Support		25	26	26	27	27	28	29	30	32
45 Misc. Fees and Expenses										
46 Discontinuation of Alberta Support	(652)	(166)	(169)	(173)	(176)	(180)	(187)	(194)	(202)	(211)
47 Contingency (20%)		74	54	55	56	57	59	62	64	67
48 Total Incremental Operating Costs (Savings)	1,420	279	153	156	159	163	169	176	183	190
(Forecast inflation rate 2%)										

As FortisBC already had in place an automated mapping system, which was shared with FortisAlberta, improved field crew efficiency was not a driver in the implementation of the project. The new system was required because the vendor of the existing software retired its existing technology. Foregone support of the previous system was included in the economic analysis, as shown in the revenue requirements analysis excerpt above.

96.0 Reference: Exhibit B-1, Application, Appendix E, Distribution Substation Automation Effectiveness Report, Tables 1-3, pp. 2-4

Q96.1 Please reconcile the claimed O&M savings identified in Tables 1 through 3 attributable to the Distribution Substation Automation project with the incremental O&M costs of \$25,000 and \$45,000 in 2009 and 2010 respectively as shown in Appendix D, Table A.

A96.1 Tables 1 through 3 do represent estimated cost savings attributable to the Distribution Substation Automation Program; however, they have intentionally not been characterized solely as reduced O&M costs. As discussed in the CPCN application, the cost savings for the Program (starting in 2011) were estimated to be allocated primarily as 80% to Capital and only 20% to O&M (refer to lines 25-28, p. 18 of the Distribution Substation Automation Program CPCN Application). Thus, of the estimated savings of \$82,475 in Table 3, only 20% of this (\$16,495) would be assumed to be reduced O&M costs.

The incremental O&M costs identified in Appendix D, Table A are direct O&M cost increases related to the license costs for the data historian software as well increased communications costs to remote substation sites.

Q96.2 Please reaffirm or revise the O&M savings in 2011 and beyond that are attributed to Distribution Substation Automation project as shown in Appendix D, Table A based on the information contained in the report in Appendix E. Please provide the analysis to support the annual O&M savings in 2011 and beyond.

A96.2 Given the early stage of the Program implementation, FortisBC feels that it would be premature to revise the cost savings analysis for the Program at this time. The estimated cost savings of \$82,475 identified in Appendix E represents approximately 20% of the savings due to improved operating efficiency identified in Section 4.7 of the CPCN application. Given that only about 33% of the Program has been completed, the current estimated savings compare favourably to the savings identified in the CPCN (especially given that most of the sites completed to date are in urban areas which typically have lower travel costs).

97.0 Reference: Exhibit B-1, Application, Appendix E, Distribution Substation Automation Effectiveness Report, Future Functionality, p. 5

Q97.1 When will the Data Historian be implemented and how will this help in the comparison of response times before and after implementation of Distribution Substation Automation.

A97.1 The Data Historian is currently scheduled to be released for production use in December 2009; however, full functionality will not be available until the Distribution Substation Automation Program is complete in 2011.

Regardless, the statement in Appendix E was not intended to imply that the Data Historian will provide a comparison between pre- and post-implementation response times. Currently, no manual log of alarm response times is maintained. However, once installed, the Historian will be able to generate reports of the absolute response time for specific alarms. This information can be used to generate reports which can track and compare the response times going forward.

Q97.2 When is it expected that sufficient data will be available from the system to determine system losses?

A97.2 Once all distribution substations are equipped with transformer metering, it will be possible to compare the total energy delivered by all distribution substations compared to the total available system resources (imports plus generation). By subtracting the former from the latter the transmission system losses (only) can be measured. These meter installations are scheduled to be completed by the end of 2011 as noted in the program CPCN. Note that it will not be possible to measure distribution system losses prior to the full implementation of the Company's planned Advanced Metering Infrastructure project.

1 **98.0 Reference: Exhibit B-1, Application, Appendix F, Wholesale Power Factors**

2 **Q98.1 Please explain whether the power factor calculations are based on peak or average**
3 **metered values, and provide which ever one has not been presented.**

4 A98.1 The power factor calculations are based on peak metered values. As the data is derived from
5 revenue meters, average values are not available.

6 **Q98.2 Are any of the metering systems capable of detecting periods of when the power factor is**
7 **below 0.95 and accumulating that total time?**

8 A98.2 FortisBC has power quality metering, which is capable of this, at 5 of the 17 points of delivery to
9 its wholesale customers.

FORTISBC INC.

**Projected 2010 Net Benefit Costs
for Employee Future Benefits Programs
in Accordance with CICA 3461**

August 2009

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Introduction

This report has been prepared for FortisBC Inc. (the "Company"), as requested by the Company, and presents the projected 2010 net benefit costs with respect to the employee future benefits provided to Canadian employees, in accordance with Section 3461 of the Canadian Institute of Chartered Accountants' Handbook ("CICA 3461").

This report provides details with respect to the covered benefits, membership data, plan assets, plan provisions, accounting policies, actuarial methods and assumptions and the projected 2010 net benefit costs under CICA 3461.

The information contained in this report was prepared for FortisBC Inc., for its internal use, in the disclosure of the net benefit cost for future benefit costs and obligations in FortisBC Inc.'s financial statements in connection with Towers Perrin's actuarial valuation of employee future benefit programs for accounting purposes. This report is not intended nor necessarily suitable for other purposes. Further distribution of all or part of this report to other parties or other use of this report is expressly prohibited without Towers Perrin's prior written consent.

Covered Benefits

To our knowledge, this report provides information on all post-employment benefits provided by the Company that are material to the Company's financial statements.

Registered Pension Plans

Our calculations include the following registered pension plans:

- FortisBC Retirement Income Plan (the "FRIP")
- FortisBC IBEW Pension Plan (the "IBEW Plan")
- COPE – FortisBC Pension Plan (the "COPE Plan")

The IBEW Plan and the COPE Plan are contributory final average earnings related defined benefit plans.

The FRIP contains both a closed contributory final average earnings related defined benefit provision and a defined contribution provision. This report only provides information with respect to the defined benefit provision.

Certain highly-paid employees of the Company and certain temporary or part-time employees affiliated with the IBEW participate in a Group RRSP. This report does not contain information with respect to the benefits earned by these employees under the Group RRSP.

The most recent actuarial valuation funding reports for the registered pension plans and the next required actuarial valuation funding reports are as follows:

	<i>Most recent valuation</i>	<i>Next required valuation</i>
IBEW Plan	December 31, 2007	December 31, 2010
COPE Plan	December 31, 2007	December 31, 2010
FRIP	December 31, 2007	December 31, 2010

Supplemental Pension Arrangements

There are two former employees and the surviving spouse of one former employee who are in receipt of supplemental pensions from the Company. Our calculations include provision for these supplemental defined benefits (the "Supplemental DB Plan").

The Company participates in a supplemental defined contribution retirement plan for certain employees of the Company whose earnings are such that the Income Tax Act limits restrict their benefits under the FRIP or the Group RRSP, as applicable. This plan is administered through Mercer Human Resource Consulting ("Mercer"). Our calculations include provision for these supplemental defined contribution benefits (the "Supplemental DC Plan").

Post-Retirement Benefits Other Than Pensions

The Company provides certain post-retirement benefits other than pensions to employees who retire directly from active employment. Our calculations include provision for all of these post-retirement benefits other than pensions. The most recent valuation of the post-retirement benefits other than pensions was undertaken as at December 31, 2007.

Membership Data

Our calculations are based on membership data compiled as at the following dates:

<i>Plan</i>	<i>Date of Membership Data</i>
Registered Pension Plans	
■ IBEW Plan	December 31, 2007
■ COPE Plan	December 31, 2007
■ FRIP	December 31, 2007
Supplemental Pension Arrangements	
■ Supplemental DB Plan	December 31, 2008
■ Supplemental DC Plan	December 31, 2008
Post-Retirement Benefits Other than Pensions	December 31, 2007

Appendix A contains a summary of the membership data.

Plan Assets

We obtained the market value of plan assets as at June 30, 2009 as shown in financial statements prepared by CIBC Mellon for the FRIP, Canadian Western Trust for the IBEW Plan and RBC Dexia for the COPE Plan. The market value of assets excludes assets attributable to the defined contribution provision of the FRIP.

The value of plan assets has been relied upon by Towers Perrin following tests of reasonableness with respect to contributions, benefit payments and investment income. Towers Perrin does not take responsibility for the information provided by CIBC Mellon, Canadian Western Trust or RBC Dexia.

The market values of plan assets have been projected from June 30, 2009 to September 30, 2009 and to September 30, 2010 assuming the following:

	FRIP	IBEW Plan	COPE Plan
From July 1, 2009 to September 30, 2009			
Employer contributions	\$ 75,000	\$ 616,000	\$ 298,000
Member contributions	\$ 22,000	\$ 560,000	\$ 147,000
Benefit payments	\$ 750,000	\$ 400,000	\$ 200,000
Rate of return on the fund	1.75%	1.75%	1.75%
From October 1, 2009 to September 30, 2010			
Estimated payroll			
■ Plan Earnings	N / A	\$ 14.9 Million	\$ 7.4 Million
■ Earnings	\$ 2.7 Million	\$ 17.2 Million	\$ 8.6 Million
Employer contributions	\$ 319,000	\$ 2,326,000	\$ 1,134,000
Member contributions	\$ 98,000	\$ 2,275,000	\$ 565,000
Benefit payments	\$ 3,000,000	\$ 1,600,000	\$ 800,000
Rate of return on the fund	7.00%	7.00%	7.00%

There are no assets in respect of supplemental pension arrangements or post-retirement benefits other than pensions.

Plan Provisions

Our calculations are based on the provisions of each plan as at August 31, 2009 and take into account all known substantive commitments made by the Company with respect to the covered benefits.

We are not aware of any changes to the plan provisions since September 30, 2008 that have a material effect on the financial position of the plans.

Summaries of the plan provisions for the registered pension plans and post-retirement benefits other than pensions may be found in the respective actuarial valuation reports for funding purposes.

Accounting Policies

The Company has adopted the following accounting policies, in accordance with the requirements of Section 3461 of the CICA Handbook:

- Section 3461 of the CICA Handbook was adopted prospectively effective January 1, 2000 (the "transition date") in a manner that amortized the net transitional asset/(obligation) at the transition date over the expected average remaining service lifetime ("EARSL") of employees who were active as of the transition date;
- increases in past service costs are amortized over the EARSL of employees who are active as of the date such costs are first recognized;
- the net actuarial gain or loss, including the impact of assumption changes, that exceeds 10% of the greater of the accrued benefit obligation and the fair value of plan assets as of the beginning of the period (the "10% corridor"), are amortized over the EARSL of employees who are active as of the date such amounts are recognized;
- for defined benefit provisions and post-retirement benefits other than pensions, a measurement date of September 30 is used; for the defined contribution portion of the supplemental pension arrangements, a measurement date of December 31 is used; and
- the market value ("fair value") of assets is used to determine the expected return on plan assets and the net actuarial gain or loss.

Actuarial Methods and Assumptions

The actuarial cost method used is the projected benefit method prorated on services, also known as the projected unit credit (with linear proration on service) actuarial cost method.

Defined Benefit Retirement Programs

Prospective benefits were calculated for each active member according to the actuarial assumptions shown in Appendix B. The benefit obligation for each active member was calculated as the actuarial present value of the member's prospective benefits earned in respect of credited service prior to the valuation date.

The benefit obligation for each inactive member was calculated as the actuarial present value of their respective benefits, according to the actuarial assumptions shown in Appendix B.

The defined benefit service cost for each active member was calculated as the actuarial present value of the member's prospective benefits in respect of service in the current year.

Defined Contribution Supplemental Arrangements

The notional contributions, investment income and year-end account balances were estimated based on the plan provisions.

Post-Retirement Benefits Other Than Pensions

Prospective benefits were calculated for each active member according to the actuarial assumptions shown in Appendix B. The benefit obligation for each active member was calculated as the actuarial present value of the member's prospective benefits multiplied by the ratio of service prior to the valuation date to the service from date of hire to full eligibility date.

The benefit obligation in respect of each inactive member was calculated as the actuarial present value of their respective benefits, according to the actuarial assumptions shown in Appendix B.

The service cost for each active member was calculated as the actuarial present value of the member's prospective benefits divided by service from date of hire to full eligibility date.

Projected 2010 Net Benefit Cost and 2010 Contributions

The benefit obligations and current service costs were first determined as at the date of compilation of the membership data. The benefit obligations were then extrapolated to September 30, 2009 based on the actuarial assumptions. No formal materiality guidelines are employed in conducting the valuations or the extrapolations.

The following table outlines the projected 2010 net benefit costs:

<i>2010 Estimated Net Benefit Cost</i>		
Registered Pension Plans		
■ FRIP	\$ 1,303,000	
■ IBEW Plan	2,911,000	
■ COPE Plan	<u>1,116,000</u>	\$ 5,330,000
Supplemental Pension Arrangements		
■ DB Supplemental Plan	\$ 116,000	
■ DC Supplemental Plan	<u>247,000</u>	\$ 363,000
Other Post-Retirement Benefits		<u>\$ 2,118,000</u>
Total		\$ 7,811,000

The following table outlines the projected employer contributions for calendar year 2010:

<i>2010 Calendar Year Employer Contributions</i>		
Registered Pension Plans		
■ FRIP	\$ 321,000	
■ IBEW Plan	2,340,000	
■ COPE Plan	<u>1,144,000</u>	\$ 3,805,000
Supplemental Pension Arrangements		
■ DB Supplemental Plan	\$ 84,000	
■ DC Supplemental Plan	<u>0</u>	\$ 84,000
Other Post-Retirement Benefits		<u>\$ 650,000</u>
Total		\$ 4,539,000

Actuarial Opinion

The calculations presented in this letter 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 for the calculations were determined by Company management as being their best estimate of long-term expectations, after discussions with Towers Perrin. Given that the assumptions were selected by management as representing their best estimates of future contingent events, the valuation is not intended to include any provision for adverse deviations. Towers Perrin's opinion is that these assumptions are in accordance with accepted actuarial practice. The discount rate used to determine the 2010 projected net benefit cost was based on AA corporate bond yields as at September 30, 2008.

In our opinion, for the purposes of determining the required accounting information, the data on which the valuations 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 (CICA) Handbook.

We are not aware of any matter or events expected to occur after the date of this opinion which have not been accounted for and which materially affect the projected financial position of the plans. However, emerging experience differing from the assumptions will result in gains and losses which will be revealed in future valuations.

This report has been prepared, and this actuarial opinion has been given, in accordance with accepted actuarial practice. This opinion forms an integral part of the report.

Towers Perrin Inc.


Stephen J. Butterfield, FSA, FCIA

August 31, 2009
Date

SUMMARY OF MEMBERSHIP DATA

Date of Membership Data	Registered Pension Plans			Supplemental Pension Arrangements
	FRIP - DB Only	IBEW Plan	COPE Plan	
	December 31, 2007	December 31, 2007	December 31, 2007	December 31, 2008
Active and Disabled Members				
Number	33	222	138	9
Average age	51.4	45.7	42.6	N/A
Average credited service	17.7	13.3	7.1	N/A
Annual covered payroll	\$ 3,587,200	\$ 14,964,800	\$ 8,244,000	\$ 2,559,700
Average covered payroll	\$ 108,700	\$ 67,400	\$ 59,700	\$ 284,400
Retired Members and Beneficiaries				
Number	205	64	45	3
Average age	76.4	67.6	67.3	69.7
Total annual lifetime pension	\$ 2,367,600	\$ 1,080,700	\$ 637,500	\$ 84,000
Average annual lifetime pension	\$ 11,550	\$ 16,890	\$ 14,170	\$ 27,990
Terminated Vested Members				
Number	20	41	23	N/A
Average age	54.4	48.6	45.3	N/A
Total annual lifetime pension	\$ 179,100	\$ 503,300	\$ 142,200	N/A
Average annual lifetime pension	\$ 8,950	\$ 12,280	\$ 6,180	N/A

SUMMARY OF MEMBERSHIP DATA

Post-Retirement Benefits Other than Pensions				
Date of Membership Data		IBEW Employees	COPE Employees	All Employees
		December 31, 2007	December 31, 2007	December 31, 2007
Active and Disabled Employees				
■	Number	221	138	476
■	Average age	45.6	42.6	44.6
■	Average service	14.4	9.9	12.4
Retirees and Surviving Spouses				
■	Number	118	43	261
■	Average age	75.1	68.2	72.7

ACTUARIAL ASSUMPTIONS**Economic Assumptions (per annum)**

Discount rate	6.00%
Rate of compensation increases	3.50%
Rate of increase in YMPE and Income Tax Act maximum pension limit	3.50%
Rate of inflation	
■ IBEW Plan and COPE Plan	2.25%
■ FRIP	2.67%
Expected rate of return on assets	7.00%
Extended health care cost trend rate	
■ Initial rate during first year	9.00%
■ Ultimate rate to which the trend rate is assumed to decline	5.00%
■ Year in which ultimate rate is reached	2013
Rate of increases in MSP premiums	4.00%
Rate of increases in HCSA	2.00%

Demographic Assumptions

Mortality	1994 Uninsured Pensioner Mortality Table projected to 2015 using Scale AA
Retirement	Age and service related rates (see valuation reports for details)
Withdrawal	Age and service related rates (see valuation reports for details)

Assumed Claims Costs (ensuing year)

Extended health care costs	
■ IBEW Employees (Single/Married)	\$ 654 / \$ 1,308
■ COPE Employees (Single/Married)	\$ 600 / \$ 1,200
■ Non-Union Employees (Single/Married)	\$ 572 / \$ 1,144
MSP Premiums (Single / Married)	\$ 648 / \$ 1,152
HCSA (Single / Married)	\$ 2,000 / \$ 2,000

Other Assumptions

Proportion of employees with eligible spouses	
■ Current retirees	Current Marital Status
■ Future retirees	80%
Age difference between spouses	Males 3 years older than females

Capitalization Policy

This Capitalization Policy provides guidelines for the allocation of costs to either Capital or Operating Expense. These principles are intended to conform to Generally Accepted Accounting Principles (“GAAP”) as outlined in the Canadian Institute of Chartered Accounts Handbook, regulatory requirements as well as industry best practices. Where differences exist between this policy and British Columbia Utilities Commission Orders, the regulatory Order will prevail.

FortisBC’s capital spending policy provides uniformity and consistency throughout the organization for the accounting of assets that are acquired, built, developed, installed, retired, removed or replaced. This policy should be used to complete both the operating and capital budgets.

Capitalization Principles:

1. All expenditures are considered Operating Expense until it is proven that they meet the capital criteria.
2. In certain cases neither GAAP nor regulatory requirements provide definitive rules that apply to every possible situation. In these cases, prior to approval of the expenditure, the Manager of the department initiating the project should confirm with the Manager, Budgets and Forecasts whether the project is capital or expense.
3. Costs include the amount to acquire, construct, develop or better an asset.
4. Capital assets include but are not limited to land, buildings, property, equipment, machinery, poles, wires, insulators, underground cable, furniture and fixtures, tools and instruments, computers, software, motor vehicles, reservoirs, dams and waterways, water wheels and turbines.
5. All capital assets will be shown at historical cost.
6. Capitalization of all costs will be based on effort (including all support functions) associated with the capital work being performed.
7. Staff will direct charge to projects where possible.
8. Where there is a regulatory GAAP variance, a copy of the variance will be filed with the finance department.

Capital Expenditures are expenditures in excess of \$1,000 and that meet all of the following criteria:

1. Provide substantial benefits for a period of more than one year.
2. Extend the useful life of an asset or increase the capacity of an asset or the quality of output efficiency and may reduce operating costs (non-recurring expenditures) Note: this does not include routine maintenance.
3. Are held for use to conduct business/generate income.

Capital Expenditures include the following costs:

- Internal Labour costs directly charged
- Contract Work directly charged
- Vehicle Hours directly charged
- Materials & Supplies directly charged
- Overhead recoveries
- AFUDC (Allowance for Funds Used During Construction)

Capitalization Policy

Additional Guidelines

Investigative Spending Projects

1. Investigative projects are defined as projects requiring investigation work to be completed before a proper scope and budget estimate can be submitted.
2. Investigative projects require an order to be set up to capture dollars while investigation is under way and will be reported as a deferred charge.
3. Once a capital project is set up the dollars will transfer to this approved project.
4. If a project is not approved the dollars in this project will be charged to Operating Expense.

Cost of Removal and Retirement

1. When an asset is retired from service, the asset account will be credited with the historical cost of the asset being removed.
2. If the asset being retired is a depreciable asset, the historical cost less any net salvage value and/or any insurance recovered, will be charged to accumulated depreciation.
3. If any material is salvaged, the net salvage value is the salvage value less any removal costs.
4. Salvage value is, if the material is sold, the selling price, or if the material is retained for use by the company, the original cost.

Staff Training & Development

1. Training to operate or maintain a new plant facility (e.g. substation) being constructed may be capitalized as a part of construction costs.
2. Training and other ongoing support costs related to IT software projects must be treated as an operating expense.
3. General training, once a plant facility is in service must be treated as an operating expense.

Repairs and Improvements

1. Ordinary Repairs (Normally Operating Expenses)

Recurring or routine costs for parts, labour etc that do not extend the useful life of the capital asset but are necessary to keep the asset in normal operating condition (preventative maintenance costs/high wear items) are to be expensed.

2. Extraordinary Repairs (Normally Capital Expenditures)

Large significant expenditures (relative to the total capital cost of the asset) for major repairs that extend the useful life of the capital asset and are not recurring in nature are generally to be capitalized.

3. Improvements (Normally Capital Expenditures)

Involves the installation of a new part that is a betterment to the old part and will provide benefit in the form of greater output or lower operating costs for many years

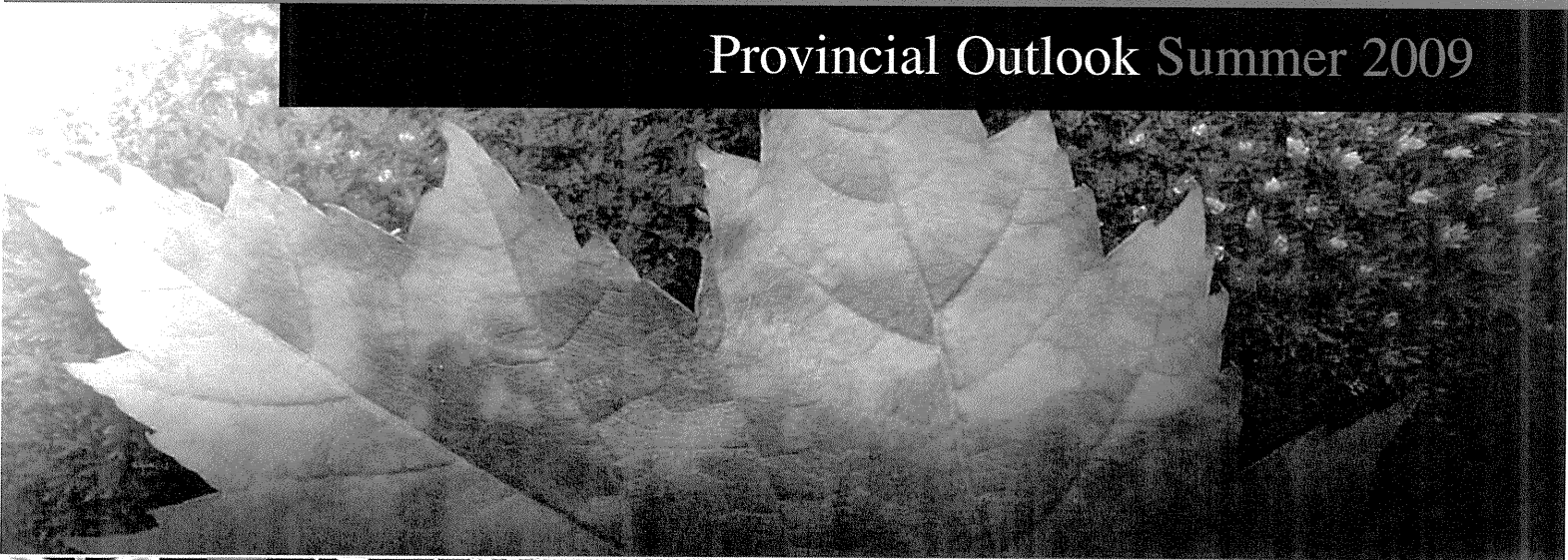
Questions:

Should you have any questions pertaining to the above policy please contact the Manager, Budgets and Forecasts or the Controller.

The Conference Board of Canada
Insights You Can Count On



Provincial Outlook Summer 2009



Economic Forecast

ECONOMIC PERFORMANCE AND TRENDS

The Conference Board of Canada Insights You Can Count On



Provincial Outlook Summer 2009: Economic Forecast
by *The Conference Board of Canada*

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Preface

The *Provincial Outlook Summer 2009* was prepared by Marie-Christine Bernard, Associate Director, under the general direction of Paul Darby, Deputy Chief Economist.

The report examines the economic outlook for the provinces, including gross domestic product (GDP), output by industry and labour market conditions. At the end of the report, there is a forecast for Canadian economic indicators and a comparison of GDP by province and industry.

The Provincial Outlook is updated quarterly using the Conference Board's large econometric model of the provincial economies.

The publication can be accessed on-line at www.e-library.ca and for clients subscribing to e-Data at www.conferenceboard.ca/edata.htm. For more information, please contact our information specialist at 613-526-3280 or 1-866-711-2262 or e-mail contactcboc@conferenceboard.ca.

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ISSN 0827-5785

Agreement No. 40063028

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Forecasts and research often involve numerous assumptions and data sources, and are subject to inherent risks and uncertainties. This information is not intended as specific investment, accounting, legal, or tax advice.

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Signs of a Recovery in Sight

HIGHLIGHTS

- Growth in Canada is forecast to resume over the second half of 2009. Still, real GDP will contract by 1.9 per cent this year before recovering with growth of 2.7 per cent in 2010.
- Newfoundland and Labrador will have to contend with a mature offshore oil industry; a steep real GDP decline is forecast this year, and no recovery is expected in 2010.
- The Maritime provinces, along with Manitoba, will post positive real GDP growth this year. All four provinces have managed to avoid the boom–bust cycle.
- In Quebec, the global recession has hurt trade, but the domestic economy is holding up. After a 0.9 per cent drop in 2009, the province will turn around with real GDP growth of 1.8 per cent in 2010.
- While the situation in Ontario remains challenging, there are signs that a bottom is forming in the automobile sector. Ontario's economy is forecast to rebound next year.
- The outlook for Saskatchewan has been downgraded significantly. An unfavourable outlook for potash and agriculture will pull down economic growth this year.
- The swift correction in the housing markets in Alberta and British Columbia is gradually fading. Both provinces will see real GDP growth above 3 per cent in 2010.

NATIONAL OVERVIEW

Canada's economy contracted sharply in the first quarter of this year, posting a second consecutive quarterly decline and thus meeting the official definition of a recession. In retrospect, however, various sectors of the Canadian economy have been in difficulty since U.S. real estate markets began unwinding back in late 2005. The steep and steady erosion in U.S. home values has damaged U.S. household net worth and confidence, forcing consumers to step up their saving and hold back on spending. Canadian firms have been hit hard by the fallout. Lumber and construction material exports fell off sharply, and exports of autos and parts followed soon after, pounding Canada's auto industry. In line with the subsequent drop in U.S. and Canadian business investment, the pain has spread to Canadian firms producing a wide range of supplies and industrial materials.

The falloff in U.S. consumer spending has, however, had a much broader reach—the waves of contraction are being felt all over the world. Global trade has tanked in recent quarters, affected by the vicious cycle of falling confidence and retrenching business

investment. The global economy is expected to contract by a phenomenal 2.6 per cent this year even as some developing economies—China and India in particular—continue to grow. As a result of the global recession, we have seen a steep drop in raw material prices—including energy prices—from where they were a year ago. The fall in raw material prices has removed a significant source of income from the Canadian economy, dampening growth in the domestic economy and adding to the woes of our exporters. Overall, Canada's real gross domestic product is forecast to contract by 1.9 per cent this year. Next year, recovering commodity prices and growth in U.S. household spending will serve to bolster the Canadian economy. Moreover, the full effect of government stimulus packages will further prop up the economy. Real GDP growth of 2.7 per cent is expected for 2010.

Because the current recession is so widespread, affecting nearly every corner of the globe, its effects are expected to linger for longer than a typical business cycle. Moreover, U.S. households, which account for roughly 15 per cent of global demand, are expected to bolster their savings over the forecast horizon as they endeavour to recoup losses in wealth resulting from the declines in home values and equity markets. Aggregate U.S. household savings rates, which averaged just 0.6 per cent in 2007, have jumped sharply in recent months, and are forecast to continue to climb, peaking at over 5 per cent in 2011. These factors suggest that the global recovery will be soft in comparison with the typical rebound from previous post-war business cycles. Despite expansionary fiscal policy and monetary stimulus, Canada's GDP will not start to grow significantly above potential until 2011. According to our estimates, the output gap¹ will average around –5.6 per cent in 2009, suggesting that gap closure will not occur until 2013.

With the U.S. recession having spread north to Canada, consumers in this country have also tightened their purse strings. As in the U.S., households in Canada have been hit by the effects of falling equity values and home prices and dwindling confidence. Moreover, employment losses are mounting. Between November and June, the Canadian economy shed 360,000 jobs. The effects on labour income will be further amplified by low wage gains and by a reduction in average hours worked as companies replace full-time workers with part-time staff. Despite muted inflation and significant tax cuts by various levels of government, real after-tax income is expected to shrink by 0.5 per cent this year. This will be a shock to Canadian consumers who, over the past six years, have

grown accustomed to real disposable income growth averaging a handsome 3.7 per cent annually. With consumers struggling to add to savings, real Canadian household spending is forecast to contract by 0.7 per cent this year. New home construction and home renovations spending will also suffer a steep decline this year.

The situation is even more dire for businesses. Uncertainty and volatility surrounding the global economic downturn has shut down capital investment plans throughout the country. And while Canada's banking sector is in relatively good shape, lending practices have tightened up considerably. A combination of weak demand for goods and services and a sharp reduction in resource prices is expected to take about \$69 billion dollars from corporate profits this year. No surprise then that business investment intentions are down sharply for 2009. Total private non-residential investment will fall by a disappointing 15 per cent this year before rebounding with weak growth of 2.6 per cent in 2010.

For this year, the only positive contribution to Canada's domestic economy will come from the government sector. Federal and provincial governments have committed, in varying degrees, to strong infrastructure stimulus and other incentives to try to prop up the economy. Even as growth in direct program spending is moderating in light of prudent provincial budgets, and even though peak spending is not expected to occur until next year, the infrastructure stimulus will be timely. The federal government has calculated that the combination of sustained spending and shrinking revenues will result in a \$50-billion deficit in the current fiscal year. And while the federal situation is cause for serious concern, provincial governments as a whole are in even worse shape. Even when economic growth recovers, deficits at the regional levels of government will be difficult to correct.

PROVINCIAL OVERVIEW

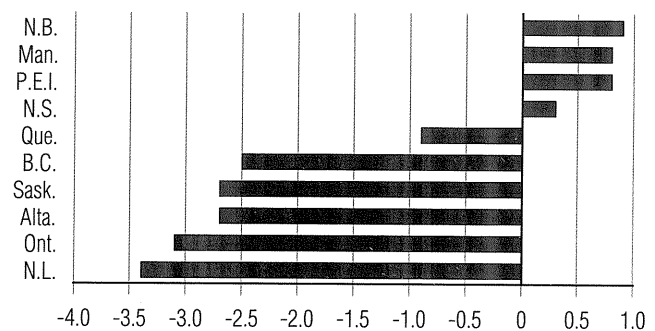
The last few months have been challenging, especially for Ontario and Saskatchewan where economic conditions have continued to deteriorate. The bankruptcy and restructuring activities of Chrysler and General Motors paralyzed Ontario's manufacturing sector in the first part of 2009. And the massive reduction in potash extraction activities, combined with drought-like conditions in certain parts of Saskatchewan, will leave that province feeling the global recession quite heavily. But there are encouraging signs that the worst of the business cycle might be over. This is particularly true for Alberta and British Columbia, which have been trending down since early 2008. A resurgence in oil prices and, more importantly, a drop in construction costs point to a turnaround in the energy sector soon. Also the housing sector is rebounding sooner than expected in Western Canada. Better affordability has

boosted housing resale activity and new housing construction in recent months. In Newfoundland and Labrador, economic growth will be muted by a large contraction in oil production at all three main producing fields (Hibernia, Terra Nova, and White Rose). Despite the negative headwinds, Manitoba's economy has proven resilient, as have the economies of the Maritime provinces—Prince Edward Island, Nova Scotia, and New Brunswick. All four provinces will record modest economic growth in 2009.

Over the next year, all provinces will slowly recover. The provinces most affected by the global recession will see the strongest rebound with growth averaging well over 3 per cent. Boosted by federal fiscal stimulus and a turnaround south of the border, the recovery will take shape as the second half of 2009 progresses.

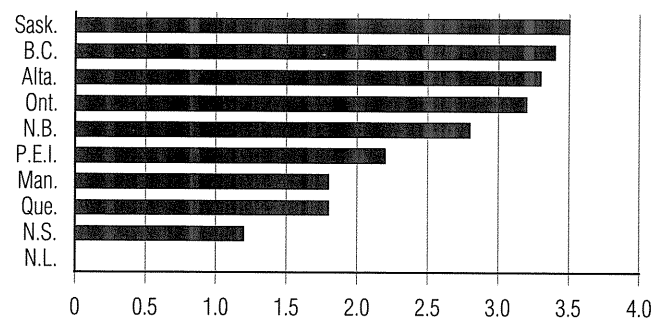
While the trade sector in Central Canada² is in deep recession, the weakness is concentrated mainly in the auto, primary metal, and forestry industries. It is not all bad news for Quebec at the moment. While a correction in the province's housing sector was expected, the drop in activity has been mild and controlled. Labour markets have been restructuring, but the weakness there since the start of the year has been mostly in the manufacturing, public administration, and health-care and social assistance sectors. Consumer spending has slowed down, but the province will still manage to eke out a small positive performance this year in real terms. Businesses in all provinces have been holding back on expansion plans due to the credit crisis, but Quebec will fare relatively well on the non-residential investment front. Work already under way for the development of additional wind power and hydroelectric generating capacity will temper the decline in investment. All in all, Quebec is expected to see a 0.9 per cent (real GDP at basic prices) contraction this year and a mild rebound of 1.8 per cent next year. (See charts 1 and 2.) The Ontario economy is not out of the woods yet, but at least the decline appears to be

Chart 1
Real GDP by Province, 2009
(percentage change; 2002 \$)



Sources: The Conference Board of Canada; Statistics Canada.

Chart 2
Real GDP by Province, 2010
(percentage change; 2002 \$)



Sources: The Conference Board of Canada; Statistics Canada.

over. In fact, the slide that began in Ontario in mid-2008 is expected to give way to a gradual recovery as we move through the last half of 2009. A bottom seems to have been reached for key sectors. Surprisingly, vehicle production in Ontario turned the corner in the second quarter of 2009 and should elicit a gradual rebound in the devastated auto sector. With both Chrysler and General Motors successfully emerging from Chapter 11 bankruptcy protection and U.S. consumer demand having hit bottom, the automobile sector will recover at a double-digit pace in 2010. Consumer demand in Ontario, boosted by income tax cuts, will also make a comeback next year, along with private investment and housing demand. Overall, Ontario's real GDP is expected to tumble by 3.1 per cent this year but rebound by 3.2 per cent in 2010.

While the severe global recession has severely shaken many provinces, Atlantic Canada has managed to remain in generally good health. All three Maritime provinces (along with Manitoba) will avoid recession. New Brunswick will emerge as a growth leader this year. Fuelled by public stimulus for new infrastructure investment and lower income taxes, overall real GDP is expected to rise by 0.9 per cent this year. The province will lead the Atlantic region again next year with 2.8 per cent real GDP growth, but there is downside risk as Irving Oil has decided not to proceed with the development of a new gasoline refinery at the moment. The outlook is holding up for Nova Scotia. The financial sector is in good shape, and the offshore natural gas expansion of the Deep Panuke site will stimulate non-residential investment this year. Overall real GDP growth of 0.3 per cent is forecast this year. Next year, the economy will advance by a mild 1.2 per cent as construction on major projects winds down. The Prince Edward Island economy is fairly stable. The public sector there is poised to grow strongly this year. Next year, the Island is forecast to see growth of

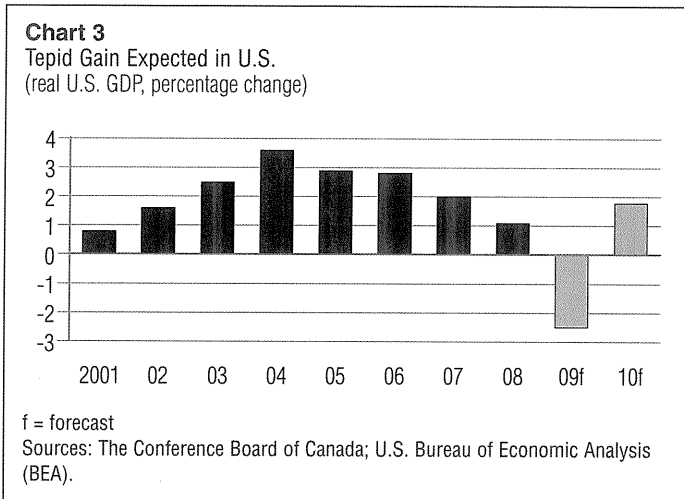
2.2 per cent as activity in key sectors—in particular, construction and manufacturing—intensifies. With a significant contraction in oil production, Newfoundland and Labrador will see a big 3.4 per cent drop in real economic activity this year. Unfortunately, the oil industry will contract again in 2010, leaving Newfoundland and Labrador with zero growth in real GDP next year.

There are some sectors in Manitoba that are feeling the global downturn. Mining and manufacturing are both struggling. In general, however, the province is holding up better than most. A construction boom that began four years ago will remain a pillar of strength for the province. Manitoba's economy has proven resilient with real growth of 0.8 per cent anticipated this year and 1.8 per cent in 2010. Saskatchewan, on the other hand, has fallen victim to the severe global recession. With farmers everywhere reluctant to ramp up costs in these difficult times, global demand for fertilizer has plunged. As a result, potash production in the province has been slashed in half since last year. Saskatchewan will suffer a real GDP decline of 2.7 per cent in 2009 due to the double-digit drop in mining and a big drop in agricultural production. But resource-dependent provinces often experience volatile real GDP growth, and a 3.5 per cent rally in economic activity is projected next year in Saskatchewan once international demand for primary commodities improves.

In Alberta, the recession is not expected to linger much longer. Oil prices have firmed up in recent months. More importantly, construction costs have come down. When labour and material costs were spiralling out of control, large energy initiatives became unfeasible. Now that those costs are falling, some petroleum companies are thinking of restarting deferred projects. The energy sector is expected to make a positive contribution to the economy in 2010 as capital expenditures related to the development of the oil sands intensify. The domestic economy should recover next year spurred by employment gains and stronger wage growth. Following a 2.7 per cent contraction in real GDP this year, a 3.3 per cent bounce-back is forecast for Alberta next year. A similar outlook is forecast for British Columbia where real GDP will slip by 2.5 per cent in 2009 after making no gains in 2008. The near-term outlook is, however, promising for British Columbia. The housing market seems to have hit bottom. Both the resale and existing home markets have improved in the past few months. A comeback in the construction sector, combined with a modest recovery in forestry and manufacturing, will elicit a turnaround in the economy next year. On top of that, stimulus from the 2010 Olympic Winter Games will help propel real GDP by a strong 3.4 per cent in 2010.

U.S. ECONOMY

Recent indicators suggest that the severe recession gripping the U.S. economy since January 2008 is slowly winding down. The main factors behind the more optimistic outlook are the growing signs of stability in the housing sector and evidence that household spending is starting to stabilize. The current outlook calls for real GDP to decline by 1 per cent in the second quarter (annualized) before rebounding and growing by 1.7 per cent in the third quarter and 1.2 per cent in the final quarter of this year. In 2010, the economy is expected to expand by a tepid 1.8 per cent. (See Chart 3.)



The efforts by both the Federal Reserve and the federal government are finally starting to have a positive impact on housing markets. The Fed's purchases of mortgage-backed securities and its reduction of the federal funds rate to close to zero have lowered mortgage rates to well below 5 per cent—down from 6 per cent just last fall. This development, combined with rock-bottom home prices, has led to a recent rebound in sales of both new and existing homes. Even more encouraging is the fact that inventories of new homes have come down to levels that existed prior to the bursting of the housing bubble. Unfortunately, home prices have continued to decline in many parts of the country, in part because of numerous foreclosure sales. Foreclosed properties are selling at a 25 per cent discount in most markets, and that tends to depress prices for all properties in the neighbourhood, even those not in foreclosure.

The major declines in consumer spending that were recorded toward the end of last year have also come to an end. Given the difficulties in labour markets, spending is certainly not on the verge of a sharp rebound—but it has at least stabilized somewhat. The rebound in equity markets and a slowdown in the pace of job losses have resulted in a welcome rebound in consumer confidence from the record-low levels that transpired over the winter months. Households have started to save again (the savings rate was close to 6 per cent in April), and this cushion has left consumers in a

less panicky frame of mind, a development that has encouraged higher spending. Of course, if the savings rate climbs higher, this will have a negative effect on spending going forward.

Infrastructure spending to improve roads and bridges throughout the country is set to kick in during the second half of 2009, an initiative that will support the economic recovery going forward. In fact, infrastructure spending should help to offset the negative impacts from cuts in spending implemented by many state and local governments in response to lower tax collections.

The major risks to the outlook and the factors that will restrain the pace of economic recovery are private investment spending and export demand. Real spending on equipment is expected to decline by close to 19 per cent this year, and growth of less than 1 per cent is anticipated in 2010. The slow growth in profits, combined with tight credit conditions, has led businesses to sharply cut inventories and investment spending. In some sectors of the economy, inventory cuts have been so drastic that any rebound in demand over the next few months could actually set the stage for an improvement in manufacturing activity over the near term.

The outlook for U.S. exports is also less than optimistic, as we expect real exports to drop by 12.2 per cent this year. Demand for exports is slumping because Japan and most of Europe are in the grip of severe recessions. Even a weaker U.S. dollar has been unable to offset the effects of the global recession on the export market. Fortunately, demand for American products from China and other emerging markets where governments have initiated massive stimulus efforts should mitigate the pace of export declines over the short term.

MONETARY POLICY

Canada's banking system and mortgage market are in much better shape than those of our southern neighbour, and the degree of government intervention has been correspondingly less aggressive. While the Bank of Canada had been active in providing extra liquidity to the financial system through short-term transactions and lower rates, it has thus far avoided having to resort to quantitative easing (essentially printing extra money). Still, the Bank of Canada's announcement in April that it would keep its overnight lending rate at near zero until June of next year was unconventional and essentially nailed down the Bank's key policy instrument for over a year.

The Bank has lowered its key lending rate from 3.5 per cent in March 2008 to just 0.25 per cent today. The last 0.25 percentage point decline occurred this past April 21, along with the Bank's announcement that the target overnight lending rate had effectively reached its lower bound. However, the Bank had been frustrated

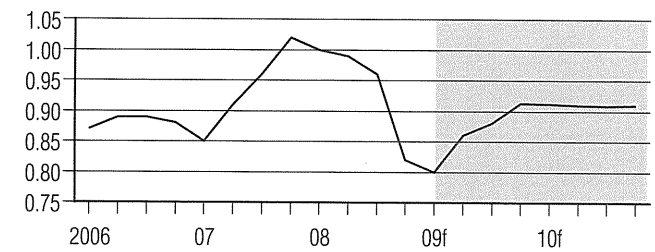
by the fact that lowering its key lending rate was not being fully transmitted through to market lending rates, a phenomenon described as “pushing on a string.” Thus, in its April announcement, it provided the additional guarantee that it would keep rates this low until June 2010. The policy has been effective, helping to lower commercial lending and mortgage rates on both the short and longer end of the yield curve. However, this policy comes with some risks. The transmission of monetary policy to the economy is a relatively long process, with estimates suggesting that it takes about 18 months from the time interest rates are changed to the time they have a peak impact on real GDP. While it is true that the Bank of Canada suggested its promise to keep interest rates where they are until next year is based on the assumption that inflation will remain in line with expectations, it would still lose a lot of credibility if it were forced to raise rates ahead of schedule. Given that credibility is paramount to effective monetary policy, it is very unlikely that the bank rate will be changed any time before June 2010.

At least for this year, the Bank’s fixed-rate policy is unlikely to draw much controversy. Sluggish economic growth, an appreciating Canadian dollar, and soft commodity prices will all help to hold down inflation through the rest of 2009. And while energy prices are forecast to trend up over the course of 2009, they will remain below the levels reached in 2008. While it is likely that the year-over-year inflation rates will dip into negative territory over the next couple of months, there is no real danger of Canada falling into a protracted state of deflation. After advancing by 2.4 per cent in 2008, CPI inflation is forecast to advance by only 0.8 per cent in 2009. Looking ahead to 2010, an improved economic performance and still-rising energy prices are expected to boost price inflation to 2.6 per cent, pushing toward the upper edge of the Bank’s comfort zone.

In recent months, the loonie has returned to its old habit of moving in lockstep with energy and other raw material prices. The break from this pattern, which occurred over the second half of 2008 and into early 2009, had more to do with how foreign exchange markets reacted to the greenback during the business cycle than with the Canadian dollar itself. Despite being the epicentre of the global recession, the U.S. continues to be regarded as a safe haven for investors whenever volatility and uncertainty erupts. This situation helped to boost the value of the U.S. dollar sharply last fall and into the first quarter of this year. However, as the U.S. and global economies start to stabilize, the “safe haven” factor is dissipating and the greenback is losing steam. This depreciation is at least partly responsible for the recent run-up in energy prices and the value of the loonie. Overall, the Canadian dollar is expected to average US\$0.86 in 2009, still an 8.3 per cent depreciation over last year’s level. The loonie is forecast to strengthen steadily over the near term, averaging US\$0.91 in 2010. (See Chart 4.)

Chart 4

Loonie Will Hover Around US\$0.91 in 2010
(U.S./Canada exchange rate)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

FISCAL POLICY

The federal government’s financial situation has changed drastically. Following 11 consecutive years of surpluses that seemed to surprise on the upside nearly every year, the government is now facing a situation in which revenues are surprising on the downside. In May, the government announced that the federal deficit for 2009–10 will likely be \$16 billion higher than planned, rising to a record \$50 billion. As revenues continue to shrivel, the federal government has committed to numerous stimulus measures to help counter the effects of the current business cycle. In addition to automatic stabilizers such as employment insurance, the government has boosted the generosity of the employment insurance program, and provided personal and business tax relief and other spending incentives. Most important, however, is the federal government’s infrastructure stimulus package, which should (with the participation of the provinces) generate about \$12 billion in new construction spending for fiscal year 2009–10. Given the time required for a typical project review, the approval process, and the actual construction, the impact on construction activity is expected to be drawn out over 2009 to 2012, with peak activity expected in 2010.

While the effects of the recession will be protracted, our forecasts suggest that the federal government is still in a structurally sound fiscal position—that is, the federal government is expected to rebalance its books as the economy returns to full capacity and temporary tax measures, other incentives, and the stimulus package come to an end. On the other hand, regional governments as a whole are in a more troublesome situation. Provincial governments have had to deal with the increased costs of social programs, the obligation to match federal infrastructure spending, their own stimulus packages, and shrinking corporate and personal income tax revenues. In addition, for some provinces the difficulties have been expounded by the direct effect that the drop in commodity prices has had on royalty revenues. Dealing with the sharp and rapid revenue losses will be difficult for regional governments. Until very recently, most had been ramping up spending at a record pace while

still managing to post surpluses thanks to better-than-expected growth in revenues. Given the current situation and the ever-present upward pressure on health-care budgets, the economic recovery as forecast over the medium term will not suffice on its own to bring regional governments back into surpluses. The implication is that, sooner or later, provinces will have to boost taxes and cut spending in order to return to a balanced budget.

Combining all levels of government, total real current spending on goods and services was flat in the first quarter of 2009. Despite the massive fiscal stimulus efforts, the federal and the provincial

governments are being more prudent with respect to spending on their own programs (composed largely of spending on wages and salaries of public servants). Overall, real government spending on goods and services is forecast to advance by 2.3 per cent this year, down from 3.7 per cent growth in 2008. The boost from infrastructure spending did not show up in the first quarter of this year; however, we expect strong gains over the rest of 2009 and through 2010. Overall, real government fixed capital formation is forecast to expand by 15.6 per cent in 2009, followed by growth of 11.5 per cent in 2010.

¹ The output gap is defined as the percentage difference between actual output and the production potential that the economy could attain should all factors of production (namely capital and labour) be fully and efficiently employed.

² Central Canada is defined as Quebec and Ontario.

Des signes de reprise à l'horizon

FAITS SAILLANTS

- Le Canada devrait renouer avec la croissance en seconde moitié de 2009. Le PIB réel se contractera de 1,9 p. 100 cette année, puis gagnera 2,7 p. 100 en 2010.
- L'industrie du forage en mer étant à maturité, Terre-Neuve-et-Labrador devrait accusé un net recul de son PIB cette année. Et 2010 n'amènera pas la reprise.
- Les Maritimes, comme le Manitoba, afficheront une croissance positive du PIB réel cette année. Ces quatre provinces ont su résister au cycle d'expansion et de ralentissement.
- Au Québec, la récession mondiale a pesé lourd sur le commerce extérieur mais l'économie intérieure tient le coup. Après un recul de 0,9 p. 100 en 2009, la province profitera d'une progression de 1,8 p. 100 du PIB en 2010.
- Même si l'Ontario demeure en situation difficile, certains indices portent à croire que le pire serait passé dans le secteur de l'automobile. L'économie ontarienne devrait se relancer l'an prochain.
- En Saskatchewan, les prévisions se sont nettement détériorées. Les perspectives peu favorables pour la potasse et l'agriculture généreront la croissance économique cette année.
- La correction marquée des marchés de l'habitation, en Alberta et en Colombie-Britannique, tire à sa fin. En 2010, les deux provinces montreront une croissance du PIB réel supérieure à 3 p. 100.

LA SCÈNE NATIONALE

L'économie du Canada s'étant contractée, fortement, lors des trois premiers mois de l'année, affichant ainsi un deuxième recul en autant de trimestres, elle reflète la définition officielle de la récession. Un regard en arrière révèle toutefois que divers secteurs de l'économie du pays ont des difficultés depuis le début des déboires des marchés immobiliers américains, tard en 2005. L'érosion continue et marquée de la valeur des logements a fait s'effriter la richesse nette et la confiance des ménages américains, obligeant les consommateurs à épargner davantage et à réduire leurs dépenses. Les entreprises canadiennes ont été très affectées. Les exportations de bois d'œuvre et de matériaux de construction ont nettement chuté, puis, peu après, les exportations de voitures et de pièces automobiles, avec des répercussions sur l'industrie automobile canadienne. Du fait de la réduction ainsi provoquée dans les investissements des entreprises des États-Unis et du Canada, des sociétés d'ici produisant une grande diversité de fournitures et de matières industrielles ont été contaminées par le malaise.

Le recul des dépenses de consommation aux États-Unis a toutefois eu des incidences beaucoup plus étendues, la contraction se répercutant partout sur la planète. Au cours des derniers trimestres, le commerce mondial a subi les contrecoups du cycle négatif d'une perte de confiance et de la réduction des investissements des entreprises. Cette année, l'économie mondiale devrait accusé une « mémorable » contraction de 2,6 p. 100, en dépit de la croissance enregistrée dans certaines économies en développement, notamment la Chine et l'Inde, où l'élan se maintient. La récession mondiale a fait tomber les prix des matières premières, y compris l'énergie, par rapport aux cours d'il y a un an. L'évolution négative des matières premières a privé l'économie canadienne d'une importante source de revenus, limitant de ce fait la croissance de l'économie intérieure et ajoutant aux difficultés de nos exportateurs. Le produit intérieur brut réel du Canada devrait se contracter de 1,9 p. 100 cette année. L'an prochain, notre économie profitera du rétablissement des prix des produits de base et de l'accroissement des dépenses des ménages américains. À cela s'ajoutera l'effet entier des mesures de stimulation publiques. Ainsi, une croissance de 2,7 p. 100 du PIB réel est prévue pour 2010.

L'ampleur quasi-planétaire de l'actuelle récession se verra au-delà d'un cycle économique normal. En outre, les ménages américains, qui interviennent pour environ 15 p. 100 de la demande mondiale, devraient accroître leur épargne au cours de la période de prévision, de façon à compenser les pertes de richesse résultant de la baisse de valeur des logements et de la faiblesse des marchés boursiers. Le taux d'épargne totale des ménages américains, un maigre 0,6 p. 100 en 2007, a beaucoup grimpé ces derniers mois et devrait toucher, même dépasser les 5 p. 100 en 2011. Cela porte à croire que la reprise mondiale se fera de façon modérée par rapport aux revirements connus lors des cycles économiques d'après-guerre. En dépit d'une politique budgétaire expansionniste et des mesures de stimulation monétaire, le PIB du Canada ne commencera pas à progresser vraiment au-delà de son potentiel avant 2011. Selon nous, l'écart de production¹ sera, en moyenne, de -5,6 p. 100 en 2009, ce qui signifierait que ce n'est qu'en 2013 que le plein potentiel serait exploité.

En se propageant vers le Nord, la récession née aux États-Unis a obligé les consommateurs canadiens à adopter, eux aussi, des comportements plus prudents. Les ménages du Canada se sont ressentis du recul boursier et de la perte de valeur des logements, et ils se sont montrés moins confiants. En même temps, les pertes

d'emplois s'accumulaient : de novembre à juin, 360 000 emplois en moins dans l'économie canadienne. Les effets sur les revenus des travailleurs seront encore amplifiés par le niveau réduit des salaires et une diminution du nombre moyen d'heures travaillées puisque des entreprises remplacent des employés à temps complet par des temps partiel. Ainsi, malgré une inflation maîtrisée et des baisses d'impôts accordées à divers paliers, le revenu réel après impôts devrait diminuer de 0,5 p. 100 cette année. Bien mauvaise nouvelle pour les consommateurs canadiens qui, depuis 6 ans, jouissaient d'une progression moyenne du revenu disponible réelle de 3,7 p. 100 par année. S'efforçant de garnir leur épargne, les ménages canadiens devraient dépenser 0,7 p. 100 de moins cette année. La construction de logements neufs et les dépenses de rénovation domiciliaire chuteront aussi beaucoup cette année.

Les entreprises connaissent une situation encore plus difficile. L'incertitude et l'instabilité résultant de la crise économique mondiale ont mis un terme à des projets d'immobilisations partout au pays. Et même si le secteur bancaire du pays se porte assez bien, les pratiques d'octroi de prêts se sont faites beaucoup plus restrictives. En 2009, sous l'effet combiné de la faible demande de biens et services et d'un recul marqué du prix des ressources, les profits des entreprises baisseront, croyons-nous, de quelque 69 milliards de dollars. C'est donc sans surprise que l'on voit les intentions d'investir des entreprises s'atténuer considérablement en 2009. L'investissement non résidentiel privé reculera malheureusement de 15 p. 100 cette année, puis reprendra ensuite un peu en 2010, affichant alors une modeste croissance de 2,6 p. 100.

Cette année, seul le secteur public aura un apport positif à l'économie intérieure du Canada. Le gouvernement fédéral et les provinces se sont engagés, de façons variées, à distribuer d'importants incitatifs à l'égard des infrastructures et d'autres mesures de stimulation visant à faire s'activer la machine économique. Là, même si les dépenses de programme directes diminuent en raison de budgets provinciaux guidés par la prudence, et même si le rythme maximal des dépenses ne sera atteint que l'an prochain, la stimulation liée aux infrastructures viendra à point nommé. Le gouvernement fédéral a calculé que, ensemble, ses dépenses soutenues et la diminution de ses recettes se traduiront par un déficit budgétaire de 50 milliards de dollars au terme de l'exercice en cours. Notons que si la situation est préoccupante au palier fédéral, collectivement, les gouvernements des provinces sont dans une position encore pire. À tel point qu'il sera difficile de corriger les déficits accumulés par les gouvernements régionaux, même au retour de la croissance économique.

LA SCÈNE PROVINCIALE

Les derniers mois ont été pénibles, surtout pour l'Ontario et la Saskatchewan, où la conjoncture a continué de se compliquer. La faillite, puis les démarches de restructuration de Chrysler et de General Motors ont affecté le secteur manufacturier ontarien durant la première partie de 2009. De la même façon, la réduction massive des activités d'extraction de potasse, combinée à la quasi-sécheresse touchant diverses régions de la Saskatchewan, feront perdurer les incidences de la récession mondiale dans cette province. Toutefois, quelques indices permettent de croire que le pire pourrait être passé. Surtout en Alberta et en Colombie-Britannique, où la situation se détériorait depuis le début de 2008. Une remontée des prix dans le secteur de l'énergie et, de façon plus marquée, une baisse des coûts de construction laissent entrevoir des jours meilleurs dans le secteur de l'énergie, à court terme. En outre, le secteur du logement se remet plus tôt que prévu dans l'Ouest canadien. Une abordabilité accrue a stimulé la revente de logements existants et la construction de logements neufs ces derniers mois. À Terre-Neuve-et-Labrador, la croissance économique sera freinée par un net ralentissement de la production d'hydrocarbures aux trois principaux champs (Hibernia, Terra Nova et White Rose). Et malgré les vents négatifs, l'économie du Manitoba s'est montrée résiliente, comme celle des Maritimes, l'Île-du-Prince-Édouard, la Nouvelle-Écosse et le Nouveau-Brunswick. Ces quatre provinces afficheront une modeste croissance économique en 2009.

Toutes les provinces connaîtront une reprise mitigée dans les 12 prochains mois. Ce sont celles qui ont le plus souffert de la récession mondiale qui marqueront les plus forts gains, bien au-delà de 3 p. 100 en moyenne. À la faveur des stimulants budgétaires fédéraux et d'une amélioration de la conjoncture américaine, la reprise se précisera durant la seconde moitié de 2009.

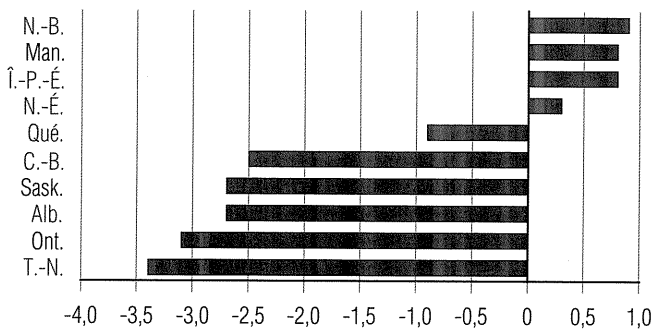
Certes, le secteur commercial externe du Canada central² connaît une profonde récession, mais les faiblesses se concentrent surtout dans les industries de l'automobile, des métaux de première fusion et de la forêt. Le ciel n'est quand même pas tout à fait sombre au Québec : la correction du secteur domiciliaire était attendue, mais l'activité n'a ralenti que modérément et de façon contrôlée. Le marché du travail se restructure, mais les faiblesses ont surtout été observées depuis le début de l'année dans le secteur manufacturier, dans l'administration publique et le secteur des soins de santé et des services sociaux. Les dépenses de consommation ont diminué mais la province parviendra à afficher un rendement positif, modeste, en termes réels pour 2009. Dans toutes les provinces, les entreprises ont freiné leurs projets d'expansion à cause de la crise du crédit, mais le Québec s'en tirera assez bien sur le plan des investissements non résidentiels. Les

chantiers en cours visant l'ajout de moyens de production éolienne d'électricité et l'accroissement de la capacité hydroélectrique atténueront le recul des investissements. Tout compte fait, le Québec devrait subir un recul de 0,9 p. 100 (PIB aux prix de base) cette année, puis un regain, modeste, de 1,8 p. 100 l'an prochain. (Voir les graphiques 1 et 2.) Quant à l'économie ontarienne, elle n'est pas encore sortie de l'auberge, mais au moins le déclin semble terminé. En fait, la glissade qui dure depuis le milieu de 2008 en Ontario devrait faire place à une reprise graduelle d'ici la fin de 2009. Le fond du baril semble avoir été atteint dans les secteurs clés. La production ontarienne de véhicules, chose inattendue, a repris au deuxième trimestre de 2009 et devrait connaître un regain graduel dans un secteur automobile dévasté. Chrysler et General Motors profitant désormais de la protection associée à la faillite que prévoit le Chapitre 11, et la demande des consommateurs étant tombée à son plus bas, le secteur automobile connaîtra en 2010 un taux de reprise dépassant les 10 p. cent. Et en Ontario, favorisée par des réductions d'impôts, la demande des consommateurs se rétablira aussi l'an prochain, comme les investissements

Graphique 1

PIB réel par province en 2009

(variation en pourcentage; en dollars de 2002)

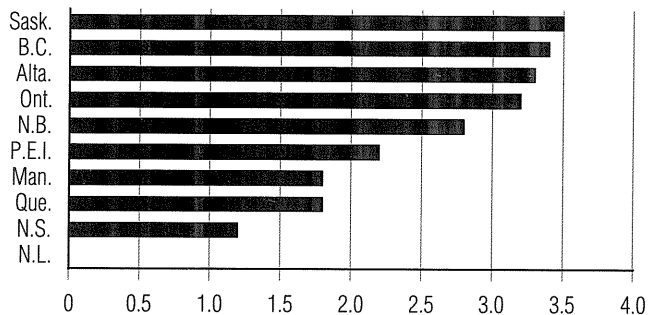


Sources : Le Conference Board du Canada; Statistique Canada.

Graphique 2

PIB réel par province en 2010

(variation en pourcentage; en dollars de 2002)



Sources : Le Conference Board du Canada; Statistique Canada.

privés et la demande de logements. Globalement, le PIB de l'Ontario devrait reculer de 3,1 p. 100 cette année, puis progresser de 3,2 p. 100 en 2010.

Si la grave récession mondiale a vraiment ébranlé bien des provinces, le Canada atlantique s'est maintenu dans une situation généralement bonne. Les trois provinces des Maritimes, ainsi que le Manitoba, échapperont à la récession. Le Nouveau-Brunswick aura une place de choix au palmarès de la croissance cette année. Sous l'effet des stimulants publics visant les nouveaux investissements en infrastructures et des réductions d'impôts sur le revenu, le PIB global devrait y progresser de 0,9 p. 100 cette année. La province donnera encore le ton dans la région de l'Atlantique avec une croissance de 2,8 p. 100 du PIB réel, sauf que la décision de la société Irving Oil de ne pas construire, pour l'instant, une nouvelle raffinerie produisant de l'essence pourrait réduire la croissance l'an prochaine. Pour la Nouvelle-Écosse, les perspectives se maintiennent; le secteur financier se porte bien et l'expansion du champ de gaz naturel extracôtier de Deep Panuke stimulera l'investissement non résidentiel cette année. Ainsi, une croissance globale de 0,3 p. 100 du PIB est prévue cette année. L'an prochain, l'économie fera un gain, modeste, de 1,2 p. 100, vu l'achèvement des travaux de construction associés aux grands projets. L'économie de l'Île-du-Prince-Édouard est assez stable; le secteur public devrait y connaître une forte croissance en 2009. Et l'an prochain, l'Île devrait progresser de 2,2 p. 100 puisque l'activité s'intensifiera dans des secteurs clés, en particulier la construction et la production manufacturière. À cause de l'importante réduction de la production d'hydrocarbures, Terre-Neuve-et-Labrador subira une baisse marquée de l'activité économique réelle cette année, baisse de 3,4 p. 100. Puis en 2010, malheureusement, l'industrie pétrolière régressera de nouveau, si bien que la croissance du PIB y sera nulle l'an prochain.

Au Manitoba, certains secteurs subissent les effets de la crise mondiale. L'activité minière et l'activité manufacturière sont en mauvaise posture, mais dans l'ensemble la province s'en tire mieux que la plupart des autres. Le boom de construction amorcé il y a quatre ans demeurera un moteur de croissance pour la province. L'économie manitobaine s'est montrée résistante; à preuve, la croissance attendue de 0,8 p. 100 en 2009 et de 1,8 p. 100 en 2010. De son côté, la Saskatchewan, paie fort le prix de la grave récession mondiale. La réticence des producteurs agricoles, d'ici et d'ailleurs, à hausser leurs coûts en période difficile a fait tomber la demande mondiale d'engrais. Par conséquent, la production provinciale de potasse a chuté de moitié depuis l'an dernier. La Saskatchewan accusera donc un recul de 2,7 p. 100 du PIB réel en 2009 en raison de la réduction de plus de 10 p. 100 de l'activité minière et d'un net affaïssement de la production agricole. Il est vrai que les provinces tributaires des ressources montrent souvent une croissance irrégulière du PIB réel, si bien qu'une reprise de

l'activité économique de 3,5 p. 100 est prévue pour la Saskatchewan l'an prochain, à la faveur d'une amélioration de la demande internationale de produits primaires.

En Alberta, la récession ne devrait plus sévir longtemps. Les prix du pétrole se sont raffermis ces derniers mois et, ce qui est encore plus important, les coûts de construction ont diminué. La hausse incontrôlée des coûts en main-d'œuvre et en matériaux avait rendu impensables les grands projets énergétiques. Mais là, vu le recul de ces coûts, certaines pétrolières envisagent de relancer des initiatives mises de côté. Le secteur de l'énergie devrait avoir un apport positif à l'économie en 2010, grâce à l'intensification des immobilisations dans les sables bitumineux. L'économie intérieure devrait connaître une reprise l'an prochain, reprise engendrée par des gains au chapitre de l'emploi et une progression plus forte des revenus de travail. Après une contraction de 2,7 p. 100 du PIB réel prévue pour cette année, nous croyons que l'Alberta jouira d'une croissance de 3,3 p. 100 l'an prochain. Pronostic semblable pour la Colombie-Britannique, où le PIB réel cèdera 2,5 p. 100 en 2009, après avoir affiché une progression nulle en 2008. La perspective à court terme est néanmoins favorable pour la Colombie-Britannique. Le marché de l'habitation semble avoir atteint son plancher; la revente et le marché des logements usagés ont progressé ces derniers mois. Une remontée du secteur de la construction, combinée à une modeste reprise de l'activité forestière et manufacturière, favorisera une relance de l'économie l'an prochain. Autre facteur d'importance, la stimulation que suscitent les Jeux Olympiques d'hiver de 2010 contribuera à un bond de 3,4 p. 100 du PIB réel en 2010.

L'ÉCONOMIE AMÉRICAINE

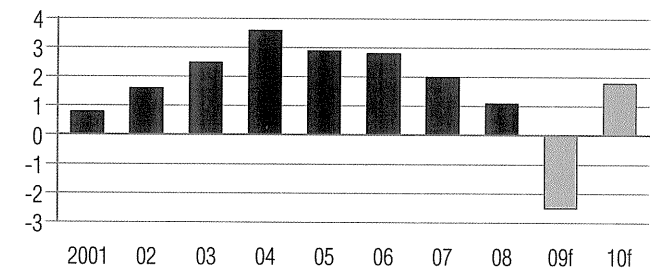
Divers indices récents font entrevoir que la grave récession que connaît l'économie américaine depuis janvier 2008 s'atténue, lentement. Ce sont les signes croissants de stabilité dans le secteur de l'habitation et la confirmation que les dépenses des ménages commencent à se replacer qui, au premier chef, permettent de formuler une prévision optimiste. La prévision actuelle établit à 1 p. 100 le recul du PIB réel au second trimestre (annualisé), suivi d'un regain et d'une progression de 1,7 p. 100 au troisième trimestre, puis de 1,2 p. 100 dans le dernier trimestre de l'année. En 2010, l'économie devrait progresser modérément, soit de 1,8 p. 100. (Voir le graphique 3.)

Les efforts de la Réserve fédérale américaine et du gouvernement fédéral profitent enfin aux marchés de l'habitation. L'achat de créances hypothécaires par la Réserve fédérale et sa décision d'établir le taux des fonds fédéraux près de zéro ont ramené les taux hypothécaires bien en-dessous de 5 p. 100, des taux affichés à 6 p. 100 l'automne dernier. Cela, conjugué au seuil minimal auquel se trouvent les prix des logements, a suscité une relance

Graphique 3

Timide gain à prévoir aux É.-U.

(PIB américain réel, variation en pourcentage)



p = prévisions

Sources : Le Conference Board du Canada; Bureau of Economic Analysis (BEA) des États-Unis.

récente des ventes de logements neufs et existants. Plus encourageant encore, les stocks de logements neufs sont redescendus aux niveaux précédant l'éclatement de la bulle résidentielle. Cependant, les prix des logements sont restés en baisse dans diverses parties du pays, entre autres en raison du nombre élevé de ventes après saisie. Les maisons ainsi écoulées subissent une réduction de 25 p. 100 du prix dans la plupart des marchés, un phénomène qui a pour effet de faire baisser les prix de toutes les propriétés, même celles ne faisant pas l'objet d'une telle procédure.

La forte diminution des dépenses de consommation enregistrée vers la fin de 2008 est aussi arrêtée. Vu les difficultés qui prévalent dans le marché du travail, les dépenses ne sont certainement pas près d'augmenter rapidement, mais elles se sont au moins stabilisées, relativement. L'amélioration des marchés boursiers et un ralentissement du rythme de suppression d'emplois ont permis un gain, fort bienvenu, quant à la confiance des consommateurs, laquelle avait touché un creux durant l'hiver. Les ménages ont recommencé à épargner (le taux d'épargne approchait les 6 p. 100 en avril), un atout qui a en partie dissipé la panique que montraient les consommateurs et qui favorisera une progression des dépenses. Évidemment, si le taux d'épargne grimpe encore, la croissance des dépenses s'en trouvera freinée.

Les dépenses en infrastructures prévues pour améliorer les routes et les ponts dans l'ensemble du territoire doivent s'amorcer en seconde moitié de 2009; cette initiative nourrira la reprise économique. Ces dépenses devraient en fait aider à compenser pour les coupures décrétées par de nombreux gouvernements régionaux ou locaux en raison de la baisse des impôts perçus.

Les grands risques inhérents à la prévision et les facteurs qui limiteront la vitesse de la reprise sont les investissements privés et la demande extérieure. Les dépenses réelles en équipement devraient chuter de près de 19 p. 100 cette année, tandis qu'une croissance inférieure à 1 p. 100 est attendue en 2010. La faible

progression des profits, associée au resserrement des conditions de crédit, a amené les entreprises à réduire de beaucoup leurs stocks, ainsi que leurs dépenses d'investissement. Dans certains secteurs d'activité, les réductions de stocks ont été si fortes que la moindre poussée de la demande au cours des mois qui viennent pourrait vraiment provoquer une amélioration de l'activité manufacturière à court terme.

Les perspectives sont aussi moins positives sur le plan des exportations américaines : nous y prévoyons un recul de 12,2 p. 100 des exportations réelles cette année. La demande étrangère souffre parce que l'Europe, en grande partie, et le Japon connaissent une grave récession. Même la faiblesse relative du dollar américain n'aura pas permis de contrebalancer les effets de la récession mondiale sur le marché des exportations. Heureusement, la demande de produits américains en Chine et dans d'autres marchés émergents où les gouvernements ont implanté d'importantes mesures de stimulation, devrait freiner la chute des exportations à court terme.

LA POLITIQUE MONÉTAIRE

Le système bancaire et le marché hypothécaire canadiens sont en bien meilleur état que ceux de notre voisin du Sud et les autorités politiques y sont intervenues avec d'autant moins de vigueur. Si la Banque du Canada s'est appliquée à mettre des liquidités additionnelles à la disposition du milieu financier par la voie de transactions à court terme et en abaissant les taux, elle a jusqu'ici évité de devoir jouer sur les volumes (en somme, émettre davantage de billets). Dans ce contexte, l'annonce faite en avril par la Banque du Canada qu'elle maintiendrait le taux du financement à un jour près de zéro jusqu'en juin de l'an prochain avait de quoi étonner et, à tout dire, a pratiquement immobilisé l'élément stratégique clé de la Banque pour plus d'un an.

Entre mars 2008 et aujourd'hui, la Banque a abaissé son principal taux directeur de 3,5 p. 100 à seulement 0,25 p. 100. La dernière réduction de 0,25 point de pourcentage est survenue le 21 avril, avec l'annonce, par la Banque, que le taux cible du financement à un jour avait effectivement atteint son plancher. La Banque déploierait toutefois que l'abaissement de son principal taux directeur n'avait pas tout l'effet d'entraînement escompté sur les taux du marché du crédit. Aussi, lors de son annonce d'avril, elle offrit la garantie additionnelle de conserver les taux à ce bas niveau jusqu'en juin 2010. La formule a été efficace, aidant à faire baisser les taux des prêts commerciaux et les taux hypothécaires, tant pour ce qui est du court que du long terme. Mais cette politique comporte des risques; la transmission de la politique monétaire à l'économie est un processus relativement long, les estimations voulant qu'il faille compter environ 18 mois entre la révision des taux d'intérêt et le moment où se fait pleinement sentir l'impact sur le PIB réel. Il est vrai que la Banque du Canada a indiqué que

sa promesse de ne pas changer les taux d'intérêt avant l'an prochain s'appuie sur l'hypothèse que l'inflation correspondra aux attentes, mais elle perdrait beaucoup de crédibilité si elle devait hausser les taux plus tôt que prévu. Or, la crédibilité étant la clé de la réussite d'une politique monétaire, il est très improbable que le taux de la Banque ne bouge d'ici juin 2010.

La politique de taux fixe de la Banque ne devrait pas susciter de vive controverse, du moins cette année. Une faible croissance économique, le dollar canadien à la hausse et le niveau peu élevé des produits de base contribueront tous à contenir l'inflation d'ici la fin de 2009. Aussi, même si les prix de l'énergie devraient augmenter dans les prochains mois, ils resteront inférieurs aux niveaux atteints en 2008. Puis, s'il est probable que les taux d'inflation sur 12 mois seront négatifs au cours des quelques mois qui viennent, le Canada ne risque pas de se retrouver en déflation prolongée. Après une progression de 2,4 p. 100 en 2008, l'inflation selon l'IPC devrait n'ajouter que 0,8 p. 100 en 2009. Quant à 2010, de meilleurs résultats de l'économie et la hausse continue des prix de l'énergie devraient pousser l'inflation des prix de 2,6 p. 100, vers la limite supérieure de la zone de confort de la Banque.

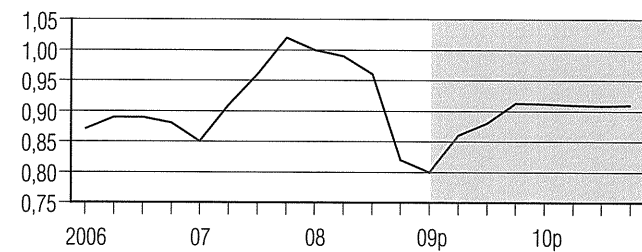
Ces derniers mois, suivant son comportement de longue date, le huard s'est remis à fluctuer selon les mouvements des prix de l'énergie et d'autres produits de base. Ce comportement avait différé, dans la seconde moitié de 2008 et au début de 2009, surtout à cause des réactions des marchés de change étrangers par rapport au billet vert américain durant le cycle économique, non pas par rapport à leur réaction vis-à-vis de la devise canadienne elle-même. Même s'ils sont l'épicentre de la récession mondiale, les États-Unis demeurent pour les investisseurs un refuge sûr en situation d'instabilité ou d'incertitude; cela a favorisé un net renforcement du dollar américain l'automne dernier et jusqu'au premier trimestre de 2009. Mais comme l'économie américaine et l'économie mondiale commencent à se stabiliser, le facteur «refuge» perd du poids et le billet vert est moins fort. Cette dépréciation est assurément responsable en partie de la remontée des prix de l'énergie et de la valeur du huard. Le dollar canadien devrait donc valoir en moyenne 0,86 \$US en 2009, ce qui est quand même 8,3 p. 100 de moins que l'an dernier. Le huard devrait s'apprécier de façon continue dans la prochaine période, s'établissant en moyenne à 0,91 \$US en 2010. (Voir le graphique 4.)

LA POLITIQUE BUDGÉTAIRE

La situation financière du gouvernement fédéral a radicalement changé. Après 11 exercices consécutifs de surplus qui semblaient amener d'heureuses surprises d'année en année, le gouvernement fait maintenant face à des recettes inférieures aux attentes. En mai dernier, le gouvernement annonçait que le déficit fédéral pour 2009-2010 serait de 16 milliards de dollars plus élevé que prévu,

Graphique 4

Le huard avoisinera les 91 cents U.S. en 2010
(taux de change É.-U./Canada)



p = prévisions

Sources : Le Conference Board du Canada; Statistique Canada.

atteignant de ce fait les 50 milliards de dollars. Du jamais vu. Alors que les recettes continuent de diminuer, le gouvernement fédéral s'est engagé par de nombreuses mesures de stimulation afin d'aider à atténuer les effets du cycle économique actuel. En plus des éléments automatiques de stabilisation, le gouvernement a accru la générosité du programme d'assurance emploi et a offert des réductions d'impôt aux particuliers et aux entreprises, tout en dépensant par la voie d'autres incitatifs. Le plus important, c'est le plan de stimulation du gouvernement fédéral axé sur les infrastructures, qui devrait (avec la participation des provinces) engendrer quelque 12 milliards de dollars de dépenses de construction neuve pour l'exercice 2009-2010. Compte tenu du temps nécessaire à l'analyse et à l'approbation d'un projet type, ainsi que du délai de construction, l'impact sur l'activité de construction devrait se matérialiser de 2009 à 2012, les activités se trouvant à leur plus fort en 2010.

Même si les effets de la récession perdureront, nous estimons que le gouvernement fédéral demeure en position financière structurellement bonne. Car le gouvernement fédéral devrait pouvoir rééquilibrer ses livres une fois l'économie opérant à pleine capacité, au lendemain des mesures fiscales temporaires, des autres incitatifs et du plan de stimulation. Par contre, les gouvernements régionaux, de façon collective, sont en bien moins bonne posture.

Les provinces doivent faire face aux coûts accrus des programmes sociaux et à l'obligation de contribuer aux dépenses d'infrastructures autant que le gouvernement fédéral, elles portent le poids de leurs propres plans de stimulation et subissent une diminution de leurs recettes sur les revenus des entreprises et des particuliers. De plus, dans certaines provinces, ces difficultés ont été exacerbées par l'effet direct du recul des prix des produits de base sur les redevances. Il sera difficile pour les collectivités régionales de composer avec des pertes de recettes, fortes et immédiates. Jusqu'à tout récemment, la plupart d'entre elles augmentaient leurs dépenses à un rythme jamais atteint tout en dégagant des surplus en raison d'une croissance plus vive que prévu des recettes. Dans la situation présente et vu la pression toujours plus forte que subissent les budgets de soins de santé, la relance économique envisageable à moyen terme ne permettra pas, à elle seule, aux gouvernements régionaux de renouer avec les surplus. Par conséquent, les provinces devront, tôt ou tard, hausser les impôts ou réduire leurs dépenses pour s'assurer un équilibre budgétaire.

Pour l'ensemble des paliers de gouvernement, les dépenses courantes réelles totales en biens et services n'ont pas progressé lors du premier trimestre de 2009. Malgré l'intense encouragement et les stimulants budgétaires, les gouvernements, tant fédéral que provinciaux, montrent une plus grande prudence à l'égard des dépenses dans leurs propres programmes (en bonne partie les dépenses de traitements et salaires des fonctionnaires). Au total, les dépenses réelles en biens et services devraient croître de 2,3 p. 100 cette année, comparativement à 3,7 p. 100 en 2008. L'essor escompté des dépenses en infrastructures n'est pas apparu au premier trimestre de l'année, mais nous nous attendons à des gains importants d'ici la fin de 2009 et durant toute l'année 2010. La formation de capital fixe réelle du gouvernement devrait progresser de 15,6 p. 100 en 2009, puis de 11,5 p. 100 en 2010.

Newfoundland and Labrador

- Production in primary and manufacturing industries will plunge in 2009, pushing GDP growth into negative territory.
- Investment spending will expand strongly this year thanks to extensive non-residential construction.

Real GDP

2009	Growth -3.4	Ranking #10
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2010	Growth 0.0	Ranking #10
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Credit Quality

A

Standard & Poor's

Retail Sales

2009	Growth -2.4	Ranking #2
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2010	Growth 2.3	Ranking #9
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Government & Background Information

Premier Danny Williams

Next election 2012

Population (2009:2) 508,825

Government balance (2009-10) -\$750 billion

Sources: The Conference Board of Canada; Newfoundland and Labrador Finance.

Economic Storm Pounding Province

by Kris Shaw

An economic tempest continues to rage across Newfoundland and Labrador. Job losses and production cuts will be steeper here than in any other province. The oil and gas sector—which accounts for over one-fifth of the province's gross domestic product is uncomfortably positioned in the eye of the storm. Natural declines in production, expansion-related slowdowns, low crude oil prices, and ongoing maintenance will induce an 18 per cent decline this year in mineral fuels output. Crude oil production is expected to continue shrinking at roughly 5 per cent per year over the remainder of the medium term.

Offshore oil production is already 13.7 per cent behind last year's pace, and this gap is expected to widen over the rest of the year.

Cyclical forces have exacerbated structural weaknesses in the pulp and paper industry. The province's one remaining mill recently extended a partial shutdown indefinitely. Including the closure at Grand Falls, newsprint production in Newfoundland

and Labrador was halved over the first six months of 2009. Demand for processed seafood has dried up as customers reduce their spending on non-staples. In response, the entire shrimp processing industry was idled for seven weeks this summer. On the whole, a 9.5 per cent decline in real manufacturing output is expected this year. Production will increase 5.2 per cent in 2010 once markets rebound.

The net impact of the downturn on the provincial economy will be substantial. A 3.4 per cent decrease in real GDP is anticipated this year, the largest contraction on record. The province will also endure the slowest recovery of all the provinces. Real output is forecast to remain flat in 2010. A stagnant real economy will cause labour markets to deteriorate considerably over the next two years. Indeed, the provincial unemployment rate will surpass 16 per cent by year's end.

Despite the gloomy economic outlook, nominal private and public non-residential construction is expected to expand 42 per cent in 2009. The nickel processing facility at Long Harbour, the White Rose expansion, and government infrastructure spending are the main contributors to this growth. On the other hand, housing starts are expected to retreat significantly after climbing to a 20-year high in 2008.

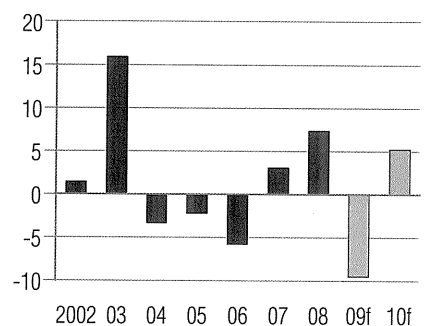
Economic Indicators (2002 \$; percentage change)

	2008	2009f	2010f
Real GDP (basic prices)	-0.1	-3.4	0.0
Consumer Price Index	2.9	0.6	2.5
Personal disposable income	-1.0	1.7	2.2
Employment	1.4	-2.8	0.2
Unemployment rate (level)	13.3	15.5	15.9
Retail sales	7.6	-2.4	2.3
Average weekly wages	3.9	1.0	1.6
Population	0.1	0.1	0.1

f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Manufacturing Output Slips in 2009 (percentage change, 2002 \$)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

MANUFACTURING INDUSTRIES

Productive activity in Newfoundland's most important manufacturing segments—food processing, newsprint, and petroleum refining—will ease in 2009. As a result, real manufacturing output is expected to shrink 9.5 per cent, the largest decline in any province except Ontario. A healthy rebound of 5.2 per cent is projected for 2010 once markets for manufactured goods improve.

Non-residential construction will expand 42 per cent in 2009 thanks to a large inventory of major capital projects.

The pulp and paper industry has the dubious distinction of leading the way down in 2009. Demand for the province's paper products is mired in a steady decline due largely to the rise of digital media and greater competition from emerging markets. Moreover, mills in Newfoundland operate at a significant productivity disadvantage relative to more modern facilities. These structural problems, crippling in their own right, have been exacerbated by a sharp cyclical downturn. Consequently, significant production cuts have been made at the Corner Brook mill. An eight-week shutdown of one machine was extended indefinitely at the end of the second quarter, eliminating 15 per cent of the workforce. Including the earlier closure at Grand Falls-Windsor, output capacity in Newfoundland's newsprint sector was halved over the first six months of 2009.

Food processors, unlike auto assemblers or pulp mills, are typically insulated from the worst impacts of a recession. Indeed, food manufacturing is the only sector in Canada in which the value of shipments has not shrunk since last October. Unfortunately, Newfoundland's food processors tend to

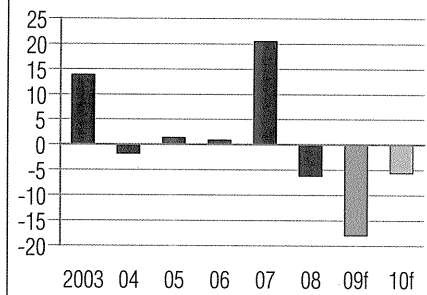
be somewhat more vulnerable to market conditions. This is certainly the case for the province's shrimp processors, all of whom temporarily shut down at the beginning of June. Falling demand in export markets (especially in Europe) and adverse currency fluctuations had made operations unviable. Upward of 2,000 plant employees were out of work until a new pricing agreement was reached with harvesters in mid-July.

PRIMARY INDUSTRIES

The plight of Newfoundland and Labrador's primary industries is another key economic theme for 2009 and 2010. The province's prospects are closely connected to the fortunes of its oil and gas sector. Indeed, the sector accounts for over one-fifth of total GDP in the province. Unfortunately, considerable natural declines will occur at the major offshore sites this year. Hibernia, Terra Nova, and White Rose have all matured, and output will continue dropping at those sites. Data from the first five months of the year indicate that offshore oil production is already 13.7 per cent behind last year's pace. This gap is expected to widen over the rest of the year, partly because a month-long production halt is needed at White Rose to allow for expansion activities and other modifications. Overall, real mineral fuels output will decrease 18 per cent in 2009. It is difficult to overstate the significance of this decline. If the mineral fuels sector were excluded from GDP, the numbers would actually show Newfoundland's economy set to grow 1.2 per cent this year. As it is, real GDP will contract more severely here than in any other province.

Production may have peaked at the main oil fields, but operations will begin at smaller sites over the next few years. The extension from White Rose to North Amethyst is progressing as planned. It is the first of three satellite fields to be developed and

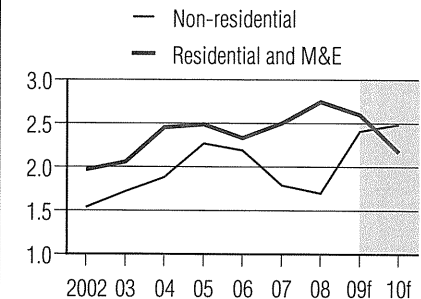
Deep Slump Ahead for Oil and Gas Production
(percentage change, 2002 \$)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Investment Sustained by Non-Residential Sector
(\$ billions)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

the operator is targeting late 2009 or early 2010 as a start-up date. But even if all expansion projects proceed as hoped, they will only serve to soften the fall. Mineral fuels output is expected to decrease another 5.6 per cent in 2010, and will continue falling over the rest of the forecast.

Newfoundland's other resource industries are also struggling. Metal miners are expected to slash production by 16.4 per cent this year. The sector will bounce back strongly, however, once conditions in commodity markets improve. Other primary sectors are feeling the effects of downstream weaknesses. For example, forestry output

will contract by 22.9 per cent in 2009 because woodland operations connected to pulp and paper mills have been curtailed. And after three years of strong growth, a decline of 3.2 per cent is anticipated for fishing and trapping in 2009. Shrimp harvesters, inactive during the two-month processing shutdown, will be among the hardest hit.

INVESTMENT

The bright side of Newfoundland's economic situation is the bustling investment profile. Non-residential construction will soar over the forecast horizon thanks to a large inventory of major capital projects. Combined spending in the private and public sectors is forecast to expand 42 per cent in 2009 alone. The provincial government will contribute to this growth by increasing the infrastructure budget by 50 per cent. This stimulus is directed primarily toward roads, educational buildings, and health-care facilities. The North Amethyst project will also contribute to investment growth this year. Installation of the subsea tieback

should be completed by early 2010 at the latest. ("Tiebacks" link new, often smaller sources to established facilities.) And since White Rose has two other extensions, off-shore construction should pick up again in later years. The entire expansion plan has an estimated cost of \$3.5 billion.

Vale Inco's nickel processing facility in Long Harbour provides another multi-year boost to investment. The plan for 2009 includes site establishment and infrastructure development. Construction of the wharf and plant is scheduled to begin in 2010. At its peak, this project is expected to create 1,600 construction jobs each year. An extensive backlog of other projects means that a strong pace will be maintained after 2009. Non-residential expenditures are expected to double between 2010 and 2013.

The other components of investment will not perform as well. Machinery and equipment purchases are expected to drop 10.5 per cent this year and 3.8 per cent in 2010 (though some momentum will be regained in the following years). The story

is even worse for residential construction. Employment losses, slower growth in disposable income, and tighter credit conditions are all playing a role in weakening the housing market. Starts are forecast to fall from a 20-year high of 3,300 last year to 2,800 this year. The level will then fall below 2,000 units in 2010, largely because recent building activity has outpaced the province's demographic needs.

Forecast Risks

Short term

- Because issues in the cold-water shrimp industry were resolved sooner than expected, manufacturing output may not shrink as quickly as forecast.

Medium term

- Many companies have deferred mine expansions or other resource developments. If these are ultimately cancelled, mining output will grow more slowly in the future.

Source: The Conference Board of Canada.

Key Economic Indicators: Newfoundland and Labrador

(forecast completed Jul. 16, 2009)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2009:4	2009	2010
GDP at market prices (current \$)	30,518 -0.9	31,478 3.1	32,145 2.1	31,490 -2.0	28,922 -8.2	28,880 -0.1	29,332 1.6	29,926 2.0	29,987 0.2	31,408 6.6
GDP at basic prices (current \$)	28,897 -0.7	29,843 3.3	30,505 2.2	29,888 -2.0	27,358 -8.5	27,306 -0.2	27,744 1.6	28,317 2.1	28,353 0.1	29,783 7.1
GDP at basic prices (constant \$ 2002)	18,138 1.2	18,039 -0.5	17,912 -0.7	17,907 0.0	17,671 -1.3	17,379 -1.7	17,240 -0.8	17,254 0.1	17,242 -0.1	17,999 -0.1
Consumer Price Index (2002 = 1.0)	1.124 0.8	1.145 1.9	1.161 1.4	1.142 -1.7	1.133 -0.8	1.147 1.2	1.156 0.8	1.163 0.6	1.169 0.5	1.188 0.6
Implicit price deflator— GDP at basic prices (2002 = 1.0)	1.593 -1.9	1.654 3.8	1.703 2.9	1.669 -2.0	1.548 -7.2	1.571 1.5	1.609 2.4	1.641 2.0	1.644 0.2	1.655 7.2
Average weekly wages (\$, industrial composite)	711.1 0.1	727.4 2.3	735.2 1.1	743.0 1.1	743.2 0.0	730.9 -1.6	733.3 0.3	738.5 0.7	740.4 0.3	729.2 3.9
Personal income (current \$)	15,315 -4.9	15,437 0.8	15,503 0.4	15,740 1.5	15,767 0.2	15,598 -1.1	15,664 0.4	15,795 0.8	15,872 0.5	15,499 -1.3
Personal disposable income (current \$)	12,254 -6.2	12,461 1.7	12,533 0.6	12,735 1.6	12,749 0.1	12,616 -1.0	12,672 0.4	12,781 0.9	12,826 0.3	12,496 -1.0
Personal savings rate	1.22	2.14	0.33	2.55	3.34	2.70	2.27	2.36	2.18	1.56
Population of labour force age (000s)	425 0.3	426 0.1	426 0.2	427 0.2	428 0.1	428 0.1	429 0.1	429 0.1	430 0.1	426 0.4
Labour force (000s)	255 1.9	255 0.2	252 -1.3	253 0.2	253 0.2	252 -0.5	253 0.5	254 0.3	254 0.2	254 1.0
Employment (000s)	222 2.1	222 -0.1	218 -1.9	218 0.0	216 -0.9	214 -1.0	213 -0.5	213 0.0	213 0.3	220 1.4
Unemployment rate	12.7	13.0	13.6	13.7	14.7	15.1	15.9	16.1	16.1	13
Retail sales (current \$)	6,980 3.6	6,981 0.0	7,212 3.3	7,084 -1.8	6,931 -2.2	6,836 -1.4	6,882 0.7	6,943 0.9	6,973 0.4	7,064.2 8
Housing starts (units)	2,859 -9.7	3,106 8.7	3,414 9.9	3,665 7.4	3,668 0.1	2,900 -20.9	2,417 -16.6	2,164 -10.5	1,822 -15.8	3261.0 23

White area represents forecast data.

All data are in millions of dollars, seasonally adjusted at annual rates, unless otherwise specified.

For each indicator, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada; CMHC Housing Time Series Database.

Prince Edward Island

- Prince Edward Island's economy will fare better than the national average in 2009.
- A delay in the implementation of key wind energy and government infrastructure projects until 2011 will postpone a major recovery in the Island's economy until late 2010.

Real GDP

2009	Growth 0.8	Ranking #3
2010	Growth 2.2	Ranking #6

Credit Quality

A
Standard & Poor's

Retail Sales

2009	Growth -2.6	Ranking #5
2010	Growth 2.6	Ranking #7

Government & Background Information

Premier	Robert Ghiz
Next election	2011
Population (2009:2)	140,638
Government balance (projected 2009-10)	-\$85.3 million
Sources: The Conference Board of Canada; P.E.I. Finance.	

P.E.I. Among Growth Leaders in 2009

by Sabrina Browarski

Although the after-effects of the global financial crisis are taking a toll on the Canadian economy, Prince Edward Island will remain largely immune to the broader associated trade shocks. This year, the Island economy will outpace all but two of its provincial competitors—New Brunswick and Manitoba—as it posts growth of 0.8 per cent in real gross domestic product. That number will rise to 2.2 per cent in 2010.

Arguably, public sector stimulus is the major contributing factor that prevented the Island from tipping into recession in 2009. Government spending on goods and services is forecast to rise by nearly 9 per cent in 2009. Furthermore, a new \$510-million capital spending plan, along with ongoing wind energy investment by the province and Suez Energy, will provide a sizable lift to an otherwise faltering private investment landscape.

Several key Island sectors will face an uphill battle in 2009 as American consumer demand retreats. The agri-food industry (which exports nearly 52 per cent of products to the United States) as well as the domestic fishing and trapping industry, will be disproportionately affected. Manufacturing

activity will also retreat mildly, although a surge in aerospace-related work will provide momentum to both output and employment as 2010 unfolds.

With 10 per cent growth in sales, aerospace manufacturers will continue to exploit opportunities in new markets and ramp up hiring of skilled workers.

Employment on the Island is projected to fall by 2.1 per cent this year. The unemployment rate will rise to a peak of 12.8 per cent in early 2010 as jobs are cut—a result of severe cutbacks in corporate profits. Facing weaker job prospects, consumers will retrench. Growth in total consumer expenditures is expected to be only marginally positive in real terms.

AGRICULTURE RELIES ON SALES OF NAME BRAND PRODUCTS

The United States remains the dominant importer of Island agri-food exports, accounting for nearly 85 per cent of sales of processed potatoes and seafood. With approximately 61 per cent of P.E.I.'s total exports sourced from the agri-food sector, stable demand by supermarkets and fast-food restaurants for name brands such as Cavendish and McCain will enable the agriculture sector to eke out growth of

Economic Indicators

(2002 \$; percentage change)

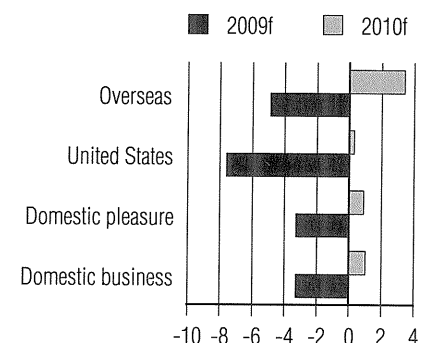
	2008	2009f	2010f
Real GDP (basic prices)	1.0	0.8	2.2
Consumer Price Index	3.4	0.1	2.7
Personal disposable income	4.5	2.0	2.5
Employment	1.2	-2.1	0.3
Unemployment rate (level)	10.7	12.5	12.8
Retail sales	5.6	-2.6	2.6
Average weekly wages	2.2	1.8	1.1
Population	1.0	0.9	0.5

f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Visitors Eschew P.E.I. in 2009

(overnight visits, percentage change)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

0.3 per cent this year, even with the U.S. downturn. Demand for potato granules appears, similarly, to be recession-proof.

U.S. CONSUMERS CUT BACK ON LUXURY SEAFOOD PRODUCTS

By contrast, the Island's fishing and trapping industry will suffer a 4.2 per cent contraction as struggling U.S. households choose to forgo relatively expensive lobster purchases. The drop comes after the industry grew by an astonishing 14 per cent in 2008. Efforts are now under way to have P.E.I. lobster certified as a "sustainable catch" by the London-based Marine Stewardship Council. Certification would open up the European Union markets to the Island's lobster products, which could bolster demand in the medium term.

Mussels—which are less expensive than lobster—exhibit less price volatility, and will provide some offset to flagging lobster exports. Curiously, a May 27 article by New York Times food columnist Mark Bittman, who critiqued Island mussels as "kind of bland," has generated a groundswell of support for the Island's product. Publicized rebuttals have highlighted Prince Edward Island as a destination for travelling gourmets and have generated favourable publicity for P.E.I. mussels.

WEAK DEMAND FOR INDUSTRIAL MACHINERY HITS ISLAND'S MANUFACTURERS

Island manufacturing activity will see a 1.3 per cent decline in 2009, as most sub-categories of machinery and equipment (M&E) and industrial goods face weak demand south of the border. However, performance in higher value-added export products—such as jet turbines, power transmission, and specialized food-manufacturing equipment—will buck the general downward trend of M&E sales in the United States.

In fact, 2008 marked a significant milestone for the Island's aerospace sector as sales rose 10 per cent to hit \$310 million! With that kind of growth, aerospace manufacturers will continue to exploit opportunities in new markets and ramp up hiring of skilled workers. Thanks to strong aerospace and niche food machinery manufacturing performance, growth in manufacturing is forecast to rebound by 2.3 per cent in 2010.

A WEAK YEAR FOR TOURISM

The current year could prove to be a difficult one for tourism on the Island, according to data from the Conference Board's Canadian Tourism Research Institute. An estimated 24,000 fewer overnight visits to the Island are forecast for 2009, representing a nearly 4 per cent drop in total travel from 2008 levels. Declines are expected for both business and pleasure travellers from Canada and overseas in the coming year.

ISLAND CONSUMERS STILL BUYING

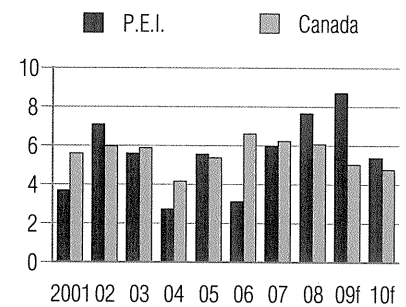
The effects of lower corporate profits will naturally trickle into the Island's real economy, although to a lesser degree than among other Canadian provinces. This will cause firms to scale back employment by 2.1 per cent in 2009, with only a modest 0.3 per cent rebound expected in 2010.

The United States remains the dominant importer of Island agri-food exports, accounting for nearly 85 per cent of sales of processed potatoes and seafood.

However, the raw employment numbers belie more favourable performances in key pockets of the Island economy. For instance, the manufacturing sector has benefited from strong hiring and wage growth, particularly in the aerospace sector. Vector Atlantic currently employs 375 people, and a new

Government Spending Accelerates at Breakneck Pace

(percentage change, \$ millions)

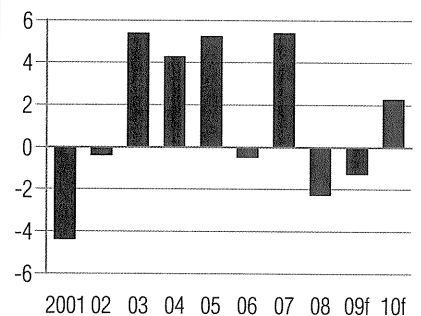


f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Manufacturing Poised to Rebound

(percentage change, 2002 \$)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

aerospace company, Action Aero, is now based in Charlottetown. In all, the Island's nine aerospace firms employ 850 skilled workers, with average industry salaries estimated at \$40,000. Thanks to such concentrated high-growth sectors, personal disposable income will still advance, albeit by a modest 2 per cent this year as the broader labour market loosens.

Islanders will scale back spending growth this year to 0.9 per cent in response to softer labour markets. Expenditures on rent and other services will remain relatively robust, although Islanders will trim their purchases of consumer goods by 0.2 per

cent this year. With a rebound in employment and personal disposable income forecast for 2010, growth in consumer spending will total 3 per cent.

INVESTMENT RETREAT OFFSET BY LANDMARK PUBLIC PROJECTS

Fiscal stimulus will play a key role in bolstering domestic demand in Prince Edward Island this year, ensuring that the province doesn't slip into recession in lockstep with the global economy. The P.E.I. government has committed to an unprecedented five-year, \$510-million capital spending plan and a six-year, \$27.5-million Island Community Fund. These projects will receive up to \$60 million in assistance between 2010 and 2014 from the federal Gas Tax Fund. Of the total federal assistance package, \$30 million will be directed to provincial water and sewer projects,

\$18 million to other municipal services, and the remaining \$12 million to "soft-cost" (or non-construction) projects.

As a result of these initiatives, public capital expenditures are forecast to grow in 2009. Impressively, the growth follows the largest, single-year government infrastructure investment package—\$31.6 million—in 2008–09. Government spending on goods and services will expand at a breakneck pace of 8.7 per cent in 2009, even after growth of 7.6 per cent in 2008!

Although total investment spending in Prince Edward Island is forecast to contract by nearly 4 per cent this year and by a further 1.8 per cent next year, the province's new \$510-million capital spending plan, coupled with a landmark \$1-billion provincial wind energy strategy, will lead to a sharp 9 per cent turnaround in investment intentions as early as 2011.

Forecast Risks



- Domestic travellers might substitute away from more expensive overseas vacations in favour of local visits to Prince Edward Island, providing upside risk to the commercial services industry this year.



- Prince Edward Island could benefit from up to \$60 million for infrastructure renewal under the Atlantic Gateway trade initiative.

Source: The Conference Board of Canada.

Key Economic Indicators: Prince Edward Island

(forecast completed Jul. 16, 2009)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2009:4	2009	2010
GDP at market prices (current \$)	4,605 1.0	4,760 3.4	4,812 1.1	4,607 -4.3	4,725 2.6	4,781 1.2	4,864 1.7	4,943 1.6	4,940 -0.1	4,999 3.5
GDP at basic prices (current \$)	4,199 1.5	4,351 3.6	4,402 1.2	4,206 -4.4	4,333 3.0	4,387 1.2	4,467 1.8	4,541 1.7	4,531 -0.2	4,575 3.2
GDP at basic prices (constant \$ 2002)	3,782 0.7	3,774 -0.2	3,785 0.3	3,829 1.2	3,811 -0.5	3,810 0.0	3,823 0.3	3,843 0.5	3,872 0.7	3,908 2.2
Consumer Price Index (2002 = 1.0)	1,149 0.4	1,184 3.0	1,199 1.3	1,167 -2.6	1,151 -1.4	1,170 1.6	1,182 1.1	1,189 0.6	1,195 0.5	1,205 2.7
Implicit price deflator— GDP at basic prices (2002 = 1.0)	1,110 0.8	1,153 3.8	1,163 0.9	1,098 -5.6	1,137 3.5	1,151 1.3	1,168 1.5	1,182 1.1	1,170 -0.9	1,171 1.0
Average weekly wages (\$, industrial composite)	585.9 -0.8	593.9 1.4	596.2 0.4	603.6 1.2	611.8 1.4	601.7 -1.6	602.8 0.2	606.3 0.6	607.7 0.2	612.3 1.1
Personal income (current \$)	4,030 1.6	4,026 -0.1	4,054 0.7	4,104 1.2	4,115 0.3	4,109 -0.2	4,134 0.6	4,166 0.8	4,198 0.8	4,238 2.6
Personal disposable income (current \$)	3,221 1.8	3,235 0.4	3,261 0.8	3,300 1.2	3,306 0.2	3,302 -0.1	3,323 0.6	3,350 0.8	3,372 0.6	3,403 2.5
Personal savings rate	-7.48	-8.33	-8.88	-7.20	-6.15	-6.85	-7.32	-7.22	-7.40	-7.31
Population of labour force age (000s)	114 0.1	114 0.3	115 0.6	115 0.4	115 0.0	116 0.4	116 0.2	116 0.2	116 0.1	117 0.9
Labour force (000s)	79 1.6	79 0.2	79 -0.3	78 -0.4	78 -0.8	79 1.2	79 0.2	79 0.0	79 0.0	79 0.7
Employment (000s)	71 1.5	71 0.0	70 -0.8	69 -1.0	69 -1.3	69 0.5	69 -0.1	69 0.0	69 0.0	69 0.3
Unemployment rate	10.3	10.4	10.8	11.4	11.9	12.5	12.8	12.8	12.8	12.8
Retail sales (current \$)	1,707 2.9	1,727 1.2	1,742 0.9	1,708 -2.0	1,669 -2.3	1,664 -0.3	1,679 0.9	1,692 0.8	1,705 0.7	1,719 2.6
Housing starts (units)	626 -27.1	754 20.5	747 -0.9	721 -3.5	476 -34.0	767 61.1	682 -11.0	646 -5.3	640 -1.0	655 1.9

White area represents forecast data.

All data are in millions of dollars, seasonally adjusted at annual rates, unless otherwise specified.

For each indicator, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada; CMHC Housing Time Series Database.

Nova Scotia

- Residential construction investments whittle down gains in public and private construction investment.
- Increased program spending by government helps prop up recession-battered economy.

Real GDP

	Growth	Ranking
2009	0.3	#4

	Growth	Ranking
2010	1.2	#9

Credit Quality

A+
Standard & Poor's

Retail Sales

	Growth	Ranking
2009	-3.4	#7

	Growth	Ranking
2010	1.9	#10

Government & Background Information

Premier	Darrell Dexter
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Next election	2014
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Population (2009:2)	939,475
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Government balance (2009-10)	unavailable
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Source: The Conference Board of Canada.

Navigating Slowly Through the Global Recession

by Prince Owusu

In spite of the defeat of the provincial budget and its associated economic rescue plan (a defeat that culminated in an election and the formation of a new government), Nova Scotia will skirt recession thanks to increased program spending put in place by the government before being voted out of office in this past June's provincial election. The \$700-million Deep Panuke offshore natural gas project and a number of medium-sized investments will help the construction sector, allowing real GDP to advance by a modest 0.3 per cent this year.

While the finance, insurance, and real estate industry and the government sector remain healthy, the rest of the service industries are mired in recession—as are the goods-producing industries. Declining natural gas production will drag down growth in the primary sector over the next two years. Rock-bottom prices and swollen lobster inventories will lead to reduced fish landings this year as the industry attempts to shore up prices. Even though a lower Canadian dollar is expected to provide some relief for exporters this year, the manufacturing sector will be hurt by the sharp reduction in consumer demand south of the border.

Growth in the service sector will slow as job losses limit income growth. The unemployment rate is forecast to rise to reach 10.1 per cent in 2010. Personal services, as well as patronage at restaurants and amusement centres, will be affected this year. Business services, including technical and call centre activities, will fall victim to the global economic recession and impede gains in the service sector. Given the weaker global outlook, the tourism and transportation industries are expected to face tough times in the short term. The outlook is expected to improve next year as the U.S. economy recovers. Real GDP is forecast to expand by just 1.2 per cent in 2010 as growth in the goods-producing industry remains negative. The construction sector will lose momentum next year and will not be a source of strength.

GOVERNMENT SPENDING KEEPS SERVICE SECTOR AFLOAT

Last June, Nova Scotians went to the polls and elected a new government, effectively derailing the provincial component of the \$800-million economic rescue plan proposed by the previous government. The province's finances are currently under review, and no further spending initiatives are anticipated for the balance of the year. However, substantial funds poured into government programs before the election

Economic Indicators

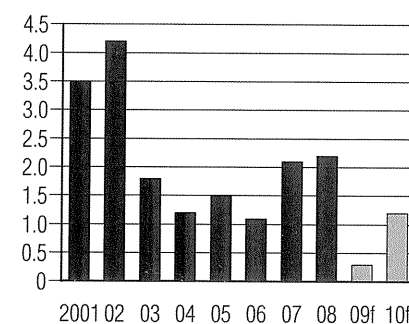
(2002 \$; percentage change)

	2008	2009	2010
Real GDP (basic prices)	2.2	0.3	1.2
Consumer Price Index	3.0	-0.1	2.6
Personal disposable income	4.7	0.6	1.7
Employment	1.2	-0.7	-0.5
Unemployment rate (level)	7.7	9.5	10.1
Retail sales	4.3	-3.4	1.9
Average weekly wages	2.1	2.3	1.8
Population	0.2	0.2	0.2

Sources: The Conference Board of Canada; Statistics Canada.

Outlook Remains Modest

(percentage change, real GDP)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

have allowed the public sector to add handsomely to its payrolls. A total of 11,700 new jobs were created in the public sector in the first half of this year. The new government is expected to table its budget sometime in the fall, and we can expect more money next year for priority areas such as education, health care, and social services. As a result, real output in the public sector—including public administration, defence, and education, health, and social services—will advance by an average of 3.1 per cent over 2009–10.

Overall job prospects are dim as the 13,400 job gains in the public sector and the financial services industry are obliterated by massive layoffs in other sectors of the economy.

In addition to the public sector, growth in the service industry will be sustained by the finance, insurance, and real estate sector. Halifax is home to several financial institutions, and the industry managed to add 1,700 jobs to its payroll in the first half of this year. Growth in the finance, insurance, and real estate sector is expected to average a strong 2.3 per cent over 2009–10.

The rest of the service industries are either mired in recession or experiencing only stunted growth. Overall job prospects are dim as the 13,400 job gains in the public sector and the financial services industry have been obliterated by massive layoffs in other sectors of the economy. Job losses will persist through the rest of this year, pushing the unemployment rate to 10.1 per cent in 2010. This will limit growth in personal income in the near term, thus constraining consumer spending. In particular, retail sales will contract by an average of 0.8 per cent over 2009–10. Growth in the amusement, restaurant, and personal services industries will all wane.

The recession south of the border and elsewhere in Canada will also limit the number of tourists visiting the province. As a result, growth in commercial services will decelerate to an average of 1 per cent a year over 2009–10, down from an average of 3.2 per cent over 2000–08. Also, container traffic at the Port of Halifax is expected to post a decline in 2009 due to the slowdown in global trade. Air Canada's regional carrier, Jazz Air, has reduced its capacity by 5 per cent, eliminating 187 flight attendant positions at its Halifax base. With traffic at ports slowing and the struggling manufacturing sector sending less business truckers' way, growth in the transportation and warehousing industry is expected to decline by 0.3 per cent in 2009 before managing a weak recovery of 1.4 per cent next year.

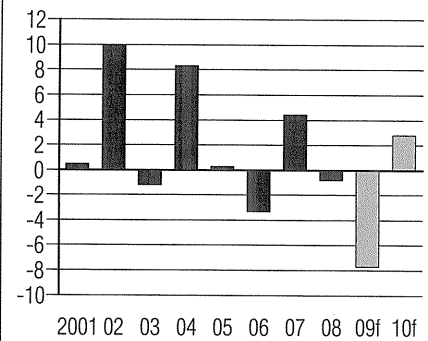
NON-RESIDENTIAL CONSTRUCTION INVESTMENT SOARS . . .

The construction industry will benefit from major investments in the province. Work is progressing on EnCana's Deep Panuke offshore natural gas platform. At least 30 per cent of the \$700-million capital outlays on this project will occur in the province. Work is also expected to begin this year on the \$350-million container terminal at the Strait of Canso, providing up to 500 construction jobs over the three-year construction period. As well, there are several medium-size projects at various stages of development in the province helping to boost private investment spending.

. . . WHILE RESIDENTIAL CONSTRUCTION INVESTMENT IMPLODES

Over the past decade, residential investment increased by an average of 10.2 per cent per year. A large correction is projected as the economy continues to bleed jobs, leaving consumers reluctant to make

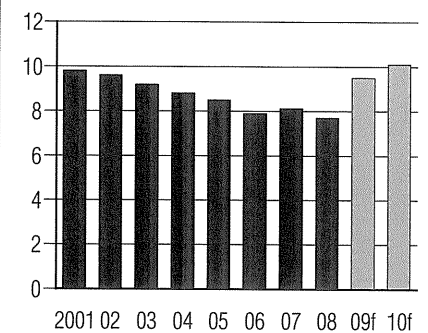
Manufacturers in Deep Hole
(percentage change, 2002 \$)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Unemployment Rate Creeps Higher
(per cent)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

major purchases, such as a home. Even with borrowing costs reduced to the barest minimum, housing starts are projected to decline at an annual average pace of 12.3 per cent this year and next. The implosion of new home construction will wipe out over \$570 million in residential construction investment in the province this year and a further \$180 million next year. This will certainly offset all the gains provided by major capital projects. As a result, real construction output will contract by 3.6 per cent over 2009–10.

MANUFACTURERS' PAIN CONTINUES TO WORSEN

Fish-processing activities will suffer from the downturn in fish landings. Other manufacturing sectors are hurting as well. The collapse in the North American automotive industry has hit the province's tire industry hard. With credit drying up for U.S. consumers, car dealerships south of the border are facing tough times. Fewer cars are rolling off North American auto assembly lines. Tire-maker Michelin has curtailed production at its Nova Scotia plants, but the company managed to avoid job layoffs after its workers agreed to a work-sharing program. In fact, several companies are implementing work-sharing programs, whereby employees' work-hours—rather than the number of workers—are reduced.

Natural gas production at the Sable Island offshore natural gas field peaked last year following the installation of a compression platform.

Demand for pulp and paper and lumber-related products is expected to remain weak this year, with a slow recovery forecast for next year. The only sectors currently

experiencing export growth are rubber, chemical, spring and wire, and plastic film products. Overall, real manufacturing output is forecast to decline by 7.7 per cent this year, before rebounding by 2.8 per cent in 2010 along with the recovery south of the border.

RESOURCE INDUSTRIES SLUMP

Declining natural gas production will take the oomph out the resource sector in the short term. Natural gas production peaked last year at the Sable Island offshore natural gas field following the installation of a compression platform. Real mining output is projected to drop by 5.7 per cent over 2009–10. The industry is expected to languish until the Deep Panuke natural gas field comes online in 2011.

South of the border, the recession has dampened demand for lobster. That has led to large inventories of unsold lobster from last year. With banks unwilling to finance canneries that are holding large inventories, and with lobster prices having fallen far below their break-even point, it is very likely lobster landings will drop this year. The fishing industry will contract by 15.3 per cent, before recovering next year with growth of 2 per cent as market conditions improve.

Facing depressed prices, and with several print media houses unable to survive the ravages of the recession, a number of lumber and pulp and paper mills are implementing down time. Others have shut down completely. Real forestry output is expected to plummet 15.3 per cent this year, with a faint recovery expected next year as demand conditions in the U.S. improve.

Forecast Risks

Short term

- If recovery of the U.S. economy is derailed, it could spell bad news for Nova Scotians

Medium term

- Confirmation of recoverable onshore unconventional natural gas reserves could bring huge benefits to the province

Source: The Conference Board of Canada.

Key Economic Indicators: Nova Scotia
 (forecast completed Jul. 16, 2009)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2009:4	2009:1	2009:2	2009:3	2009:4	2009	2010
GDP at market prices (current \$)	33,702 1.9	34,494 2.4	34,876 1.1	33,211 -4.8	33,474 0.8	33,761 0.9	34,144 1.1	34,501 1.0	34,575 0.2	34,726 0.4	35,022 0.9	35,376 1.0	33,970 -0.3	34,925 2.8
GDP at basic prices (current \$)	31,015 2.4	31,785 2.5	32,159 1.2	30,555 -5.0	30,882 1.1	31,152 0.9	31,512 1.2	31,835 1.0	31,867 0.1	31,973 0.3	32,164 0.6	32,464 0.9	31,378 4.5	32,117 2.5
GDP at basic prices (constant \$ 2002)	27,060 1.5	27,000 -0.2	27,137 0.5	26,996 -0.5	26,995 0.0	27,099 0.4	27,175 0.3	27,241 0.2	27,291 0.2	27,383 0.3	27,512 0.5	27,652 0.5	27,048 2.2	27,460 1.2
Consumer Price Index (2002 = 1.0)	1.140 0.6	1.168 2.5	1.177 0.8	1.149 -2.4	1.141 -0.8	1.154 1.2	1.164 0.9	1.171 0.6	1.178 0.5	1.184 0.6	1.191 0.6	1.198 0.6	1.159 3.0	1.188 2.6
Implicit price deflator— GDP at basic prices (2002 = 1.0)	1.146 0.9	1.177 2.7	1.185 0.7	1.132 -4.5	1.144 1.1	1.150 0.5	1.160 0.9	1.169 0.8	1.168 -0.1	1.168 0.0	1.169 0.1	1.174 0.4	1.160 2.3	1.170 1.2
Average weekly wages (\$, industrial composite)	666.7 0.1	677.0 1.5	684.0 1.0	682.0 -0.3	691.1 1.3	691.5 0.1	693.1 0.2	697.5 0.6	699.5 0.3	703.3 0.5	707.5 0.6	712.2 0.7	677.4 2.1	705.7 1.8
Personal income (current \$)	29,855 1.8	29,863 0.0	30,058 0.7	30,163 0.3	30,110 -0.2	30,151 0.1	30,164 0.0	30,320 0.5	30,448 0.4	30,645 0.6	30,910 0.9	31,137 0.7	29,985 3.7	30,785 2.0
Personal disposable income (current \$)	23,648 2.0	23,788 0.6	23,958 0.7	23,976 0.1	23,921 -0.2	23,953 0.1	23,971 0.1	24,103 0.6	24,151 0.2	24,300 0.6	24,498 0.8	24,677 0.7	23,842 4.7	24,406 1.7
Personal savings rate	-2.78	-2.82	-3.61	-1.71	-1.72	-2.38	-2.84	-2.76	-2.95	-2.88	-2.94	-2.67	-2.73	-2.86
Population of labour force age (000s)	767 0.2	768 0.2	769 0.2	770 0.1	771 0.1	772 0.1	774 0.2	775 0.1	777 0.2	778 0.2	779 0.1	780 0.1	769 0.6	779 0.7
Labour force (000s)	488 -0.2	491 0.7	492 0.2	494 0.4	499 1.0	497 -0.3	497 -0.1	496 -0.1	497 0.1	498 0.2	498 0.1	498 0.0	491 0.9	498 0.1
Employment (000s)	451 -0.1	453 0.4	455 0.4	455 0.1	455 -0.1	452 -0.7	448 -0.9	446 -0.4	446 0.0	447 0.3	448 0.2	449 0.3	453 1.2	448 -0.5
Unemployment rate	7.6	7.8	7.6	7.9	8.8	9.2	9.9	10.1	10.2	10.2	10.1	9.8	7.7	10.1
Retail sales (current \$)	12,171 2.4	12,151 -0.2	12,366 1.8	11,835 -4.3	11,682 -1.3	11,688 0.0	11,716 0.2	11,778 0.5	11,808 0.3	11,886 0.7	11,994 0.9	12,061 0.6	12,131 4.3	11,937 1.9
Housing starts (units)	4,744 1.5	3,798 -20.0	3,980 4.8	3,406 -14.4	3,012 -11.6	3,067 1.8	3,063 -0.1	3,108 1.5	3,087 -0.7	3,062 -0.8	3,027 -1.2	3,067 1.3	3,982 -16.2	3,061 -0.1

White area represents forecast data.

All data are in millions of dollars, seasonally adjusted at annual rates, unless otherwise specified.

For each indicator, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada; CMHC Housing Time Series Database.

New Brunswick

- Fiscal measures are helping to prevent the economy from sliding into recession.
- Following a string of annual gains, the construction industry is taking a breather

Real GDP

2009	Growth 0.9	Ranking #1
2010	Growth 2.8	Ranking #5

Credit Quality

AA-
Standard & Poor's

Retail Sales

2009	Growth -2.6	Ranking #6
2010	Growth 3.3	Ranking #4

Government & Background Information

Premier	Shawn Graham
Next election	2010
Population (2009:2)	748,866
Government balance (2009-10)	-\$741 million

Source: The Conference Board of Canada.

A New Growth Leader

by Prince Owusu

New Brunswick will not only avert recession this year, it will lead all provinces in real gross domestic product growth (albeit at a modest pace of 0.9 per cent) thanks to the provincial government's economic rescue plan—a \$1.2-billion infrastructure program and \$402 million in tax cuts over the next two fiscal years.

Apart from the public sector where infrastructure investments and increased program spending by the government are fuelling growth, the rest of the provincial economy remains weak. Last year marked the end of some major construction projects in the province. The development of the \$1.7-billion PotashCorp mine and processing facility and the government's investments in infrastructure programs will not be enough to completely fill the void left by the completion of over \$2 billion worth of construction work involving the Canaport liquefied natural gas (LNG) terminal and associated pipeline and the Point Lepreau nuclear plant refurbishment.

The forestry sector continues to be challenged by the downturn in the housing sector south of the border. Until the U.S. housing sector begins to recover, prospects will

remain bleak for forestry-related activities in the province. Weak demand for lobster will hurt New Brunswick's seafood processing industry. With base metal prices still low, the mining industry is not expected to recover until demand conditions improve next year.

Housing starts are forecast to decline by an average of 20.3 per cent over the next two years, falling to 2,716 units.

As job losses mount, household income will deteriorate this year, thus restraining patronage at restaurants and amusement centres and spending on personal services. Next year—with the U.S. recovery under way—industrial production in New Brunswick is expected to pick up. Overall real GDP is expected to advance by 2.8 per cent next year. There is downside risk to the New Brunswick forecast. Irving Oil has decided not to proceed at the moment with the development of a second gasoline refinery. This project would have boosted business commercial services next year and construction activities in 2011 until 2014-15

CONSTRUCTION OUTLOOK DIM

The construction industry will lose much of its vigour this year as construction of new homes plummets and major projects

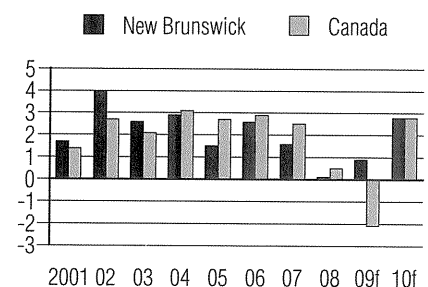
Economic Indicators (2002 \$; percentage change)

	2008	2009	2010
Real GDP (basic prices)	0.1	0.9	2.8
Consumer Price Index	1.7	0.2	2.6
Personal disposable income	4.8	1.3	3.2
Employment	0.9	-0.3	0.4
Unemployment rate (level)	8.6	9.4	10.5
Retail sales	6.0	-2.6	3.3
Average weekly wages	2.7	0.2	1.9
Population	0.2	0.2	0.2

Sources: The Conference Board of Canada; Statistics Canada.

New Brunswick Leads the Country in 2009

(percentage change, real GDP, 2002 \$)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

wrap up. Housing starts are forecast to decline by an average of 20.3 per cent over the next two years to reach 2,716 units (annualized), as the job market loses steam and household income dwindles. As a result, residential investment is forecast to decline by an average of 14.6 per cent—or \$482 million—over 2009–10, the first contraction in a decade.

The completion of work on the concrete vault of the Point Lepreau nuclear plant refurbishment and on the Canaport LNG plant and its associated pipeline will reduce private and public non-residential construction investment spending. As a result, construction output will decline by 1.1 per cent this year and by a further 11.6 per cent in 2010.

Other initiatives that are helping to keep the industry from sinking even deeper into recession include the \$1.7-billion PotashCorp's plant expansion near Sussex. The project is expected to generate 2,500 person-years of employment during the construction period and 140 new full-time positions upon completion of the project in 2011. In addition, the provincial government is spending \$1.2 billion over the next two years on infrastructure projects across the province to help insulate the economy from the global recession.

MANUFACTURING INDUSTRY WILL RECOVER NEXT YEAR

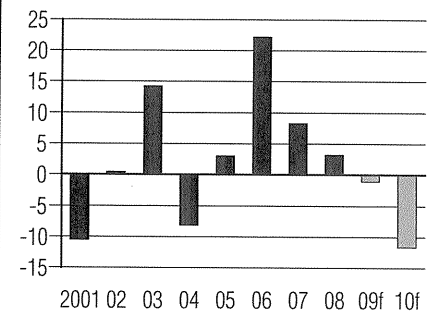
For the fifth consecutive year, manufacturing is set to contract in 2009, declining by 3 per cent. Key segments of the industry—such as wood products, pulp and paper, and seafood products—continue to suffer from the cyclical downturn in Canada and south of the border. Housing starts in the U.S. fell below the 1 million mark last year for the first time since record-keeping began, and starts are expected to hit bottom at 564,000 units this year before the market begins to slowly recover next year. The drop has dampened demand for lumber products, one of New Brunswick's major

export commodities. Seafood processors are also struggling with lacklustre demand south of the border as consumers shy away from lobster—a luxury food item that consumers often forgo in times of economic distress. With the U.S. economy still struggling, and several print media companies folding, demand for pulp and paper for advertising purposes, paper bags, and other wood-related products will wane this year. Lower royalty rates and generous incentives have not been enough to prevent the closing of saw and pulp mills throughout the province over the last few years. The shutdowns are spreading beyond the forestry industry. A chemical plant in Dalhousie and a glass bottle plant in Scoudouc closed last year. (The fallout from the closure of the glass bottle plant has spread beyond the 200 laid-off workers, since the province's beverage industry relied on the plant for its supply of bottles.) McCain Foods has reduced production at its Grand Falls and Florenceville facilities. And the province's largest manufacturing plant—the Irving gasoline refinery—has reached capacity and will not provide much stimulus to manufacturing.

For the past half-decade, the province's manufacturing industry has been hit by one bad news story after another, but there is light at the end of the tunnel. Signs of recovery are starting to appear. Irving Oil is expected to begin re-gasification of liquid natural gas at its new Canaport facility in the second half of this year, and we should see production crank up next year. Moncton's Industrial Rail Services has won a \$104-million contract to refurbish and upgrade Vial Rail's passenger cars to make them more energy-efficient and to improve their accessibility. This five-year contract will allow Industrial Rail to add 135 employees to its payroll, with an additional 50 spin-off jobs.

Also, the Canadian dollar has fallen from a high of US\$1.09 in November 2007 to around US\$0.90 recently. We expect the

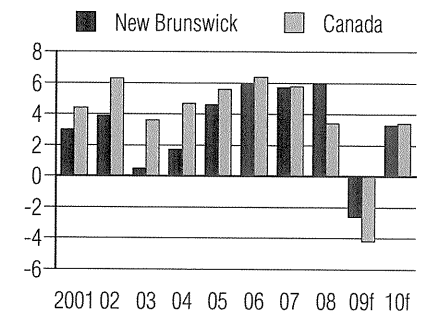
Construction Boom Is Over
(percentage change, 2002 \$)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Provincial Income Tax Cuts Soften Drop in Retail Sales
(sales, percentage change)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

dollar to average US\$0.89 over 2009–10. With the weaker loonie loosening its grip on exporters, and the U.S. economy slowly recovering, real manufacturing output is projected to rebound by 2.7 per cent next year.

DOMESTIC DEMAND OUTLOOK

The domestic economy is still facing tough challenges from the global recession. With demand south of the border faltering and the provincial economy failing to generate jobs, the unemployment rate has started to rise. After dropping to 7.6 per cent in 2007 (the lowest since record keeping began), the jobless rate is expected to reach 10.5 per cent by 2010. Along with

the dismal job market outlook, wage gains will slow as the provincial government freezes wages for its workers and companies engage in cost-cutting and efficiency measures in a bid to stay competitive in this challenging economic environment.

Employment in public administration increased by 15.1 per cent in the first half of this year, while the number of education, health, and social service jobs rose 4.4 per cent.

With employment prospects bleak and household income weakening, retail sales are expected to contract by 2.6 per cent this year—the first drop in 15 years, but still a better performance than the national average. The drop in New Brunswick's retail sales could have been worse; but thanks to the \$402 million in personal income tax cuts provided by the provincial government, consumers will enjoy real disposable income gains. Positive retail growth of 3.3 per cent is forecast next year.

The poor outlook for the job market and for incomes will lead many New Brunswickers to curtail patronage on amusement, recreational activities, and restaurants. Not only are New Brunswickers cutting back on their spending, the number of tourists visiting the province plummeted last year—and things will likely get worse this year as global economic conditions remain anemic. As a result, real output in the accommodation and food and the amusement and recreation industries are expected to contract by 1.7 per cent and 0.7 per cent respectively before recovering slowly next year along with the general improvement in the economy.

With the forestry and manufacturing sectors still on their knees, less cargo is expected to pass through the province's ports. Growth in the transportation and warehousing industry is expected to contract by 0.3 per cent over 2009–10.

With the recession ravaging its trading partners, the New Brunswick government is providing the stimulus needed to keep the province's economy growing. Spending on

goods and service is expected to increase by an average of 7.4 per cent per year over 2009–10, the highest in the country. For instance, employment in public administration and defence increased by 15.1 per cent in the first half of this year while the number of education, health, and social service jobs rose 4.4 per cent. More public sector jobs are expected next year as the government remains determined to use fiscal measures to insulate the economy from the global recession.

Forecast Risks

Short term

- A rapid appreciation of the Canadian dollar would spell further bad news for manufacturers.

Medium term

- The twinning of Route 11 could bolster construction activities.

Source: The Conference Board of Canada.

Key Economic Indicators: New Brunswick
 (forecast completed Jul. 16, 2009)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2008:4	2009:1	2009:2	2009:3	2009:4	2008	2009	2010
GDP at market prices (current \$)	26,687 -1.1	27,622 3.5	28,047 1.5	26,525 -5.4	26,853 1.2	27,138 1.1	27,533 1.5	27,908 1.4	28,163 0.9	28,377 0.8	28,694 1.1	29,057 1.3	27,220 1.4	27,358 0.5	28,573 4.4
GDP at basic prices (current \$)	24,531 -0.9	25,448 3.7	25,866 1.6	24,393 -5.7	24,773 1.6	25,045 1.1	25,421 1.5	25,769 1.4	25,990 0.9	26,167 0.7	26,400 0.9	26,719 1.2	25,059 1.7	25,252 0.8	26,319 4.2
GDP at basic prices (constant \$ 2002)	21,281 -1.7	21,423 0.7	21,393 -0.1	21,440 0.2	21,429 0.0	21,517 0.4	21,624 0.5	21,737 0.5	21,943 0.9	22,095 0.7	22,267 0.8	22,440 0.8	21,384 0.1	21,577 0.9	22,186 2.8
Consumer Price Index (2002 = 1.0)	1.118 0.1	1.137 1.7	1.146 0.8	1.124 -1.9	1.118 -0.5	1.131 1.2	1.139 0.7	1.146 0.6	1.152 0.6	1.159 0.6	1.166 0.6	1.173 0.6	1.132 1.7	1.133 0.2	1.163 2.6
Implicit price deflator— GDP at basic prices (2002 = 1.0)	1.153 0.8	1.188 3.1	1.209 1.8	1.138 -5.9	1.156 1.6	1.164 0.7	1.176 1.0	1.185 0.8	1.184 -0.1	1.184 0.0	1.186 0.1	1.191 0.4	1.172 1.6	1.170 -0.1	1.186 1.4
Average weekly wages (\$, industrial composite)	674.3 -0.5	683.0 1.3	698.1 2.2	692.8 -0.8	686.2 -1.0	686.6 0.1	688.2 0.2	692.7 0.7	695.0 0.3	698.9 0.6	703.3 0.6	708.2 0.7	687.0 2.7	688.4 0.2	701.3 1.9
Personal income (current \$)	23,148 2.0	23,142 0.0	23,261 0.5	23,393 0.6	23,267 -0.5	23,381 0.5	23,474 0.4	23,654 0.8	23,813 0.7	23,938 0.5	24,168 1.0	24,385 0.9	23,236 4.0	23,444 0.9	24,076 2.7
Personal disposable income (current \$)	18,460 2.0	18,550 0.5	18,655 0.6	18,721 0.4	18,687 -0.2	18,778 0.5	18,856 0.4	19,005 0.8	19,227 1.2	19,321 0.5	19,498 0.9	19,668 0.9	18,596 4.8	18,831 1.3	19,429 3.2
Personal savings rate	2.45	1.02	-0.68	1.65	2.15	1.54	1.10	1.19	1.04	1.10	1.04	1.30	1.11	1.50	1.12
Population of labour force age (000s)	616 0.2	618 0.2	619 0.2	619 0.1	620 0.1	621 0.1	622 0.2	623 0.2	625 0.2	626 0.2	626 0.1	627 0.1	618 0.8	622 0.6	626 0.7
Labour force (000s)	400 0.8	400 0.1	400 -0.1	403 0.7	402 -0.1	401 -0.2	403 0.3	405 0.6	407 0.5	409 0.3	410 0.3	412 0.4	401 2.0	403 0.6	409 1.6
Employment (000s)	366 0.0	364 -0.5	366 0.5	368 0.4	366 -0.4	366 -0.1	364 -0.3	364 0.0	365 0.2	365 0.1	367 0.4	369 0.6	366 0.9	365 -0.3	366 0.4
Unemployment rate	8.4	8.9	8.4	8.7	9.0	8.9	9.6	10.1	10.4	10.6	10.6	10.4	8.6	9.4	10.5
Retail sales (current \$)	9,647 1.1	9,889 2.5	10,202 3.2	9,755 -4.4	9,537 -2.2	9,575 0.4	9,632 0.6	9,705 0.8	9,837 1.4	9,881 0.4	9,976 1.0	10,043 0.7	9,873 6.0	9,612 -2.6	9,934 3.3
Housing starts (units)	5,300 41.7	4,233 -20.1	3,830 -9.5	3,734 -2.5	3,700 -0.9	3,867 4.5	3,885 0.5	3,215 -17.2	2,786 -13.3	2,690 -3.5	2,641 -1.8	2,747 4.0	4,274 0.8	3,667 -14.2	2,716 -25.9

White area represents forecast data.

All data are in millions of dollars, seasonally adjusted at annual rates, unless otherwise specified.

For each indicator, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada; CMHC Housing Time Series Database.

Quebec

- The only sector that will contribute significantly to the economy is government, mainly through its infrastructure programs.
- Despite the negative headwinds, major non-residential projects are still going ahead, especially in the energy sector.

Real GDP

2009	Growth -0.9	Ranking #5
2010	Growth 1.8	Ranking #8

Credit Quality

A+
Standard & Poor's

Retail Sales

2009	Growth -1.8	Ranking #1
2010	Growth 2.7	Ranking #6

Government & Background Information

Premier	Jean Charest
Next election	2012
Population (2009:2)	7,799,372
Government balance (2009-10)	-\$3.9 billion

Sources: Quebec Finance; Statistics Canada.

The Recovery is in Sight

by Marie-Christine Bernard

The hit to Quebec's economy from this global recession has been relatively mild compared with what we've seen in previous cyclical downturns, but the province will still experience negative growth this year. The economy is forecast to turn around next year. Overall real gross domestic product at market prices is expected to decline by 0.7 per cent in 2009 and rise by 1.8 per cent in 2010. Several sectors have been hit hard by the global recession and the scarcity of business credit financing. Real exports will contract for a second consecutive year with most of the leading export sectors in serious difficulties. Also, business investment will retrench considerably in 2009 and won't recover until credit accessibility improves. Machinery and equipment plant upgrades will be most affected. Two sources of strength will remain. Energy-related projects and public capital initiatives will continue to be driving forces behind the resiliency of the construction sector. The provincial government is pursuing its five-year infrastructure program, adding welcome stimulus to the economy over 2009-10. Hydro-Québec's Eastmain-1-A-Sarcelle-Rupert River project will also provide momentum to the construction industry as well as new wind power developments.

With labour markets shedding several thousand jobs since last November, consumers have held back on spending. But the job cuts in Quebec have been more modest than in most of the other provinces, and overall real consumer spending will advance marginally by 0.2 per cent this year. Looking ahead, the recovery south of the border should benefit the province, especially its hard-hit forestry sector and primary metal and fabricated metal manufacturers. The aerospace industry will also gradually get back on its feet, and it is forecast to perform well once the recovery is up and running. Despite the economic recovery, fiscal deficits will remain a challenge for the province for quite some time. A \$3.9-billion shortfall is projected for this fiscal year and a balanced budget is not in the cards until 2013-14 despite added revenues from the one-percentage point hike in the provincial sales tax in 2011.

RECOVERY IN LABOUR MARKETS WON'T COME TOMORROW

There is positive news on the labour front. Between April and June, the province created over 23,000 jobs. Most were full-time, service-sector jobs and were concentrated in the education, information, cultural, and recreational activities sector and the accommodation and food sector. While this is encouraging news, job creation over the rest of 2009 and 2010 will be more

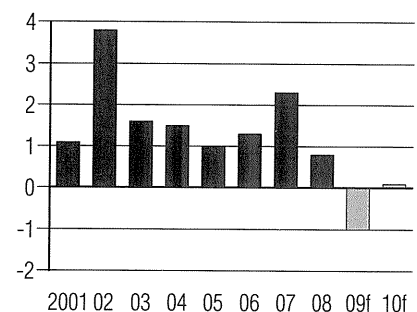
Economic Indicators

(2002 \$; percentage change)

	2008	2009	2010
Real GDP (basic prices)	1.1	-0.7	1.8
Consumer Price Index	2.1	0.6	2.7
Personal disposable income	4.8	1.3	2.2
Employment	0.8	-1.0	0.1
Unemployment rate (level)	7.3	8.8	9.3
Retail sales	5.1	-1.8	2.7
Average weekly wages	1.3	0.8	1.8
Population	0.8	0.7	0.5

Sources: The Conference Board of Canada; Statistics Canada.

No Recovery in Labour Markets Yet (employment, percentage change)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

-muted. Typically, job creation lags the business cycle recovery. And although we are now entering a period of recovery, there are still pockets of weakness in the economy (mainly in the industrial sector). The weakness is leading companies to downsize—but at a more moderate pace than what we saw at the beginning of the year. Only in the second half of 2010 will there be an improvement in labour demand. All in all, after a 1 per cent contraction in employment in 2009, job growth will inch up by a paltry 0.1 per cent in 2010. Job seekers will continue to join the labour force—but with very few jobs to grab, the unemployment rate will remain elevated, averaging 9.3 per cent in 2010.

Job seekers will continue to join the labour force—but with very few jobs to grab, the unemployment rate will remain elevated.

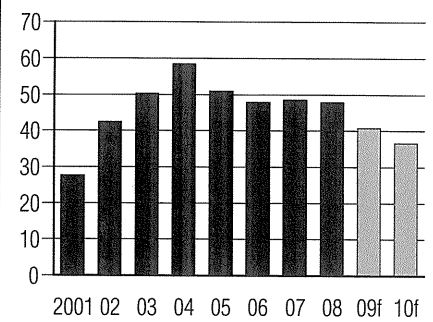
Households will feel the recession. Real disposable incomes are forecast to drop by 0.1 per cent in 2009 and recover by just 0.8 per cent next year. This is the first major setback in take-home pay since 1991. The latest provincial budget did not provide much in terms of stimulus for households. The federal budget was more generous. It introduced several permanent, broad-based tax cuts and credits targeted at providing assistance to low- and middle-income Canadians, who are disproportionately affected by the economic downturn. From 2010 onward, these initiatives will be indexed to inflation. A positive indicator is that Quebec consumers are regaining their confidence. According to our Index of Consumer Confidence survey, Quebecers think that now is a good time to make a major purchase. This sentiment will help turn around consumer demand next year. Real consumption expenditures—which had risen strongly since 2002—are forecast to grow by just 0.2 per cent in 2009

and 1.5 per cent in 2010. Real durable goods consumption will be the most affected, with a drop of 5.1 per cent forecast in 2009.

NON-RESIDENTIAL INVESTMENT HANGING ON

As confirmed by Statistics Canada's revised Private and Public Investment Intentions Survey released at the end of July, investment in the commercial and industrial sector will suffer in Quebec in 2009. The credit crisis, low base metal prices, and difficult economic conditions since the start of the year have dampened investment intentions. Businesses have cut back considerably on machinery and equipment investment this year. Overall real machinery and equipment investment is forecast to plunge 21 per cent in 2009. With more accessible credit financing, a stronger economic outlook, and a rising Canadian dollar, real capital investment in machinery and equipment will bounce back by 6.3 per cent in 2010. The drop in real non-residential capital outlays will be more temperate. A lot of the strength is due to the investment in the energy sector. A number of major developments in the electricity sector will proceed as planned. Among the major projects under way are Hydro-Québec's \$5-billion Eastmain-1-A-Sarcelle-Rupert project, the work to increase transmission capacity with the Ontario electricity grid (1250 MW), and new wind farm projects. From 2009 onward, over \$2 billion is expected to be invested to develop new wind power capacity. The projects include a \$480-million investment by Northland Power, a \$400-million initiative by Invenenergy Wind Canada ULC, a \$550-million investment by Cartier énergie éolienne, and two \$200-million projects by Venterre and Kruger Énergie. In addition, Hydro-Québec has some additional major projects planned, including the \$6.5-billion La Romaine project and the upgrade of the Gentilly 2 nuclear station, both of which are expected to get under way in the near term.

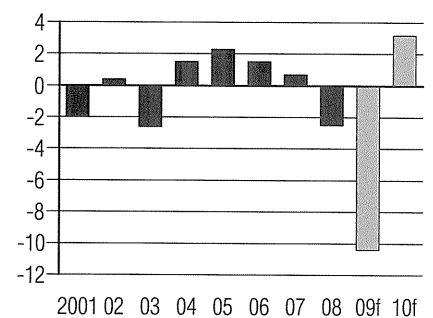
Housing Starts Trend Down
(units)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

A Dark Year for Exports
(real exports, percentage change)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Nevertheless, total real non-residential investment is expected to decline by 3.3 per cent in 2009. The outlook for investment in 2010 is positive as several commercial projects are planned. Aluminum processing plant upgrades by Rio Tinto Alcan in Saguenay-Lac-Saint-Jean (\$650 millions) and by Alcoa in the Côte-Nord (\$1.2 billion) will also boost investment in the province. Growth of 4.2 per cent is expected for total non-residential investment next year.

The recession would have hit Quebec much harder had it not been for the sizable infrastructure program. Most sectors of the economy are not doing well. The provincial government will continue to invest heavily

in infrastructure, providing some much-needed stimulus. Public investment will progress strongly in the next few years, with the provincial government having promised to invest \$37.7 billion between fiscal years 2008 and 2013. Early this year, the provincial government announced that it would hike the planned spending by \$4.1 billion—for a total of \$41.8 billion. Several highway expansions are planned, as are new health-care facilities. In addition, the province will get a boost from the recent federal budget. After robust performances in the last couple of years, real public capital expenditures will rise 19.8 per cent in 2009. The boom will persist in 2010, with growth in public capital expenditures of 8.3 per cent.

Businesses have cut back considerably on machinery and equipment investment this year.

GENTLE DOWNWARD DRIFT IN HOUSING SECTOR

The housing market has been trending down gradually since the middle of last year. A few key factors—job losses, the uncertain economy, and a realignment of supply with demand—have pushed housing starts lower. With moderate population growth, housing starts averaging over

45,000 units (as they have over the past six years) are not sustainable going forward. Unlike in the Western provinces, the resale housing market in Quebec did not experience a price correction and has not tipped in favour of buyers. Housing starts are forecast to drop to 40,732 units in 2009 (down 15 per cent) and to 36,582 units in 2010. Real residential investment is forecast to drop 1.4 per cent in 2009 in spite of federal renovation incentives. A larger 9.6 per cent decline is forecast for next year.

BATTERED ON ALL FRONTS

Very few manufacturing industries will escape the global recession and be able to grow their exports this year. The recent trade data are not encouraging. Of the 25 most important exporters in the province, only the petroleum and coal products and the pharmaceutical products sectors showed positive growth in real exports in the first five months of 2009 compared with the same period in 2008. These industries represent less than 5 per cent of all exported products. The leading industries—aerospace products and parts, information and technology products, primary metals, paper and allied products, and wood products—are all suffering major export setbacks this year. In total, real exports are forecast to contract by 10.4 per cent in 2009. A bleak export performance will be accompanied by a similar drop in imports. For the first time

since 2001, on a net basis the trade sector will not take away from bottom line growth in 2009. Looking ahead, a modest recovery in U.S. residential construction and auto sales will help reverse the tide for Quebec export growth. Export volumes are forecast to post growth of 3.2 per cent next year.

The aerospace industry, which accounts for close to 20 per cent of Quebec's exports, is feeling the economic downturn. Bombardier's business jet segment is expected to see a 36 per cent decline in the number of deliveries this year. The lull should be temporary. A recovery in the U.S. economy in the near term and an accumulated backlog of orders should provide stimulus to the industry going forward.

Forecast Risks

Short term

- If the U.S. recovery does not spur a turnaround in exports, the economy will remain weak in 2010.

Medium term

- A return to fiscal deficits may limit the provincial government's contribution to the economy in the next few years.

Source: The Conference Board of Canada.

Key Economic Indicators: Quebec
 (forecast completed Jul. 16, 2009)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2008:4	2009:1	2009:2	2009:3	2009:4	2008	2009	2010
GDP at market prices (current \$)	297,904 -0.2	305,370 2.5	306,755 0.5	294,057 -4.1	295,730 0.6	298,038 0.8	301,148 1.0	304,096 1.0	305,200 0.4	306,878 0.5	309,505 0.9	312,671 1.0	301,022 1.7	299,753 -0.4	308,564 2.9
GDP at basic prices (current \$)	279,872 0.1	287,187 2.6	288,514 0.5	276,233 -4.3	278,338 0.8	280,530 0.8	283,485 1.1	286,206 1.0	287,029 0.3	288,404 0.5	290,326 0.7	293,126 1.0	282,952 2.0	282,140 -0.3	289,721 2.7
GDP at basic prices (constant \$ 2002)	247,522 0.3	247,921 0.2	248,925 0.4	248,713 -0.1	245,429 -1.3	245,819 0.2	246,245 0.2	246,983 0.3	248,495 0.6	249,725 0.5	251,099 0.6	252,503 0.6	248,270 1.2	246,119 -0.9	250,455 1.8
Consumer Price Index (2002 = 1.0)	1.114 0.5	1.134 1.8	1.139 0.4	1.124 -1.3	1.121 -0.2	1.132 1.0	1.139 0.6	1.147 0.7	1.154 0.6	1.161 0.6	1.169 0.7	1.177 0.7	1.127 2.1	1.135 0.6	1.165 2.7
Implicit price deflator— GDP at basic prices (2002 = 1.0)	1.131 -0.3	1.158 2.4	1.159 0.1	1.111 -4.2	1.134 2.1	1.141 0.6	1.151 0.9	1.159 0.7	1.155 -0.3	1.155 0.0	1.156 0.1	1.161 0.4	1.140 0.7	1.146 0.6	1.157 0.9
Average weekly wages (\$, industrial composite)	726.3 0.1	730.8 0.6	729.3 -0.2	732.9 0.5	733.7 0.1	734.0 0.0	735.5 0.2	740.2 0.6	742.5 0.3	746.5 0.5	750.9 0.6	755.9 0.7	729.8 1.3	735.8 0.8	749.0 1.8
Personal income (current \$)	257,163 1.7	257,724 0.2	258,529 0.3	261,170 1.0	258,625 -1.0	260,322 0.7	260,806 0.2	262,601 0.7	263,895 0.5	265,719 0.7	268,239 0.9	270,102 0.7	258,647 3.5	260,588 0.8	266,989 2.5
Personal disposable income (current \$)	195,315 2.2	195,966 0.3	197,250 0.7	200,061 1.4	198,199 -0.9	199,397 0.6	199,757 0.2	201,173 0.7	201,797 0.3	203,108 0.6	204,865 0.9	206,258 0.7	197,148 4.8	199,632 1.3	204,007 2.2
Personal savings rate	2.06	1.26	1.02	3.50	2.41	1.78	1.35	1.44	1.17	1.13	1.16	0.81	1.96	1.75	1.07
Population of labour force age (000s)	6,349 0.2	6,364 0.2	6,380 0.2	6,396 0.2	6,411 0.2	6,427 0.3	6,442 0.2	6,461 0.3	6,466 0.1	6,479 0.2	6,491 0.2	6,503 0.2	6,372 0.9	6,435 1.0	6,485 0.8
Labour force (000s)	4,183 0.2	4,186 0.1	4,180 -0.1	4,192 0.3	4,178 -0.4	4,223 1.1	4,224 0.0	4,231 0.2	4,225 -0.1	4,235 0.2	4,242 0.2	4,251 0.2	4,185 0.9	4,214 0.7	4,238 0.6
Employment (000s)	3,888 0.1	3,877 -0.3	3,869 -0.2	3,889 0.5	3,845 -1.1	3,860 0.4	3,836 -0.6	3,832 -0.1	3,826 -0.2	3,839 0.3	3,853 0.4	3,863 0.3	3,881 0.8	3,843 -1.0	3,845 0.1
Unemployment rate	7.1	7.4	7.4	7.2	8.0	8.6	9.2	9.4	9.4	9.3	9.2	9.1	7.3	8.8	9.3
Retail sales (current \$)	94,786 2.6	95,460 0.7	96,868 1.5	94,190 -2.8	92,933 -1.3	93,449 0.6	93,779 0.4	94,431 0.7	94,892 0.5	95,537 0.7	96,432 0.9	97,669 1.3	95,326 5.1	93,648 -1.8	96,133 2.7
Housing starts (units)	48,096 21.1	48,195 0.2	49,212 2.1	46,101 -6.3	40,484 -12.2	41,767 3.2	40,799 -2.3	39,879 -2.3	37,585 -5.8	37,263 -0.9	36,050 -3.3	35,431 -1.7	47,901 -1.3	40,732 -15.0	36,582 -10.2

White area represents forecast data.

All data are in millions of dollars, seasonally adjusted at annual rates, unless otherwise specified.

For each indicator, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada; CMHC Housing Time Series Database.

Québec

- Seul le secteur public aura un apport important à l'économie, particulièrement les programmes liés aux infrastructures.
- Les grands projets non résidentiels, surtout dans le secteur de l'énergie, se poursuivent en dépit du contexte négatif.

PIB réel

	Croissance	Classement
2009	-0,9	n° 5

	Croissance	Classement
2010	1,8	n° 8

Qualité du crédit

A+

Standard & Poor's

Ventes au détail

	Croissance	Classement
2009	-1,8	n° 1

	Croissance	Classement
2010	2,7	n° 6

Renseignements généraux

Premier ministre Jean Charest

Prochaines élections 2012

Population (2009:2) 7 799 372

Solde du secteur public (2009-2010) -3,9 milliards \$

Sources : Ministère des Finances du Québec; Statistique Canada.

Reprise en vue

par Marie-Christine Bernard

Les conséquences de l'actuelle récession mondiale pour l'économie du Québec ont été modérées, si l'on compare aux suites de crises économiques précédentes, mais la province affichera tout de même une croissance négative cette année. La situation changera l'an prochain : après un recul de 0,7 p. 100 cette année, le PIB réel aux prix du marché progressera de 1,8 p. 100 en 2010. Plusieurs secteurs ont été durement frappés par la récession mondiale et la rareté du crédit aux entreprises. Les exportations réelles diminueront pour une deuxième année de suite, la plupart des grands secteurs exportateurs vivant de graves difficultés. Les investissements des entreprises fléchiront nettement en 2009 et ne reprendront pas tant que l'accès au crédit ne s'améliorera pas. Les pires reculs s'observeront aux postes de la machinerie et de la modernisation des installations. Par ailleurs, deux moteurs de croissance ne se démentiront pas : les projets énergétiques et les initiatives publiques d'immobilisations permettront au secteur de la construction d'afficher une vigueur constante. Le gouvernement provincial poursuit son programme d'infrastructures sur cinq ans, un apport des plus opportuns à l'économie en 2009 et 2010. Le projet de

l'Eastmain-1-A-Sarcelle-Rupert d'Hydro-Québec sera bénéfique pour l'industrie de la construction, tout comme les nouveaux aménagements de centrales éoliennes.

La population active progressera encore mais, les ouvertures étant très rares, le taux de chômage demeurera élevé, s'inscrivant à 9,3 p. 100 en moyenne en 2010.

Les emplois se perdant par milliers depuis novembre dernier, les consommateurs ont réduit leurs dépenses. Sauf que les pertes d'emplois ont été moindres au Québec que dans la plupart des autres provinces et que les dépenses réelles de consommation progresseront, c'est beaucoup dire, de 0,2 p. 100 cette année. Par la suite, la reprise amorcée aux États-Unis devrait se refléter dans la province, surtout dans le secteur forestier, durement éprouvé, puis chez les producteurs de métaux primaires et les manufacturiers de produits de métal. L'industrie aérospatiale se raplombera elle aussi graduellement et devrait prospérer une fois la reprise bien enclenchée. Mais, malgré la reprise économique, les déficits budgétaires seront problématiques assez longtemps pour la province. Un déficit de 3,9 milliards de dollars est à prévoir pour l'exercice en cours et l'équilibre pourrait n'être rétabli

Indicateurs économiques

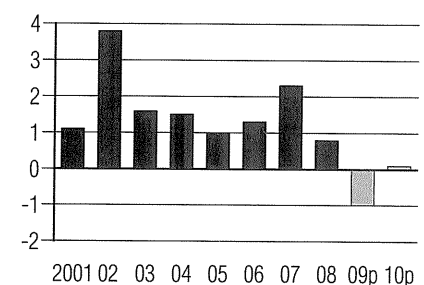
(en dollars de 2002; variation en pourcentage)

	2008	2009	2010
PIB réel (aux prix de base)	1,1	-0,7	1,8
Indice des prix à la consommation	2,1	0,6	2,7
Revenu personnel disponible	4,8	1,3	2,2
Emploi	0,8	-1,0	0,1
Taux de chômage	7,3	8,8	9,3
Ventes au détail	5,1	-1,8	2,7
Salaires hebdomadaires moyens	1,3	0,8	1,8
Population	0,8	0,7	0,5

Sources : Le Conference Board du Canada; Statistique Canada.

Pas de reprise des marchés du travail pour l'instant

(emploi, variation en pourcentage)



p = prévisions

Sources : Le Conference Board du Canada; Statistique Canada.

qu'en 2013-2014, au mieux, malgré les recettes additionnelles engendrées par la hausse de 1 point de pourcentage de la taxe de vente provinciale, en 2011.

LES MARCHÉS DU TRAVAIL NE SE PRENDRONT PAS À TRÈS COURT TERME

De bonnes nouvelles se lisent au tableau de l'emploi : d'avril à juin, 23 000 emplois se sont créés dans la province. Des emplois à temps plein, pour la plupart, dans le secteur des services, surtout dans les domaines de l'éducation, de l'information, de la culture ou des loisirs, ou encore dans le secteur de l'hébergement et de l'alimentation. Il y a là de quoi se réjouir, mais le rythme de création d'emplois sera moindre d'ici la fin de 2009, puis en 2010. En règle générale, dans le cycle économique, la création d'emplois est décalée par rapport à la reprise. Et même si nous sommes au seuil d'une période de reprise, des faiblesses localisées s'observent encore dans l'économie, principalement dans le secteur industriel. Cette faiblesse amène les entreprises à se rationaliser, quoique dans une moins grande proportion qu'en début d'année. C'est seulement au deuxième semestre de 2010 qu'augmentera la demande de main-d'œuvre. Ainsi, après un recul de 1 p. 100 en 2009, il y aura croissance de l'emploi, de façon minimale en 2010, soit d'un maigre 0,1 p. 100. La population active progressera encore mais, les ouvertures étant très rares, le taux de chômage demeurera élevé, s'inscrivant à 9,3 p. 100 en moyenne en 2010.

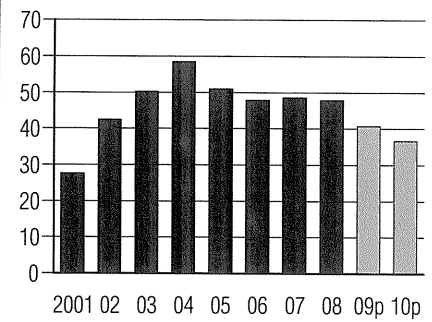
Les ménages se ressentiront de la récession. Le revenu réel disponible devrait diminuer de 0,1 p. 100 en 2009 puis augmenter de seulement 0,8 p. 100 l'an prochain. On vit présentement le premier recul important de la rémunération nette depuis 1991. Le plus récent budget provincial faisait peu pour aider les ménages. Le budget fédéral, par contre, était généreux, apportant plusieurs réductions et crédits

d'impôts de portée générale destinés à aider les Canadiens dont les revenus sont faibles ou moyens, eux pour qui la crise économique aura été encore plus difficile. À compter de 2010, ces initiatives seront indexées en fonction de l'inflation. Le regain de confiance chez les consommateurs du Québec est un indice intéressant; selon notre Indice de confiance des consommateurs, les Québécois estiment que le moment est bien choisi pour faire un achat important. Cette attitude aidera à faire renaître la demande de consommation l'an prochain. Les dépenses de consommation réelles, qui progressaient vivement depuis 2002, devraient n'augmenter que de 0,2 p. 100 en 2009 et 1,5 p. 100 en 2010. La consommation réelle de biens durables montrera la pire courbe d'évolution, cédant, croyons-nous, 5,1 p. 100 en 2009.

L'INVESTISSEMENT NON RÉSIDENTIEL SE MAINTIENT

Comme le confirment les données de l'étude réalisée par Statistique Canada sur les intentions d'investissements privés et publics diffusées à la fin de juillet, les investissements dans le secteur commercial et industriel seront restreints au Québec en 2009. La crise du crédit, le prix peu élevé des métaux de base et la conjoncture économique difficile, depuis le début de l'année, ont refroidi les ardeurs des investisseurs. Cette année, les entreprises ont beaucoup réduit leurs investissements en machinerie et en équipement. Globalement, les investissements réels en machinerie et en équipement devraient tomber de 21 p. 100 en 2009. Ensuite, le financement se faisant plus accessible, les perspectives devenant plus favorables et le dollar canadien prenant de la valeur, l'investissement réel en machinerie et en équipement fera un bond de 6,3 p. 100 en 2010. Pendant ce temps, le recul des mises de fonds dans les opérations non résidentielles sera plus modéré. Le secteur de l'énergie assure en bonne partie la vigueur à cet égard puisque bon nombre de projets de grande envergure liés à la

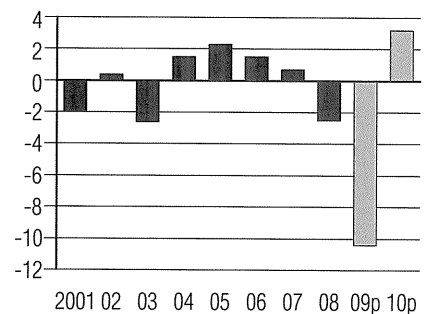
Baisse des mises en chantier
(unités, en milliers)



p = prévisions

Sources : Le Conference Board du Canada; Statistique Canada.

Sombre année pour les exportations
(exportations réelles, variation en pourcentage)



p = prévisions

Sources : Le Conference Board du Canada; Statistique Canada.

production d'électricité seront poursuivis selon les plans. Parmi ceux-là, le projet de l'Eastmain-1-A-Sarcelle-Rupert, d'Hydro-Québec, projet de 5 milliards de dollars, les travaux d'accroissement de la capacité de transmission vers le réseau électrique ontarien (1 250 MW) et les nouveaux parcs d'éoliennes. On prévoit que plus de 2 milliards de dollars seront affectés, à compter de 2009, à la production d'énergie éolienne. Les projets comprennent un investissement de 480 millions de dollars par la Northland Power, une opération de 400 millions de dollars menée par Invenergy Wind Canada ULC, l'investissement de 550 millions de dollars de la part de Cartier énergie éolienne, et deux projets de 200 millions de dollars chez Venterre et Kruger Énergie. Hydro-Québec prépare

en outre d'autres grands projets, dont celui de La Romaine, chiffré à 6,5 milliards de dollars, et la mise à jour de la centrale nucléaire Gentilly 2, deux projets qui devraient être mis en marche à court terme. Néanmoins, les investissements réels non résidentiels devraient diminuer de 3,3 p. 100 en 2009. Pour 2010, les perspectives d'investissement sont positives en raison de plusieurs projets commerciaux en préparation. Des améliorations aux installations de traitement de l'aluminium de Rio Tinto Alcan au Saguenay-Lac-Saint-Jean (650 millions de dollars) et Alcoa, sur la Côte-Nord (1,2 milliard de dollars) nourriront aussi les investissements dans la province. Ainsi, une croissance de 4,2 p. 100 de l'ensemble des investissements non résidentiels est attendue pour l'an prochain.

Cette année, les entreprises ont beaucoup réduit leurs investissements en machinerie et en équipement.

N'eût été d'un imposant programme d'infrastructures, la récession aurait fait beaucoup plus mal au Québec, car la plupart des secteurs de l'économie connaissent des difficultés. Le gouvernement provincial continuera d'investir massivement dans les infrastructures, une intervention qui procurera un souffle des plus opportuns. Les investissements publics croîtront d'une façon soutenue au cours des cinq prochaines années car l'État s'est engagé à dépenser à cet égard 37,7 milliards de dollars entre les exercices 2008 et 2013. En début d'année, le gouvernement provincial a même annoncé qu'il hausserait ses dépenses prévues de 4,1 milliards de dollars, portant donc ses plans d'investissement à 41,8 milliards de dollars. Plusieurs projets de prolongement de routes sont annoncés, de même que des travaux à des établissements de santé. La province profitera en outre du récent budget fédéral. Donc, après de bons résultats dans les

deux dernières années, les immobilisations publiques augmenteront de 19,8 p. 100 en 2009, puis le boom s'étendra à 2010, la progression sur ce plan étant alors de 8,3 p. 100.

LÉGÈRE RELÂCHE DANS LE SECTEUR DU LOGEMENT

Le marché de l'habitation connaît un ralentissement depuis le milieu de 2008. Sous l'effet de divers facteurs clés, dont les pertes d'emploi, l'incertitude économique et un meilleur équilibre entre les stocks et la demande, les mises en chantier se sont faites moins nombreuses. Puisque la population ne croît que modérément, il est impossible que 45 000 unités soient mises en chantier de façon continue, comme ce fut le cas, en moyenne, au cours des 6 dernières années. Contrairement aux provinces de l'Ouest, le Québec n'a pas connu une correction de prix de revente des logements favorable aux acheteurs. Les mises en chantier devraient baisser de 15 p. 100 en 2009, totalisant 40 732 unités, puis atteindre un total de 36 582 en 2010. Les investissements réels résidentiels devraient reculer de 1,4 p. 100 en 2009, et ce malgré les incitatifs fédéraux concernant la rénovation. Et pour l'an prochain, un imposant recul de 9,6 p. 100 est à prévoir.

UNE TOURMENTE GÉNÉRALISÉE

Très peu d'industries manufacturières échapperont à la récession mondiale et verront leurs exportations augmenter cette année. Les plus récentes données sur le commerce ne sont pas encourageantes : parmi les 25 principaux exportateurs de la province, seuls les secteurs des produits du pétrole et du charbon et des produits pharmaceutiques affichaient une croissance des exportations réelles après les 5 premiers mois de 2009, par rapport à la période correspondante de 2008. Or, ces industries interviennent pour moins de 5 p. 100 de

tous les produits exportés. Les industries dominantes, celles des produits aérospatiaux, l'information et les produits technologiques, les métaux primaires, le papier et les produits connexes, puis les produits en bois, accusent toutes un recul marqué au tableau des exportations cette année. Au total, les exportations réelles devraient se contracter de 10,4 p. 100 en 2009. Cette performance peu reluisante des exportations surviendra en même temps qu'une chute aussi importante des importations. Ainsi, pour la première fois depuis 2001, en termes nets, le secteur commercial n'entravera pas le PIB réel en 2009. Plus tard, une modeste reprise de la construction domiciliaire aux États-Unis et des ventes de véhicules automobiles contribuera à renverser la tendance de croissance des exportations du Québec. Les volumes d'exportations devraient progresser de 3,2 p. 100 l'an prochain.

L'industrie aérospatiale, qui représente près de 20 p. 100 des exportations de la province, se ressent du ralentissement économique. À preuve, au poste des jets d'affaires, Bombardier devrait subir un recul de 36 p. 100 de ses livraisons cette année. Mais il devrait s'agir d'un épisode bref puisque le regain de l'économie américaine, à court terme, et un carnet de commandes garni devraient ensuite permettre à l'industrie de décoller.

Scénarios conjoncturels

Court terme

- Si la reprise américaine n'amène pas un redressement des exportations, l'économie sera encore faible en 2010.

Moyen terme

- La réapparition de déficits budgétaires pourrait limiter l'apport du gouvernement provincial à l'économie au cours des prochaines années.

Source : Le Conference Board du Canada.

Principaux indicateurs économiques : Québec

(prévisions en date du 16 juillet 2009)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2009:4	2009:1	2009:2	2009:3	2009:4	2008	2009	2010
PIB aux prix du marché (en dollars courants)	297 904 -0,2	305 370 2,5	306 755 0,5	294 057 -4,1	295 730 0,6	298 038 0,8	301 148 1,0	304 096 1,0	305 200 0,4	306 878 0,5	309 505 0,9	312 671 1,0	301 022 1,7	299 753 -0,4	308 564 2,9
PIB aux prix de base (en dollars courants)	279 872 0,1	287 187 2,6	288 514 0,5	276 233 -4,3	278 338 0,8	280 530 0,8	283 485 1,1	286 206 1,0	287 029 0,3	288 404 0,5	290 326 0,7	293 126 1,0	282 952 2,0	282 140 -0,3	289 721 2,7
PIB aux prix de base (en dollars constants de 2002)	247 522 0,3	247 921 0,2	248 925 0,4	248 713 -0,1	245 429 -1,3	245 819 0,2	246 245 0,2	246 983 0,3	248 495 0,6	249 725 0,5	251 099 0,6	252 503 0,6	248 270 1,2	246 119 -0,9	250 455 1,8
Indice des prix à la consommation (2002 = 1,0)	1,114 0,5	1,134 1,8	1,139 0,4	1,124 -1,3	1,121 -0,2	1,132 1,0	1,139 0,6	1,147 0,7	1,154 0,6	1,161 0,6	1,169 0,7	1,177 0,7	1,127 2,1	1,135 0,6	1,165 2,7
Déflateur implicite des prix — PIB aux prix de base (2002 = 1,0)	1,131 -0,3	1,158 2,4	1,159 0,1	1,111 -4,2	1,134 2,1	1,141 0,6	1,151 0,9	1,159 0,7	1,155 -0,3	1,155 0,0	1,156 0,1	1,161 0,4	1,140 0,7	1,146 0,6	1,157 0,9
Salaires hebdomadaires moyens (niveau)	726,3 0,1	730,8 0,6	729,3 -0,2	732,9 0,5	733,7 0,1	734,0 0,0	735,5 0,2	740,2 0,6	742,5 0,3	746,5 0,5	750,9 0,6	755,9 0,7	729,8 1,3	735,8 0,8	749,0 1,8
Revenu des particuliers (en dollars courants)	257 163 1,7	257 724 0,2	258 529 0,3	261 170 1,0	258 625 -1,0	260 322 0,7	260 806 0,2	262 601 0,7	263 895 0,5	265 719 0,7	268 239 0,9	270 102 0,7	258 647 3,5	260 588 0,8	266 989 2,5
Revenu disponible des particuliers (en dollars courants)	195 315 2,2	195 966 0,3	197 250 0,7	200 061 1,4	198 199 -0,9	199 397 0,6	199 757 0,2	201 173 0,7	201 797 0,3	203 108 0,6	204 865 0,9	206 258 0,7	197 148 4,8	199 632 1,3	204 007 2,2
Taux d'épargne des particuliers	2,06	1,26	1,02	3,50	2,41	1,78	1,35	1,44	1,17	1,13	1,16	0,81	1,96	1,75	1,07
Population en âge d'être active (en milliers)	6 349 0,2	6 364 0,2	6 380 0,2	6 396 0,2	6 411 0,2	6 427 0,3	6 442 0,2	6 461 0,3	6 466 0,1	6 479 0,2	6 491 0,2	6 503 0,2	6 372 0,9	6 435 1,0	6 485 0,8
Population active (en milliers)	4 183 0,2	4 186 0,1	4 180 -0,1	4 192 0,3	4 178 -0,4	4 223 1,1	4 224 0,0	4 231 0,2	4 225 -0,1	4 235 0,2	4 242 0,2	4 251 0,2	4 185 0,9	4 214 0,7	4 238 0,6
Emplois (en milliers)	3 888 0,1	3 877 -0,3	3 869 -0,2	3 889 0,5	3 845 -1,1	3 860 0,4	3 836 -0,6	3 832 -0,1	3 826 -0,2	3 839 0,3	3 853 0,4	3 863 0,3	3 881 0,8	3 843 -1,0	3 845 0,1
Taux de chômage	7,1	7,4	7,4	7,2	8,0	8,6	9,2	9,4	9,4	9,3	9,2	9,1	7,3	8,8	9,3
Ventes au détail (en dollars courants)	94 786 2,6	95 460 0,7	96 868 1,5	94 190 -2,8	92 933 -1,3	93 449 0,6	93 779 0,4	94 431 0,7	94 892 0,5	95 537 0,7	96 432 0,9	97 669 1,3	95 326 5,1	93 648 -1,8	96 133 2,7
Mises en chantier (en unités)	48 096 21,1	48 195 0,2	49 212 2,1	46 101 -6,3	40 484 -12,2	41 767 3,2	40 799 -2,3	39 879 -2,3	37 585 -5,8	37 263 -0,9	36 050 -3,3	35 431 -1,7	47 901 -1,3	40 732 -15,0	36 582 -10,2

Les données en blanc sont des prévisions.

À moins d'indications contraires, toutes les données sont exprimées en millions de dollars, au taux annuel désaisonnalisé.

Pour chaque indicateur, la première ligne donne le niveau, la deuxième la variation en pourcentage par rapport à la période précédente.

Sources: Le Conference Board du Canada; Statistique Canada; Répertoire des séries chronologiques de la Société canadienne d'hypothèques et de logement (SCHL).

Ontario

- Despite significant fiscal stimulus, weak international trade and labour markets will leave Ontario in recession this year.
- Stimulus spending in the province's latest budget could add 1.2 percentage points to Ontario's bottom-line GDP growth in 2009.

Real GDP

2009	Growth -3.1	Ranking #9
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2010	Growth 3.2	Ranking #4
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Credit Quality

AA

Standard & Poor's

Retail Sales

2009	Growth -3.7	Ranking #8
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2010	Growth 3.7	Ranking #3
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Government & Background Information

Premier Dalton McGuinty

Next election 2011

Population (2009:2) 13,014,020

Government balance (projected 2009-10) -\$14.1 billion

Sources: The Conference Board of Canada; Ontario Ministry of Finance.

Recession Continues . . . but Recovery Expected in 2010

by Sabrina Browarski

With its manufacturing heartland decimated, Ontario has posted several quarters of negative real GDP growth. The province has been battered on all fronts by what has emerged as a truly global recession, one that will dampen worldwide economic output by an estimated 2.6 per cent in 2009 alone. However, despite the litany of bad news stories regarding the virtual disappearance of new business investment, widespread full-time job losses, and automotive bankruptcies, some green shoots are finally emerging in what has otherwise been a bleak landscape. Real GDP at market prices will contract by 3 per cent in 2009, but is forecast to rebound by 3.1 per cent next year.

With auto sales down 43 per cent from peak levels in 2005, the dominance of the Detroit Three automakers in the North American automotive market has come to an end.

International trade was expected to be Ontario's sore point in 2009, given the heavily integrated nature of Canada-U.S. supply chains. However, although net

international trade will indeed register a massive deficit this year, slower declines in interprovincial demand will ensure that Ontario achieves a total net trade surplus of \$3.4 billion for 2009!

Mounting job losses to date have slowed growth in household incomes. That, in turn, has led consumers to cut back on spending. While total real consumption is forecast to fall in 2009, a recovery is in sight beginning in the later part of the year as labour markets heal. Likewise, greater stability in financial markets and a resurgence in overseas industrial and consumer demand will allow investment—both public and private—to pick up speed in 2010. The bulk of investment intentions in 2009 will stem from public infrastructure projects.

PUBLIC STIMULUS: A DOUBLE-EDGED SWORD

Public expenditures will constitute virtually the only source of positive growth in the Ontario economy this year. In the near term, total program expenses are forecast to rise by 12.5 per cent in fiscal year 2009-10 and by a further 5.1 per cent in 2010-11. This will cause government spending on goods and services to increase by 5.3 per cent in 2009, and a further 6.2 per cent next year. However, the stimulus plan, aimed at staving off a prolonged recessionary cycle, will come with a price tag

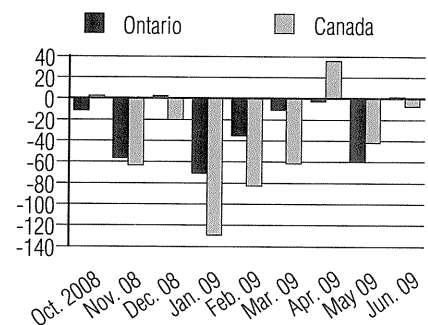
Economic Indicators (2002 \$; percentage change)

	2008	2009	2010
Real GDP (basic prices)	-0.2	-3.1	3.2
Consumer Price Index	2.3	0.7	2.4
Personal disposable income	5.1	0.0	2.9
Employment	1.4	-2.7	0.3
Unemployment rate (level)	6.5	9.2	10.2
Retail sales	3.5	-3.7	3.7
Average weekly wages	1.4	1.3	1.6
Population	1.1	0.9	1.1

Sources: The Conference Board of Canada; Statistics Canada.

Ontario Absorbs Bulk of Canadian Job Cuts

(monthly change in employment, 000s jobs)



Sources: The Conference Board of Canada; Statistics Canada.

of \$27.4 billion over the next two years, a cost that will cause Ontario's fiscal deficit to soar to \$14.1 billion—the largest provincial deficit in history!

The erosion of the fiscal base as a result of the global downturn will have significant repercussions for Ontario's public purse. Net debt will rise by \$56 billion over the next three years, and interest payments required to service provincial debt are expected to rise by over \$2 billion per year. It will take severe expenditure cuts if the Ontario government is to balance its books once again by the targeted date of 2015–16.

Since December 2008, the Ontario economy has shed 178,600 positions. Worse, 244,200 full-time jobs have disappeared.

PRIVATE SECTOR JITTERS DAMPEN INVESTMENT PROSPECTS

Ontario pre-tax corporate profits are expected to fall by nearly \$20 billion in 2009, the result of weak demand for goods and services and the fall-off in commodity prices. It comes as little surprise that such a drastic drop in available funds will lead to a 17 per cent reduction in real business capital formation in 2009. Non-residential investment and spending on machinery and equipment will lead the decline in investment—a disappointing outcome given that private investment is a key driver of productivity. On the residential front, tighter credit standards, alongside a drop in renovations and home resales, will contribute to a nearly 13 per cent decline in real residential investment this year.

The bulk of near-term investment activity will come from public funds. Real public investment activity is anticipated to rise

by an average of nearly 19 per cent as a result of public spending initiatives in Ontario and the \$27.4 billion stimulus package. In total, gross real capital formation will fall by 11.7 per cent in 2009, but major public spending on infrastructure will eke out marginal growth of 4 per cent in 2010.

HOUSEHOLD SECTOR STILL IN LIMBO

Since December 2008, the Ontario economy has shed 178,600 positions. Worse, 244,200 full-time jobs have disappeared. Going forward, job losses will slow in the third quarter of 2009, with net gains forecast as early as the final quarter of this year.

Workers who remain employed will see marginal gains in real wages, although the unemployment rate will trend upward to 9.2 per cent by the end of 2009 and peak at 10.2 per cent in 2010. Province-wide, disposable incomes are forecast to retreat modestly this year as labour markets loosen, but they will recover in 2010 as employment conditions stabilize and income taxes are cut.

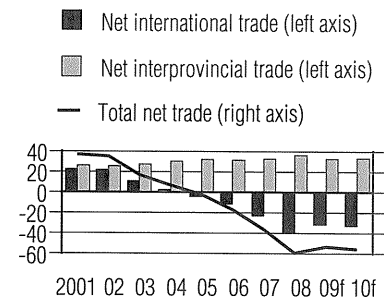
Accordingly, Ontario consumers will tighten their purse strings, cutting back on real spending by 1.1 per cent this year, largely through reduced purchases of consumer durables. Growth of 2 per cent is expected in 2010 as labour markets rebound.

INTERPROVINCIAL DEMAND SECURES MODEST TRADE SURPLUS IN 2009

Of all of Ontario's industries, the auto sector has arguably been the hardest hit by the financial crisis in the U.S., the ensuing pullback in consumer spending, and now the added difficulty of a rising petro-loonie.

Weak International Exports Erode Trade Surplus

(\$ billions)

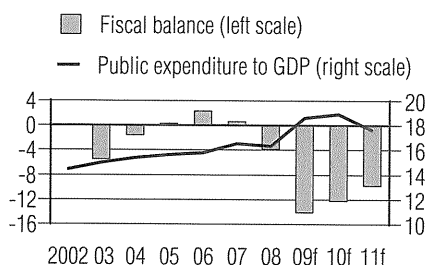


f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Ontario's Deficit the Largest in Provincial History!

(fiscal balance, \$ billions; public expenditure to GDP, per cent)



f = forecast

Sources: The Conference Board of Canada; Ontario Ministry of Finance.

U.S. sales of new motor vehicles averaged less than 9.7 million units (annualized) in the first half of 2009, below even typical scrappage rates of 10 to 12 million units. With auto sales down 43 per cent from peak levels in 2005, the dominance of the Detroit Three automakers in the North American automotive market has come to an end.

The implications for the Canadian automotive sector will be severe going forward. This year, real automotive exports will fall by 47.5 per cent. However, this number has been revised upward from the more than 50 per cent contraction forecast

in our spring Provincial Outlook to reflect a more positive second-quarter production performance by Chrysler at its Brampton and Windsor facilities. With both Chrysler and General Motors successfully emerging from Chapter 11 bankruptcy protection and U.S. consumer demand having hit bottom, the automobile sector will recover at a double-digit pace in 2010. However, exports will never be fully restored to their pre-bankruptcy levels, and employment will trend below historical levels due to higher per-worker productivity as companies invest in new plants and equipment. Reduced U.S. consumer activity will generate a net contraction of 23.4 per cent in Ontario's real international exports this year.

International imports will also contract this year as a result of broad weakness in sales of machinery and equipment, automotive products, primary metals, and a host of other consumer and industrial products. The drop will be only slight less than the decline in exports, and the end result will be a net international trade deficit of \$31.3 billion this year. Interestingly, Ontario will post a net trade surplus of \$3.4 billion in 2009 thanks to the relative strength of interprovincial exports!

Forecast Risks



**Short
term**

- Delays in implementing public infrastructure investment could push the economy deeper into recession.



**Medium
term**

- Rising public health-care costs could stimulate government spending in excess of budgetary targets.

Source: The Conference Board of Canada.

Key Economic Indicators: Ontario
 (forecast completed Jul. 16, 2009)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2008:4	2009:1	2009:2	2009:3	2009:4	2008	2009	2010
GDP at market prices (current \$)	584,232 -1.1	594,243 1.7	597,318 0.5	572,783 -4.1	563,029 -1.7	566,096 0.5	570,200 0.7	575,812 1.0	585,735 1.7	591,179 0.9	598,221 1.2	606,467 1.4	587,144 0.5	568,794 -3.1	595,400 4.7
GDP at basic prices (current \$)	544,893 -0.7	554,576 1.8	557,523 0.5	533,898 -4.2	525,088 -1.7	527,902 0.5	531,665 0.7	536,784 1.0	546,093 1.7	550,875 0.9	556,380 1.0	563,827 1.3	547,723 0.9	530,359 -3.2	554,294 4.5
GDP at basic prices (constant \$ 2002)	493,919 -0.8	494,924 0.2	493,943 -0.2	484,546 -1.9	475,653 -1.8	476,111 0.1	476,588 0.1	478,539 0.4	486,098 1.6	490,032 0.8	494,067 0.8	498,612 0.9	491,833 -0.2	476,723 -3.1	492,202 3.2
Consumer Price Index (2002 = 1.0)	1.113 0.2	1.134 1.9	1.150 1.4	1.133 -1.4	1.131 -0.2	1.136 0.5	1.144 0.7	1.152 0.7	1.159 0.6	1.165 0.5	1.170 0.5	1.179 0.7	1.133 2.3	1.141 0.7	1.168 2.4
Implicit price deflator— GDP at basic prices (2002 = 1.0)	1.103 0.1	1.121 1.6	1.129 0.7	1.102 -2.4	1.104 0.2	1.109 0.4	1.116 0.6	1.122 0.6	1.123 0.2	1.124 0.1	1.126 0.2	1.131 0.4	1.114 1.1	1.112 -0.1	1.126 1.2
Average weekly wages (\$, industrial composite)	812.5 -0.2	816.9 0.5	818.2 0.2	821.1 0.4	826.9 0.7	825.6 -0.1	827.2 0.2	832.2 0.6	834.2 0.2	838.6 0.5	843.6 0.6	849.3 0.7	817.2 1.4	828.0 1.3	841.4 1.6
Personal income (current \$)	479,404 1.6	481,254 0.4	482,198 0.2	483,612 0.3	480,775 -0.6	478,875 -0.4	480,544 0.3	484,067 0.7	487,161 0.6	492,054 1.0	496,164 0.8	502,342 1.2	481,617 3.8	481,065 -0.1	494,430 2.8
Personal disposable income (current \$)	368,600 2.5	372,824 1.1	374,154 0.4	374,441 0.1	372,345 -0.6	370,818 -0.4	372,223 0.4	375,038 0.8	377,731 0.7	381,459 1.0	384,979 0.9	389,782 1.2	372,505 5.1	372,606 0.0	383,488 2.9
Personal savings rate	3.44	3.53	2.89	4.34	3.73	2.53	2.10	2.19	1.93	1.81	1.95	2.01	3.55	2.64	1.93
Population of labour force age (000s)	10,449 0.3	10,488 0.4	10,531 0.4	10,571 0.4	10,604 0.3	10,638 0.3	10,685 0.4	10,711 0.2	10,738 0.3	10,777 0.4	10,818 0.4	10,857 0.4	10,510 1.4	10,659 1.4	10,797 1.3
Labour force (000s)	7,122 0.4	7,157 0.5	7,154 -0.1	7,185 0.4	7,173 -0.2	7,165 -0.1	7,158 -0.1	7,176 0.2	7,213 0.5	7,258 0.6	7,285 0.4	7,316 0.4	7,155 1.6	7,168 0.2	7,268 1.4
Employment (000s)	6,676 0.4	6,695 0.3	6,694 0.0	6,682 -0.2	6,567 -1.7	6,506 -0.9	6,480 -0.4	6,480 0.0	6,487 0.1	6,508 0.3	6,543 0.5	6,581 0.6	6,687 1.4	6,508 -2.7	6,530 0.3
Unemployment rate	6.3	6.5	6.4	7.0	8.4	9.2	9.5	9.7	10.1	10.3	10.2	10.0	6.5	9.2	10.2
Retail sales (current \$)	152,128 2.0	153,338 0.8	153,571 0.2	146,524 -4.6	145,059 -1.0	145,153 0.1	146,048 0.6	147,195 0.8	148,680 1.0	150,342 1.1	151,895 1.0	154,173 1.5	151,390 3.5	145,864 -3.7	151,273 3.7
Housing starts (units)	79,670 17.4	77,353 -2.9	74,718 -3.4	68,562 -8.2	55,238 -19.4	42,367 -23.3	45,676 7.8	49,813 9.1	54,517 9.4	62,107 13.9	70,121 12.9	70,898 1.1	75,076 10.2	48,273 -35.7	64,411 33.4

White area represents forecast data.

All data are in millions of dollars, seasonally adjusted at annual rates, unless otherwise specified.

For each indicator, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada; CMHC Housing Time Series Database.

Manitoba

- Booming infrastructure investment will support the economy in 2009.
- The manufacturing industry has been victimized by the global recession but should soon rebound.

Real GDP

2009	Growth 0.8	Ranking #2
2010	Growth 1.8	Ranking #7

Credit Quality

AA
Standard & Poor's

Retail Sales

2009	Growth -2.6	Ranking #4
2010	Growth 3.1	Ranking #5

Government & Background Information

Premier	Gary Doer
Next election	2011
Population (2009:2)	1,217,000
Government balance (estimated 2009-10)	\$48 million

Sources: The Conference Board of Canada; Manitoba Finance.

Moderate Growth Expected Ahead

by Lin Ai

Manitoba has not been hit as hard as most provinces by the global economic downturn. Booming infrastructure investment will push real gross domestic product up by 0.8 per cent in 2009. The commitment of \$1.6 billion in infrastructure spending from the provincial government and \$223 million from the joint provincial-federal Infrastructure Stimulus Fund will boost construction output and support the provincial economy. However, the construction sector will experience negative growth of 2.8 per cent in 2010 as public investment wanes. Moreover, there are downside risks to the outlook. The 2009 Red River flood brought untold damages to the provincial economy, and its full impact cannot yet be assessed. In addition, a deluge of negative news in the agricultural sector has triggered expectations of lower production in 2009 for the major cereal crops. There is a lot of uncertainty in the agriculture sector at the moment.

The mining industry has not been spared. Many large primary metal operations have been shut down or downsized. The mining sector is expected to contract by 4.3 per cent in 2009. As base metal prices gradually improve, mining activities

will intensify in 2010. Manufacturing has also been affected by the slowdown in the Canadian and U.S. economies, and a negative performance is expected this year.

Even though the unemployment rate is the second lowest in the country, consumers have tightened their wallets, as personal disposable income growth has slowed considerably. Negative growth in retail sales is projected for 2009, but sales will bounce back strongly in 2010. The economy is expected to post stronger growth next year in parallel with many of Manitoba's industrial sectors. In 2010, Manitoba is forecast to grow by 1.8 per cent.

Drought and cold spring weather conditions have damaged crops.

TROUBLING SIGNS IN AGRICULTURE

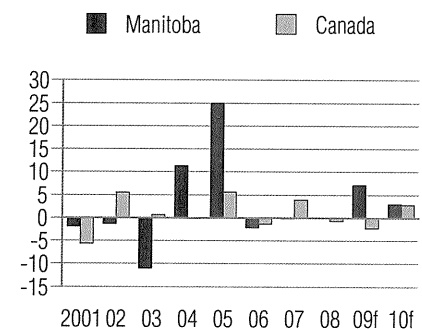
The number of hog producers in Manitoba has shrink by 30 per cent in the last two years, and those that remain in business still face problems. Currency fluctuations, the U.S. country-of-origin labelling (COOL) laws, and the H1N1 flu outbreak that has led to several countries closing their borders to Canadian hogs have all put additional pressure on an industry that is already struggling to cope with low market prices. Although a new

Economic Indicators (2002 \$; percentage change)

	2008	2009	2010
Real GDP (basic prices)	2.5	0.8	1.8
Consumer Price Index	2.2	1.0	2.8
Personal disposable income	7.1	1.6	2.8
Employment	1.7	-0.4	-0.1
Unemployment rate (level)	4.1	5.4	6.4
Retail sales	7.2	-2.6	3.1
Average weekly wages	1.7	3.7	2.4
Population	1.1	1.0	0.8

Sources: The Conference Board of Canada; Statistics Canada.

Utilities Expected to Grow Strongly (percentage change, 2002 \$)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

\$37.7 million federal-provincial cash advance program will provide some relief to hog producers, the assistance might be too little and too late.

Crop growers have also been hit hard. To start, the 2009 Red River flood—the second worst on record—caused untold damage to crops, and a final tally of its economic effect won't be known until the harvests are in. The cold spring weather across the province and drought conditions in many regions forced a delay in seeding for some farmers and resulted in slower-growing crops. Farmers in Manitoba planted 13.8 per cent more spring wheat, but 18 per cent less barley and 1 per cent less canola, than in the previous year. Expectations are that production will decrease 20 per cent for the major crops in Western Canada this year. If the poor weather condition persists, there is more downside risk to the crops. Overall, the agriculture sector is forecast to contract 3.3 per cent in 2009 but will turn around in 2010 with growth of 2.5 per cent.

Manufacturing has been hit hard by the slowdown in the Canadian and U.S. economies.

MANUFACTURING OUTLOOK

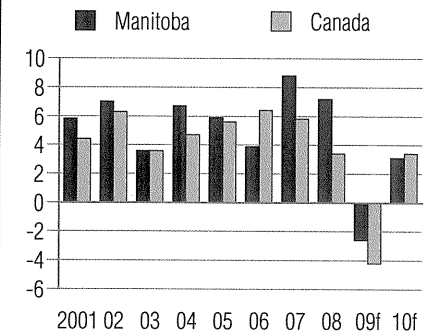
Manufacturing has been pounded by the slowdown in the Canadian and U.S. economies, and a decline of 4.4 per cent is projected for this year. Strong gains in machinery manufacturing and rising demand for fabricated metal producers tempered the decline in the first five months of this year, according to the manufacturing shipments monthly data. Thanks to a brighter outlook for the transportation industry, the manufacturing sector is forecast to bounce back with 2.1 per cent growth in 2010. Standard Aero, a company that provides comprehensive

services to commercial and military aviation clients, has just signed a 15-year, \$850-million deal to service engines for WestJet's fleet of Boeing 737 jetliners. The company has also decided to repatriate an engine overhaul facility from the Netherlands to Winnipeg, a move that will boost its Manitoba workforce. In contrast, Boeing's commercial plane business has struggled in 2009, with delays in test flights and production of the 787 Dreamliner and order cancellations from several airlines. Boeing Winnipeg employees recently voted to accept a four-day workweek in order to avoid job cuts. Transit bus manufacturer New Flyer Industries will contribute positively to the manufacturing sector. The company's backlog of orders totalled US\$4 billion this past April.

MINING FORECAST: CLOUDY WITH RAYS OF SUNSHINE

The global economic downturn has cast a pall over the mining industry. Base metal prices have fallen 70 per cent since 2007. Mineral exploration spending has been affected, as have extraction activities. Total mining output in 2009 will decrease by 4.3 per cent. With a metal prices rebounding, the provincial government has launched several assistance programs and tax incentives aimed at helping Manitoba mining companies ramp up activities once again. Encouraged by the government initiatives, many companies have started to develop exploration plans. Hudbay Mineral Inc. has committed \$13 million this year to its exploration work at Lalor, which has the potential to be developed into a major gold and zinc mine. Other examples include Laurentian Goldfield and Kinross Gold, which together are investing \$500,000 to explore a new gold mine. As well, VMS has plans for a copper project at Snow Lake. Spurred by improved prices, overall mining output is expected to rise 6.1 per cent in 2010.

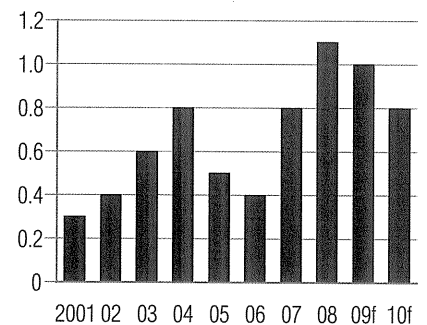
Retail Sales Drop in 2009
(percentage change)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Steady Population Growth
(percentage change)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

CONSTRUCTION FIRED UP

Getting shovels in the ground is a great way to stimulate the economy and create jobs. On the public side, 33 new infrastructure projects in Manitoba will receive joint federal-provincial funding of \$223 million under the Infrastructure Stimulus Fund. Moreover, an investment of \$1.6 billion in infrastructure spending for 2009 by the provincial government will help push the construction sector to new highs. Also, Manitoba Hydro's \$700-million Riel Converter Station, the \$160-million Human Rights Museum in Winnipeg, the

Wuskwatim dam project, and pipeline expansions will help boost construction output by 7.9 per cent in 2009. However, the construction sector will experience negative growth of 2.8 per cent in 2010 as the government stimulus funds dry up and construction on the Riel Converter Station comes to an end.

Mounting economic uncertainty and the decline in the labour market have dragged down consumer confidence and reduced demand for new housing. Housing starts could plunge by as much as 34 per cent in 2009—from 5,537 units in 2008 to 3,649 units this year. With the economy improving, housing starts are forecast to rebound by 20 per cent in 2010 to 4,379 housing units. On the whole, nominal residential construction is forecast to drop 8.3 per cent in 2009, with a minor recovery of 1.3 per cent expected in 2010.

CONSUMER AND FISCAL OUTLOOK

The economic turmoil has negatively affected employment in Manitoba. Job losses have mounted. Employment is down 10.2 per cent from last year in the manufacturing sector and 8 per cent in the other employment category. Total employment is expected to decline by 0.4 per cent, and the unemployment rate will rise to 5.4 per cent in 2009. Personal disposable income will increase by a slight 1.6 per cent, while the consumer price index is expected to rise only 1 per cent, allowing for real income gains despite the lack of job creation.

A shift in spending habits has been detected. Consumers are choosing to spend less and save more. Retail sales are forecast to drop by 2.6 per cent this year as personal savings rise by 9.9 per cent. Brighter

employment and personal income prospects in the province next year will push retail sales up 3.1 per cent.

Forecast Risks



- A rapid recovery in base metal prices could spur more economic growth.



- If more international skilled workers immigrate to Manitoba, the economy would greatly benefit from the resulting reduction in skilled labour shortages.

Source: The Conference Board of Canada.

Key Economic Indicators: Manitoba
 (forecast completed Jul. 16, 2009)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2008:4	2009:1	2009:2	2009:3	2009:4	2008	2009	2010
GDP at market prices (current \$)	50,042 1.4	51,159 2.2	51,565 0.8	49,955 -3.1	49,293 -1.3	49,860 1.2	50,301 0.9	50,762 0.9	51,015 0.5	51,240 0.4	51,722 0.9	52,307 1.1	50,680 5.0	50,054 -1.2	51,571 3.0
GDP at basic prices (current \$)	46,575 1.6	47,664 2.3	48,058 0.8	46,528 -3.2	45,950 -1.2	46,494 1.2	46,905 0.9	47,323 0.9	47,522 0.4	47,688 0.3	48,035 0.7	48,549 1.1	47,206 5.3	46,668 -1.1	47,948 2.7
GDP at basic prices (constant \$ 2002)	39,006 0.6	39,142 0.3	39,775 1.6	39,103 -1.7	39,232 0.3	39,561 0.8	39,674 0.3	39,815 0.4	39,961 0.4	40,127 0.4	40,389 0.7	40,684 0.7	39,256 2.5	39,571 0.8	40,290 1.8
Consumer Price Index (2002 = 1.0)	1.113 0.3	1.135 2.0	1.151 1.4	1.137 -1.2	1.128 -0.8	1.141 1.1	1.153 1.1	1.161 0.7	1.167 0.5	1.174 0.6	1.181 0.6	1.189 0.6	1.134 2.2	1.146 1.0	1.178 2.8
Implicit price deflator— GDP at basic prices (2002 = 1.0)	1.194 1.0	1.218 2.0	1.208 -0.8	1.190 -1.5	1.171 -1.6	1.175 0.3	1.182 0.6	1.189 0.5	1.189 0.1	1.188 -0.1	1.189 0.1	1.193 0.3	1.202 2.7	1.179 -1.9	1.190 0.9
Average weekly wages (\$, industrial composite)	711.2 -0.7	721.5 1.5	725.3 0.5	723.6 -0.2	740.1 2.3	745.7 0.7	748.3 0.4	753.6 0.7	758.2 0.6	762.5 0.6	767.2 0.6	772.4 0.7	720.4 1.7	746.9 3.7	765.1 2.4
Personal income (current \$)	40,053 3.2	40,075 0.1	40,319 0.6	40,671 0.9	40,411 -0.6	40,863 1.1	40,962 0.2	41,252 0.7	41,622 0.9	41,861 0.6	42,192 0.8	42,561 0.9	40,280 5.7	40,872 1.5	42,059 2.9
Personal disposable income (current \$)	31,628 3.7	31,805 0.6	32,008 0.6	32,243 0.7	32,057 -0.6	32,412 1.1	32,497 0.3	32,735 0.7	32,998 0.8	33,177 0.5	33,422 0.7	33,709 0.9	31,921 7.1	32,425 1.6	33,327 2.8
Personal savings rate	3.26	3.12	2.81	3.56	4.06	3.50	3.07	3.16	2.99	3.06	2.98	3.23	3.19	3.45	3.07
Population of labour force age (000s)	905 0.3	908 0.4	911 0.3	914 0.3	917 0.3	921 0.4	924 0.3	926 0.3	929 0.3	930 0.2	931 0.1	934 0.3	910 1.2	922 1.4	931 1.0
Labour force (000s)	629 0.1	634 0.8	633 -0.1	636 0.4	637 0.2	637 0.0	639 0.3	641 0.3	643 0.3	644 0.2	645 0.1	648 0.4	633 1.4	639 0.9	645 1.0
Employment (000s)	603 0.1	608 0.9	607 -0.1	608 0.2	606 -0.4	606 0.0	602 -0.7	601 -0.1	602 0.1	603 0.1	603 0.1	606 0.5	607 1.7	604 -0.4	604 -0.1
Unemployment rate	4.1	4.1	4.1	4.3	4.8	4.9	5.8	6.2	6.4	6.5	6.5	6.4	4.1	5.4	6.4
Retail sales (current \$)	15,052 3.5	15,021 -0.2	15,052 0.2	14,944 -0.7	14,437 -3.4	14,614 1.2	14,682 0.5	14,791 0.7	14,935 1.0	15,020 0.6	15,140 0.8	15,245 0.7	15,017 7.2	14,631 -2.6	15,085 3.1
Housing starts (units)	5,131 -11.7	5,829 13.6	5,222 -10.4	5,966 14.3	3,421 -42.7	3,867 13.0	3,612 -6.6	3,697 2.4	3,749 1.4	3,855 2.8	4,331 12.3	5,582 28.9	5,537 -3.5	3,649 -34.1	4,379 20.0

White area represents forecast data.

All data are in millions of dollars, seasonally adjusted at annual rates, unless otherwise specified.

For each indicator, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada; CMHC Housing Time Series Database.

Saskatchewan

- The difficulties in the agriculture and mining industries will severely constrain real GDP growth this year.
- Saskatchewan is expected to lead all other provinces next year as prospects of a recovery in international potash demand are promising.

Real GDP

2009	Growth -2.7	Ranking #7
2010	Growth 3.5	Ranking #1

Credit Quality

AA+
Standard & Poor's

Retail Sales

2009	Growth -2.6	Ranking #3
2010	Growth 2.4	Ranking #8

Government & Background Information

Premier	Brad Wall
Next election	2011
Population (2009:2)	1,027,000
Government balance (2009-10)	\$425 million
Sources: The Conference Board of Canada; Saskatchewan Finance.	

What a Difference a Few Months Can Make!

by Lin Ai

After a stellar performance last year, Saskatchewan's real gross domestic product will contract by 2.7 per cent in 2009. Earlier this year, the province appeared to be well positioned to grow despite the global economic weakness. However, major potash production cuts and uncertainty in the agriculture sector have dimmed the outlook considerably. At the moment, drought conditions in parts of the province are causing a majority of crops to fall behind their normal development cycles. In addition, PotashCorp has cut potash production several times since last August (for total curtailments of 5.5 million tonnes) as a result of weak demand around the world. The double-digit decline in those two sectors will have a significant impact on Saskatchewan's resource-based economy. Next year is looking more positive for the province. Real GDP growth of 3.5 per cent is forecast, supported by a rebound in the primary sector.

The province can expect brisk construction activities over the next two years thanks to the provincial government's \$1.5-billion infrastructure stimulus plan and several large private projects. Despite the downturn in the primary sector, most

other sectors are performing well and continuing to add to payroll. Incredibly, the province will generate 8,000 new jobs in 2009 and a further 2,000 in 2010, mostly in public administration and construction. The unemployment rate is still the lowest among all the provinces, and Saskatchewan will hold this position until at least 2013. Labour income is expected to post strong gains that will lead to increased consumer spending starting next year. The provincial nominee program has helped many international workers move to Saskatchewan. This influx of people immigrating to Saskatchewan will help to fill jobs and support the housing market in the near term.

A drop in total crop production of at least 20 per cent is predicted for 2009 due to unfavourable weather conditions.

UNUSUAL WEATHER HURTING AGRICULTURE

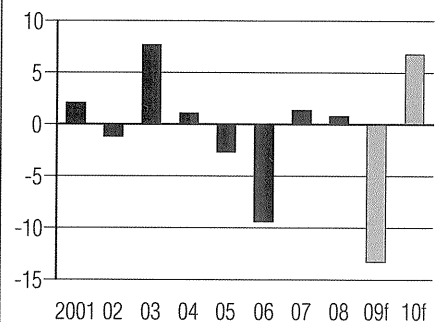
Hit by delays in seeding, and with crop growth being less advanced than in previous years due to cool temperatures and drought conditions, Saskatchewan's crop yields are at risk. Unusually late snowfalls in May delayed the start of the planting season. Since then, the weather has remained unseasonably cool, which has hindered crop growth. In its weekly

Economic Indicators (2002 \$; percentage change)

	2008	2009	2010
Real GDP (basic prices)	4.6	-2.7	3.5
Consumer Price Index	3.2	1.3	2.6
Personal disposable income	15.4	1.5	1.6
Employment	2.2	1.6	0.4
Unemployment rate (level)	4.1	5.2	5.8
Retail sales	10.6	-2.6	2.4
Average weekly wages	5.0	2.5	2.7
Population	1.6	1.3	0.8

Sources: The Conference Board of Canada; Statistics Canada.

Gloomy Outlook for Mining in 2009 (percentage change, 2002\$)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

crop report covering the period of July 14 to July 20, Saskatchewan's Ministry of Agriculture noted that the majority of crops are two to three weeks behind their normal development cycles. Drought conditions in many parts of the province are expected to limit crop yields. Field researchers have also noticed large concentrations of grasshoppers and gophers in the fields—another threat to crops. Although farmers increased the acreage planted with spring wheat this year, they decreased their acreage devoted to barley. It is still too early to know how the damage to crops this year will compare with what we saw during the drought years of 2001 and 2002, but early indications are that crop production could be down by as much as 20 per cent.

Livestock producers are not faring any better than crop farmers. Cattle and hog producers are dealing with a combination of low market prices and the country of origin labelling (COOL) laws in the United States. Just when hog producers were looking forward to banking profits this summer, the industry got hit by the H1N1 flu outbreak. In addition, the poor spring weather is causing shortages of hay and pasture, which is affecting Saskatchewan's cattle industry. By the third week of July last year, one-third of the hay crop had been cut and baled or put into silage; by the same time this year, only 22 per cent of the hay had been baled or put into silage. All things considered, the agriculture sector is forecast to contract 12 per cent in 2009. However, we expect a strong 11 per cent rebound in 2010.

MINING HITS A BUMP IN THE ROAD

While potash prices have not been too badly affected by the global recession, production plans have been scaled back considerably. In the past few months, PotashCorp has cut production by another 800,000 tonnes. That brings the reductions

to 4.7 million tonnes this year alone and to 5.5 million tonnes since last August. The deferral of purchases by international customers, weak demand from U.S. farmers, and extended negotiations with offshore buyers are the reasons behind the cutbacks. A recently signed contract with Brazil, while welcome, was not sufficient to stop the pullback in production. However, new contracts signed with India and China look promising and are expected to raise potash output. Overall, non-metal output is forecast to contract 42.5 per cent in 2009, with a strong rebound of 29.8 per cent in 2010.

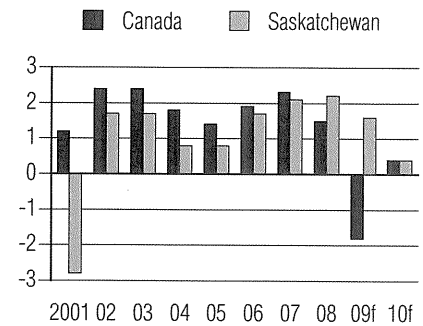
Mining exploration expenditures in 2009 are expected to be much lower than in 2008.

Mineral exploration expenditures in 2009 are expected to be much lower than in 2008, reflecting the sector's difficulty in raising financing. As a result, total mining output (including non-metal output) is forecast to decrease 13.3 per cent in 2009. In recent months, however, the oil and gas sector has shown signs of turning around. June's land sales for oil and gas rights in the province were more than double what they were in May. The Weyburn-Estevan area received the most bids, largely due to the Bakken formation's vast oil reserves. Looking ahead, more drilling rigs are expected to be active. Total mining output is forecast to post solid growth of 6.8 per cent in 2010.

CONSTRUCTION SECTOR FARES WELL

Construction sites around Saskatchewan are expected to be very busy through the rest of 2009 and 2010. Between April and May, building permits jumped 54.5 per cent to \$188 million—the strongest growth in Canada. The province

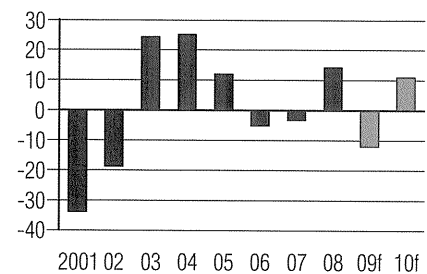
No Job Cuts in 2009
(employment, percentage change)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Unfavourable Outlook for Agriculture This Year
(percentage change, 2002 \$)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

is also investing a record \$630 million for transportation infrastructure. The largest-ever provincial budget will provide funding for nearly 1,600 km of major highways and bridges. This is on top of the additional investments by the provincial government to get infrastructure projects moving forward. Total private and public non-residential investment will rise 11.5 per cent in 2009, supported by several projects, including Mosaic's \$1.7-billion potash mining expansion at Esterhazy and the \$435-million Midwest uranium project at McClean Lake (jointly owned by AREVA Resources, Denison Mines, and OURD Canada).

Strong growth in government infrastructure investment and non-residential construction will outweigh the decline in the residential sector, helping to push construction output up 12 per cent in 2009 and by a further 3.3 per cent in 2010.

CONSUMER OUTLOOK

Despite the downturn in the primary sector, most other sectors are performing well and continuing to add to their payrolls. Incredibly, the province will generate 8,000 new jobs in 2009 and a further 2,000 in 2010—mostly in public administration and construction. The unemployment rate is still the lowest among all the provinces, and Saskatchewan will hold this position

until at least 2013. Labour income is expected to post strong gains that will lead to increased consumer spending starting next year. One of the few caveats in the otherwise strong economic outlook comes from the housing sector. The number of housing starts will fall to 3,663 units this year, down nearly 50 per cent from 2008. The decline comes after inventories of new and existing home ramped up at the beginning of the year. On a positive note, the provincial nominee program is helping many international workers migrate to Saskatchewan easily and quickly. The resulting influx of people immigrating to Saskatchewan will help fill jobs and support a slight improvement in the housing market next year.

Forecast Risks



- A return to normal weather patterns, particularly in the western regions of the province, could stem the decline in the agriculture sector.



- The mining sector will see stronger growth if plans by several companies to expand capacity over the next few years go ahead.

Source: The Conference Board of Canada.

Key Economic Indicators: Saskatchewan

(forecast completed Jul. 16, 2009)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2008:4	2009:1	2009:2	2009:3	2009:4	2008	2009	2010
GDP at market prices (current \$)	60,567 10.5	65,017 7.3	67,202 3.4	65,278 -2.9	58,875 -9.8	59,217 0.6	60,172 1.6	61,302 1.9	62,900 2.6	63,270 0.6	63,868 0.9	64,779 1.4	64,516 25.2	59,892 -7.2	63,704 6.4
GDP at basic prices (current \$)	57,548 10.5	61,972 7.7	64,147 3.5	62,294 -2.9	55,962 -10.2	56,286 0.6	57,214 1.6	58,307 1.9	59,857 2.7	60,177 0.5	60,656 0.8	61,506 1.4	61,490 25.9	56,942 -7.4	60,549 6.3
GDP at basic prices (constant \$ 2002)	38,982 1.4	39,375 1.0	40,048 1.7	39,434 -1.5	38,336 -2.8	38,287 -0.1	38,359 0.2	38,594 0.6	39,314 1.9	39,608 0.7	39,906 0.8	40,170 0.7	39,460 4.6	38,394 -2.7	39,749 3.5
Consumer Price Index (2002 = 1.0)	1.137 0.6	1.162 2.2	1.171 0.7	1.165 -0.5	1.163 -0.2	1.166 0.2	1.180 1.3	1.188 0.6	1.194 0.6	1.201 0.6	1.209 0.6	1.216 0.6	1.159 3.2	1.174 1.3	1.205 2.6
Implicit price deflator— GDP at basic prices (2002 = 1.0)	1.476 9.0	1.574 6.6	1.602 1.8	1.580 -1.4	1.460 -7.6	1.470 0.7	1.492 1.5	1.511 1.3	1.523 0.8	1.519 -0.2	1.520 0.0	1.531 0.7	1.558 20.4	1.483 -4.8	1.523 2.7
Average weekly wages (\$, industrial composite)	746.5 0.6	759.4 1.7	774.1 1.9	771.7 -0.3	772.5 0.1	782.2 1.2	784.4 0.3	789.7 0.7	796.1 0.8	800.6 0.6	805.4 0.6	810.8 0.7	762.9 5.0	782.2 2.5	803.2 2.7
Personal income (current \$)	35,425 7.8	35,777 1.0	36,425 1.8	36,445 0.1	35,822 -1.7	36,752 2.6	36,850 0.3	37,188 0.9	36,901 -0.8	37,150 0.7	37,472 0.9	37,763 0.8	36,018 12.4	36,653 1.8	37,322 1.8
Personal disposable income (current \$)	28,574 9.6	29,049 1.7	29,652 2.1	29,561 -0.3	28,963 -2.0	29,730 2.6	29,816 0.3	30,094 0.9	29,790 -1.0	29,982 0.6	30,229 0.8	30,462 0.8	29,209 15.4	29,651 1.5	30,116 1.6
Personal savings rate	3.88	3.80	4.80	5.04	3.59	4.32	3.88	3.97	2.62	2.68	2.60	2.85	4.38	3.94	2.69
Population of labour force age (000s)	761 0.6	765 0.6	769 0.5	773 0.5	776 0.3	778 0.3	781 0.3	783 0.3	784 0.2	786 0.2	787 0.2	788 0.1	767 2.1	779 1.6	786 0.9
Labour force (000s)	530 0.6	532 0.4	536 0.8	542 1.1	546 0.8	549 0.6	551 0.3	552 0.2	553 0.2	554 0.2	555 0.1	557 0.3	535 2.1	550 2.8	555 1.0
Employment (000s)	508 0.7	510 0.4	513 0.6	520 1.4	521 0.2	523 0.3	519 -0.7	520 0.2	521 0.2	522 0.2	523 0.2	525 0.4	513 2.2	521 1.6	523 0.4
Unemployment rate	4.1	4.1	4.3	4.0	4.5	4.8	5.8	5.8	5.9	5.8	5.7	5.6	4.1	5.2	5.8
Retail sales (current \$)	14,220 3.7	14,485 1.9	14,518 0.2	14,217 -2.1	13,913 -2.1	13,927 0.1	13,996 0.5	14,133 1.0	14,175 0.3	14,268 0.7	14,392 0.9	14,473 0.6	14,360 10.6	13,992 -2.6	14,327 2.4
Housing starts (units)	7,679 35.7	7,375 -4.0	6,613 -10.3	5,646 -14.6	2,258 -60.0	4,233 87.4	4,142 -2.2	4,019 -3.0	4,045 0.6	3,925 -3.0	3,728 -5.0	3,596 -3.5	6,828 13.7	3,663 -46.3	3,823 4.4

White area represents forecast data.

All data are in millions of dollars, seasonally adjusted at annual rates, unless otherwise specified.

For each indicator, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada; CMHC Housing Time Series Database.

Alberta

- Output in goods-producing industries will contract for a third consecutive year.
- Job losses will push the provincial unemployment rate to a peak of 7.2 per cent in 2010.

Real GDP

2009	Growth -2.7	Ranking #8
2010	Growth 3.3	Ranking #3

Credit Quality

AAA

Standard & Poor's

Retail Sales

2009	Growth -7.8	Ranking #10
2010	Growth 4.0	Ranking #1

Government & Background Information

Premier	Ed Stelmach
Next election	Mar. 2012
Population (2009:2)	3,653,840
Government balance (2009-10)	-\$4.7 billion
Sources: The Conference Board of Canada; Alberta Finance.	

Global Recession Weighs Heavily on Alberta

by Todd A. Crawford

The global economic woes have wreaked havoc on Alberta. Plunging commodity prices, tight credit markets, and slowing global demand have created difficulties economy-wide. Output in the goods-producing industries will fall severely this year. The construction industry in particular will suffer, tumbling 10.1 per cent due in large part to deferrals in the development of the oil sands. The service industries will not escape the slowdown either, as they contract 0.6 per cent—the first drop in more than 25 years. The weakening service sector will combine with the free fall in goods-producing industries to push real GDP in Alberta down for the second consecutive year. After falling 0.2 per cent in 2008, the provincial economy will contract another 2.7 per cent this year—its worst performance on record.

Despite the bleak outlook this year, the troubles in Canada's main oil-producing province will be short-lived. Falling material and labour costs should provide a boost to the construction industry next year. Commodity prices are also forecast to rise further, which should spur development

activity in the non-conventional oil industry. Given the new royalty regime in Alberta, conventional oil and gas production is unlikely to make a roaring comeback in 2010. Still, following a pitiful drilling year in 2009, a rebound of 7.8 per cent is expected next year in services incidental to mining. Increased activity in oil and gas will also provide a much-needed boost to the manufacturing industry, which will rebound from two consecutive years of contraction. Increased output in goods-producing industries will lead a rebound in transportation and storage and in community and business services. Employment will also pick up, spurring consumer demand. All in all, real GDP will expand 3.3 per cent in 2010.

OIL AND GAS WEAKNESS HURTS INVESTMENT

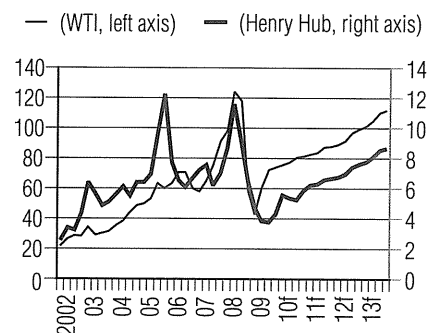
The energy sector is the most important engine driving the Alberta economy. Indeed, the strong growth in the provincial economy over the past decade can be traced back to the billions of dollars invested in oil and natural gas production. But industrial production has been cut drastically around the globe, reducing demand for oil and other primary commodities and sending prices lower in a very short period. The West Texas Intermediate (WTI) price of crude has rebounded of late, edging up toward US\$70 per barrel—still less than

Economic Indicators (2002 \$; percentage change)

	2008	2009	2010
Real GDP (basic prices)	-0.2	-2.7	3.3
Consumer Price Index	3.2	0.3	2.7
Personal disposable income	8.2	2.5	3.4
Employment	2.7	-0.9	0.8
Unemployment rate (level)	3.6	6.4	7.2
Retail sales	-0.2	-7.8	4.0
Average weekly wages	5.9	4.4	2.5
Population	2.1	2.4	1.8

Sources: The Conference Board of Canada; Statistics Canada.

Energy Prices to Recover (WTI, US\$/b; Henry Hub, US\$/Mmbtu)



f = forecast

Sources: The Conference Board of Canada; U.S. Energy Information Administration.

half the record high recorded last summer. Natural gas prices have fared worse, dropping from US\$13 to around \$3 per mmbtu. Investment will fall drastically as a result.

The extent of the weakness in natural gas prices is dictating how bad the drilling situation will get this year, since more than two-thirds of drilling in Alberta is for natural gas. According to the Petroleum Services Association of Canada (PSAC), the number of wells drilled in Alberta will fall to 6,620 this year, down 43 per cent from 2008. In an attempt to provide help to the struggling conventional drilling industry, the provincial government has amended its royalty program for the fifth time in two years, extending by one year the measures put in place last March. The new well incentive program offers a maximum five per cent royalty rate for the first year of production from new oil and gas wells. The program will also provide a credit of \$200 per metre drilled, applied on a sliding scale based on 2008 production levels. The government has also undertaken a competitiveness study to see where Alberta stands relative to other regulatory regimes across the globe. Estimates suggest that these measures will cost the province up to \$3 billion in resource revenues over the next two years.

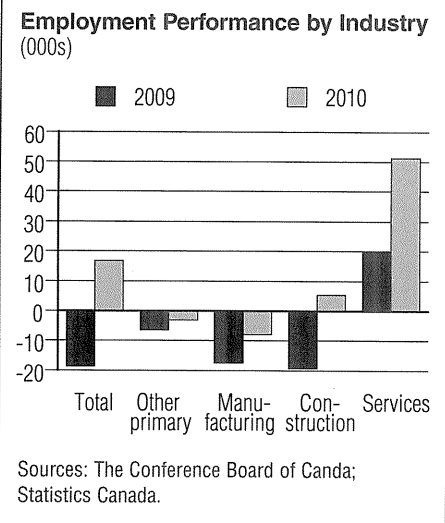
Weak drilling is not the only source of woe for Alberta this year. Investment intentions for oil sands megaprojects are a fraction of what they were just one year ago. Low oil prices, high construction costs, tight credit markets, and an ever-changing royalty regime have conspired to form a perfect storm that has brought the industry to its knees. Energy companies have taken steps to cut billions of dollars in investment spending in a bid to conserve cash in today's difficult economic environment. Because of the weak outlook for the oil and gas industries, total non-residential energy investment will contract

15.4 per cent this year. This will take a toll on the construction industry, where nearly 20,000 jobs are expected to be lost.

The slowdown has brought one benefit for Canadian energy companies—it is pushing construction costs lower. Pre-recession cost estimates had risen to prohibitive levels in some instances, which may have hurt investment intentions as well. But demand for materials has since slackened, and tightness in the province's labour markets has been alleviated. With costs now falling, and the fact that petroleum prices are forecast to rise steadily over the remainder of the forecast, investment could bounce back quickly. Drilling should rebound modestly next year, and megaprojects that take advantage of the huge resources in the province's northern regions will resume. Total non-residential investment should average annual growth of 10.1 per cent from 2010 to 2013. Construction output will benefit. After contracting 10 per cent this year, the construction industry will post 11 per cent growth in 2010 before settling down to a slightly slower growth pattern over the next three years.

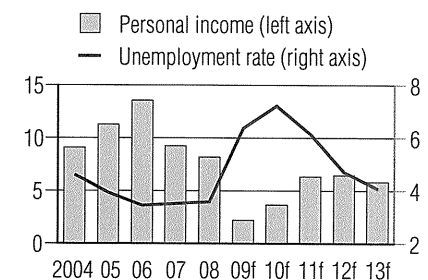
SLOWDOWN SPREADS TO REST OF ECONOMY

The effects of the investment crash will not be constrained to the construction industry. For the second consecutive year, lower oil and gas investment will manifest itself directly in lower oil and natural production. After contracting 5.3 per cent in 2008, output of mineral fuels will fall 0.9 per cent this year. Manufacturing activity will also fall, dropping 3.9 per cent as lower mineral fuels production ensures that the petroleum and coal products industry will struggle mightily. The agricultural industry will also suffer. Cattle and hog producers were already dealing with a combination of low prices and the



Slack Labor Market Takes Heat Off Income

(unemployment, per cent; personal income, percentage change)



“country of origin labelling” rules in the United States. Then, just as things were starting to look up, the H1N1 flu virus outbreak hit. With all the struggles in the province's primary industries, total output from goods producers will drop 5.7 per cent—their worst performance in nearly 25 years.

The rest of the economy will fare equally poorly. The transportation and storage industry will contract 1.8 per cent, and wholesale and retail trade will fall 7.2 per cent, as both industries rely heavily on goods producers. The job market will shed 18,700 jobs this year, with losses

concentrated in the construction, manufacturing, and other primary industries. The unemployment rate will reach 6.4 per cent. Softer labour markets will limit personal income growth to just 2.2 percent this year. Furthermore, weak job prospects are slowing the pace of migration to Alberta—net interprovincial migration will total just 24,800 this year. Combined with the weaker income growth, this will result in only 15,500 housing starts this year, which in turn will lead to just 1.3 per cent growth in the finance, insurance, and real estate industries. Service-producing industries as a whole are predicted to fall 0.6 per cent, the first such contraction since the recession of the early 1980s.

Because oil and gas investment will rebound in 2010, job creation will resume with 16,800 net new jobs expected next

year. Still, labour force growth will outpace job creation, pushing the unemployment rate up to 7.2 per cent—more than double where it stood last year. As labour markets tighten, personal income growth will pick back up, expanding 3.6 per cent in 2010, and by an average of 6.2 per cent over 2011–13. The housing sector will also recover as the energy sector turns around, household formations will encourage the construction of 29,000 new units on average per year from 2010 to 2013. A stronger residential market will spur 2.4 per cent growth in finance, insurance, and real estate in 2010, and commercial services (in support of a strong goods-producing sector) will expand 1.7 per cent.



Key Economic Indicators: Alberta
 (forecast completed Jul. 16, 2009)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2009:4	2009:1	2009:2	2009:3	2009:4	2009	2010
GDP at market prices (current \$)	283,952 6.5	293,148 3.2	297,890 1.6	290,174 -2.6	265,463 -8.5	265,514 0.0	267,531 0.8	271,182 1.4	280,929 3.6	284,346 1.2	288,508 1.5	293,925 1.9	291,291 12.4	286,927 7.3
GDP at basic prices (current \$)	275,537 7.2	284,663 3.3	289,378 1.7	281,856 -2.6	257,347 -8.7	257,344 0.0	259,288 0.8	262,834 1.4	272,450 3.7	275,725 1.2	279,559 1.4	284,804 1.9	282,858 13.3	278,134 7.3
GDP at basic prices (constant \$ 2002)	178,771 0.2	178,691 0.0	179,324 0.4	178,059 -0.7	174,070 -2.2	173,823 -0.1	173,536 -0.2	174,081 0.3	176,986 1.7	178,690 1.0	180,546 1.0	182,524 1.1	178,711 -0.2	179,687 3.3
Consumer Price Index (2002 = 1.0)	1.192 0.3	1.225 2.8	1.234 0.7	1.214 -1.6	1.209 -0.5	1.209 0.0	1.227 1.5	1.235 0.6	1.241 0.5	1.249 0.6	1.256 0.6	1.264 0.6	1.216 3.2	1.220 0.3
Implicit price deflator— GDP at basic prices (2002 = 1.0)	1.541 7.0	1.593 3.4	1.614 1.3	1.583 -1.9	1.478 -6.6	1.480 0.1	1.494 0.9	1.510 1.1	1.539 2.0	1.543 0.2	1.548 0.3	1.560 0.8	1.583 13.5	1.491 -5.8
Average weekly wages (\$, industrial composite)	912.9 1.3	925.1 1.3	939.7 1.6	955.2 1.6	969.9 1.5	971.6 0.2	974.9 0.3	982.2 0.8	987.3 0.5	994.9 0.8	1003.0 0.8	1011.9 0.9	993.2 5.9	974.7 4.4
Personal income (current \$)	168,564 3.1	170,939 1.4	173,520 1.5	175,667 1.2	174,963 -0.4	175,152 0.1	176,103 0.5	177,693 0.9	179,196 0.8	181,119 1.1	183,399 1.3	185,749 1.3	172,173 8.2	182,366 3.6
Personal disposable income (current \$)	128,175 1.9	131,411 2.5	133,739 1.8	135,279 1.2	134,677 -0.4	134,778 0.1	135,523 0.6	136,762 0.9	137,703 0.7	139,128 1.0	140,774 1.2	142,558 1.3	132,151 8.2	140,041 3.4
Personal savings rate	11.58	13.22	14.08	16.08	17.18	16.53	16.16	16.24	16.09	16.16	16.10	16.33	13.74	16.53
Population of labour force age (000s)	2,776 0.3	2,789 0.5	2,804 0.5	2,818 0.5	2,836 0.6	2,856 0.7	2,869 0.5	2,882 0.5	2,903 0.7	2,916 0.5	2,929 0.4	2,942 0.4	2,797 2.0	2,861 2.3
Labour force (000s)	2,070 1.0	2,082 0.6	2,090 0.4	2,109 0.9	2,115 0.3	2,130 0.7	2,135 0.2	2,142 0.3	2,150 0.4	2,161 0.5	2,173 0.6	2,186 0.6	2,088 2.8	2,130 2.0
Employment (000s)	1,998 0.9	2,010 0.6	2,014 0.2	2,030 0.8	2,005 -1.2	1,992 -0.7	1,989 -0.1	1,991 0.1	1,994 0.1	2,004 0.5	2,016 0.6	2,030 0.7	2,013 2.7	1,994 -0.9
Unemployment rate	3.5	3.4	3.7	3.8	5.2	6.5	6.8	7.0	7.3	7.2	7.2	7.1	3.6	6.4
Retail sales (current \$)	62,245 1.0	61,744 -0.8	61,312 -0.7	58,928 -3.9	55,762 -5.4	55,986 0.4	56,450 0.8	57,005 1.0	57,497 0.9	58,173 1.2	58,955 1.3	59,662 1.2	61,057 -0.2	58,572 4.0
Housing starts (units)	41,693 -1.7	28,885 -30.7	24,698 -14.5	21,380 -13.4	13,583 -36.5	15,433 13.6	15,326 -0.7	17,989 17.4	22,481 25.0	25,695 14.3	26,546 3.3	28,236 6.4	29,164 -39.7	25,740 65.2

White area represents forecast data.

All data are in millions of dollars, seasonally adjusted at annual rates, unless otherwise specified.

For each indicator, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada; CMHC Housing Time Series Database.

British Columbia

- The manufacturing and forestry industries will continue to curb production and bleed jobs.
- Households are feeling the recession through reduced income and job losses. Jobs lost in this recession may not be regained for years.

Real GDP

2009	Growth -2.5	Ranking #6
2010	Growth 3.4	Ranking #2

Credit Quality

AAA
Standard & Poor's

Retail Sales

2009	Growth -7.1	Ranking #9
2010	Growth 4.0	Ranking #2

Government & Background Information

Premier	Gordon Campbell
Next election	2011
Population (2009:2)	4,435,344
Government balance (estimated 2009-10)	-\$495 million
Sources: The Conference Board of Canada; British Columbia Ministry of Finance.	

Recession Hits Households Hard

by Jacqueline Johnson

The B.C. economy has taken a beating. This recession has been the worst in 27 years, and the injuries will linger. The health of the economy will improve next year with resumption of global demand coinciding with the hosting of the 2010 Olympic Games. The momentum will continue over the medium term, resulting in strong economic growth for several years. Real gross domestic product will contract 2.5 per cent this year before expanding by 3.4 per cent in 2010.

Export-oriented sectors have deteriorated in line with the fall in global demand. Wholesale and retail trade, along with transportation and storage, are facing their largest contractions in output since 1982, stifling the province's plans to develop as a major trading hub. The forestry and manufacturing industries also continue to suffer. However, the drop in U.S. housing starts has levelled off, and most global financial markets have either stabilized or shown some improvement in recent months. Therefore, while 2009 will see double-digit contractions in forestry and manufacturing output, both sectors will experience moderate growth in 2010.

The province is experiencing a nasty housing market correction, with June's (annualized) housing starts down a full 60 per cent from last year. The good news is that interest rates are low and there is minimal existing supply, pointing to a strong rebound around the corner. Housing starts will be a feeble 14,500 units in 2009, but an expected resurgence in construction will produce 21,500 starts in 2010. However, it will take two more years before housing starts rebound to a level that reflects demographic requirements. The non-residential sector will not experience a drop in investment as severe as in the residential sector. Nonetheless, several large construction projects are scheduled to be completed this year in time for the 2010 Olympics, and that will weigh down on any gains next year.

Less than half the jobs lost this year will be regained in 2010.

This recession will continue to be felt by households across the province well into next year. Altogether, employment losses in 2009 will total almost 57,000 (following seven years of strong job creation in the province). Fewer than half of these losses will be regained in 2010. Higher unemployment will result in decreased consumption for both goods

Economic Indicators

(2002 \$; percentage change)

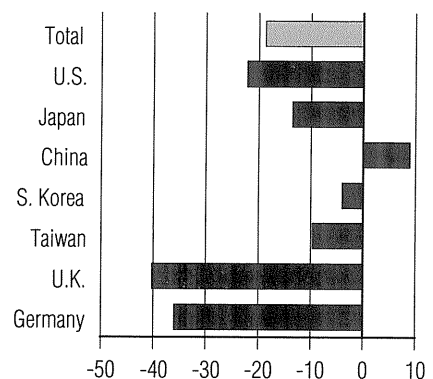
	2008	2009f	2010f
Real GDP (basic prices)	-0.1	-2.5	3.4
Consumer Price Index	2.1	0.6	2.6
Personal disposable income	6.8	1.2	3.5
Employment	2.1	-2.5	1.2
Unemployment rate (level)	4.6	7.6	8.2
Retail sales	0.4	-7.1	4.0
Average weekly wages	2.1	0.8	2.1
Population	1.6	1.5	1.1

f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

International Exports Collapse

(year-to-date percentage change, current \$)



Source: Statistics Canada.

and services and will lead to a 7.1 per cent contraction in nominal retail sales this year.

TRADE DWINDLES

Those who envision B.C. as a key hub for trade between North America and Asia are, no doubt, very disappointed in the abrupt drop in trade to date. The first four months of data show B.C.'s exports down 14 per cent (nominal), with exports to the U.S. leading the decline. Real wholesale and retail trade is also taking a heavy hit due to depressed demand, and will shrink 8.8 per cent in 2009. But there is light at the end of the tunnel. As global demand begins to pick up next year, these industries will see more stability and even begin to make modest recoveries.

Mills and plants need to ensure they have an edge when global economic growth resumes.

FORESTRY AND MANUFACTURING CRASH

Forestry is facing one of its worst years, with real output in 2009 tumbling to 1982 levels. U.S. housing starts have dropped to previously unimaginable levels. In the past six months, housing starts broke the record for lowest number of starts ever recorded—twice! Foreclosures persist, contributing to the surplus in housing supply in the market and further driving down home values. While this cycle has been slowing and Americans have been making progress toward rebalancing their pocketbooks, there is still a long road ahead before homebuilding regains its full strength. Only 560,000 units will be built this year followed by a meagre rebound to 710,000 units in 2010. Housing starts in Canada are contracting at almost the same rate this year. Furthermore, the demand for newsprint continues its decline—a decline

that is generally expected to be permanent. Drastic cuts to advertising budgets have led some newspapers to slash their production. In this environment, B.C. forestry output will contract another 15.2 per cent this year following a debilitating 17.9 per cent drop in 2008.

The manufacturing industry is intricately tied to the forestry industry and, consequently, it is facing a double-digit contraction this year as well. To date, forestry products have led the decline, but primary and fabricated metal, as well as computer and electronic categories, are also struggling. However, global demand for these products is expected to resume next year, bumping real manufacturing output up 3.1 per cent following this year's 11 per cent decline.

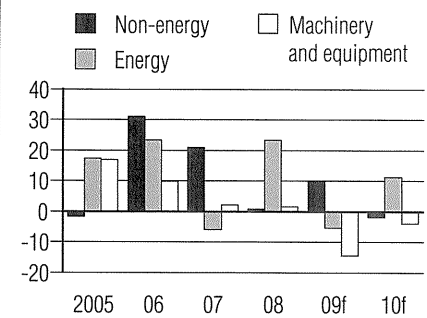
A GOLD MINE IN NATURAL GAS

Mining services are propelling the industry this year, while the natural gas industry is stable despite massive price declines. The potential for highly profitable unconventional natural gas mining has excited explorers and developers. Meanwhile, metal and non-metal mineral mining will not do well this year. Although metal prices have made some recent gains, this has been due to the Chinese stockpiling resources rather than to underlying fundamentals. Non-metal mining in the province is highly linked to non-residential construction along the west coast of North America, where it is stagnating. Overall, real mining output will expand 2.5 per cent this year, led by mining services. Real output in mineral fuels will expand by a healthy 2.6 per cent in 2010, fuelled by the return of global demand.

THE RETURN OF CONSTRUCTION

The housing market crash appears to be in its final days. There are indicators that point to a recovery just around the corner. Unit sales, for example, have

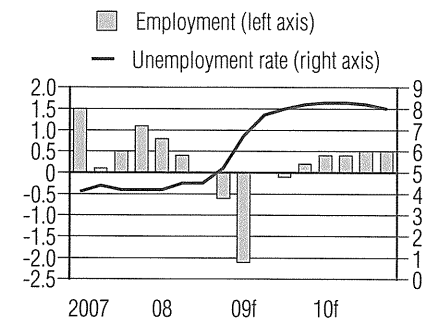
Non-Residential Investment Fluctuates
(percentage change, current \$)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Employment Losses Mount
(employment, percentage change; unemployment, per cent)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

picked up their pace. In fact, there were 29.1 per cent more units sold in June than in the same month last year—the biggest single-month increase in four years! As well, the sales-to-new-listings ratio is showing signs of recovery. The ratio plunged into buyers' market territory and bottomed out in November. Since then, prices at 2006 levels have started to lure new buyers into the market, and sales have been on the increase. In June, the market inched back into sellers' territory.

While these signs of health in the housing market are great news, it will take a little more time before housing starts recover. The new housing price index is still high, and housing starts will be weak in 2009 at

only 14,500 units—57.6 per cent lower than last year. Next year, starts will surge 48 per cent to 21,500 units. Beyond 2010, the market fundamentals are strong. Increased immigration and strong demographic drivers (such as baby boomers downsizing and their children entering the market) will result in a healthy demand for housing.

Despite the combined effects of a global downturn and the end of Olympic investment spending, nominal non-residential investment in the province will hold relatively strong this year and next. This year, investment will be propped up by non-energy projects related to the 2010 Olympic Winter Games and the federal and provincial governments' infrastructure initiatives. In 2010, the energy sector will take over as companies develop unconventional gas mining projects.

Meanwhile, nominal investment in machinery and equipment will contract this year and next—a situation that has the potential to hinder growth in the medium term. Many firms would do well to invest in their mills and plants now so as to ensure they have an edge when global

economic growth resumes. Instead, nominal investment in machinery and equipment will contract 14.3 per cent this year and another 3.8 per cent in 2010.

RECESSION STEALS JOBS, REDUCES INCOME

Recessions impact households the most through income and employment losses. While the economy will technically depart from recessionary levels this summer, households that have suffered job losses and declining income will continue to struggle for several more quarters. Fifty-seven thousand British Columbians will lose their jobs in 2009, while only 26,800 jobs will be created next year, leaving many unemployed. The unemployment rate will top 8.3 per cent next year, double the rate experienced two years ago when job creation was at its peak. The manufacturing and construction industries will bleed the most jobs in 2009, losing 20,400 and 26,900 jobs respectively.

Furthermore, nominal total labour income growth will be the second-lowest in the country, ahead only of Ontario.

Additionally, Ontario and B.C. are the only provinces where income will actually decline this year. However, B.C.'s income situation will turn around next year with help from the Olympic Games and rising global demand. Incomes will expand 3.3 per cent—a full percentage point higher than the national rate. Income losses this year will be reflected in retail sales, as people without jobs and those with lower incomes trim spending. Nominal sales will contract 7.1 per cent this year—again, the second-worst rate in the entire country.

Forecast Risks



- If B.C. homebuyers take advantage of lower housing prices and start buying en masse, the domestic housing market could return to health more quickly.
- If global financial markets take longer to stabilize, the recovery in global demand—and therefore B.C.'s GDP—could be a lot slower.

Source: The Conference Board of Canada.

Key Economic Indicators: British Columbia

(forecast completed Jul. 16, 2009)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2008:4	2009:1	2009:2	2009:3	2009:4	2008	2009	2010
GDP at market prices (current \$)	197,275 0.7	201,621 2.2	202,473 0.4	193,137 -4.6	187,963 -2.7	188,134 0.1	189,285 0.6	191,502 1.2	196,169 2.4	198,390 1.1	201,239 1.4	204,235 1.5	198,627 3.5	189,221 -4.7	200,008 5.7
GDP at basic prices (current \$)	182,181 1.3	186,402 2.3	187,205 0.4	178,217 -4.8	173,406 -2.7	173,479 0.0	174,500 0.6	176,527 1.2	180,959 2.5	182,926 1.1	185,185 1.2	187,874 1.5	183,501 4.2	174,478 -4.9	184,236 5.6
GDP at basic prices (constant \$ 2002)	150,260 -0.9	150,900 0.4	150,747 -0.1	149,047 -1.1	146,177 -1.9	146,126 0.0	146,360 0.2	147,201 0.6	149,571 1.6	150,775 0.8	152,081 0.9	153,350 0.8	150,239 -0.1	146,466 -2.5	151,444 3.4
Consumer Price Index (2002 = 1.0)	1.103 0.2	1.127 2.2	1.141 1.2	1.122 -1.7	1.118 -0.4	1.125 0.7	1.136 1.0	1.143 0.6	1.150 0.5	1.156 0.6	1.163 0.6	1.170 0.6	1.123 2.1	1.131 0.6	1.160 2.6
Implicit price deflator— GDP at basic prices (2002 = 1.0)	1.212 2.2	1.235 7.9	1.242 0.5	1.196 -3.7	1.186 -0.8	1.187 0.1	1.192 0.4	1.199 0.6	1.210 0.9	1.213 0.3	1.218 0.4	1.225 0.6	1.221 4.4	1.191 -2.5	1.216 2.1
Average weekly wages (\$, industrial composite)	760.8 0.4	765.0 0.6	769.6 0.6	765.5 -0.5	770.2 0.6	768.3 -0.2	770.4 0.3	775.7 0.7	780.4 0.6	784.9 0.6	789.9 0.6	795.5 0.7	765.2 2.1	771.2 0.8	787.7 2.1
Personal income (current \$)	159,286 3.0	159,013 -0.2	159,802 0.5	160,480 0.4	159,794 -0.4	160,441 0.4	161,385 0.6	162,935 1.0	164,742 1.1	166,044 0.8	167,842 1.1	169,453 1.0	159,645 5.2	161,139 0.9	167,020 3.6
Personal disposable income (current \$)	124,417 3.6	124,967 0.4	125,735 0.6	125,917 0.1	125,715 -0.2	126,199 0.4	126,943 0.6	128,188 1.0	129,486 1.0	130,456 0.7	131,816 1.0	133,063 0.9	125,259 6.8	126,761 1.2	131,205 3.5
Personal savings rate	-2.74 3.615	-3.25 0.5	-3.32 0.5	-1.48 3.668	-0.57 3.681	-1.34 3.697	-1.78 3.705	-1.68 3.722	-1.85 3.745	-1.76 3.758	-1.84 3.771	-1.58 3.785	-2.70 3.642	-1.34 3.701	-1.76 3.765
Population of labour force age (000s)	3,615 0.5	3,633 0.5	3,652 0.5	3,668 0.4	3,681 0.4	3,697 0.4	3,705 0.2	3,722 0.5	3,745 0.6	3,758 0.4	3,771 0.4	3,785 0.4	3,642 2.0	3,701 1.6	3,765 1.7
Labour force (000s)	2,412 0.9	2,429 0.7	2,431 0.1	2,432 0.1	2,420 -0.5	2,445 1.0	2,450 0.2	2,461 0.4	2,475 0.6	2,484 0.3	2,493 0.4	2,501 0.3	2,426 2.5	2,444 0.7	2,488 1.8
Employment (000s)	2,310 0.8	2,320 0.4	2,320 0.0	2,306 -0.6	2,257 -2.1	2,257 0.0	2,255 -0.1	2,260 0.2	2,269 0.4	2,277 0.4	2,289 0.5	2,301 0.5	2,314 2.1	2,257 -2.5	2,284 1.2
Unemployment rate	4.2	4.5	4.5	5.2	6.7	7.7	8.0	8.2	8.3	8.3	8.2	8.0	4.6	7.6	8.2
Retail sales (current \$)	57,575 0.2	57,512 -0.1	57,148 -0.6	54,017 -5.5	51,878 -4.0	52,274 0.8	52,704 0.8	53,237 1.0	53,884 1.2	54,303 0.8	54,915 1.1	55,343 0.8	56,563 0.4	52,523 -7.1	54,611 4.0
Housing starts (units)	39,176 -7.8	37,863 -3.4	34,955 -7.7	25,290 -27.7	13,559 -46.4	12,433 -8.3	14,485 16.5	17,683 22.1	17,465 -1.2	19,886 13.9	21,452 7.9	27,276 27.2	34,321 -12.4	14,540 -57.6	21,520 48.0

White area represents forecast data.

All data are in millions of dollars, seasonally adjusted at annual rates, unless otherwise specified.

For each indicator, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada; CMHC Housing Time Series Database.

Key Economic Indicators: Canada

(forecast completed Jul. 16, 2009)

	2008:1	2008:2	2008:3	2008:4	2009:1	2009:2	2009:3	2008:4	2009:1	2009:2	2009:3	2009:4	2008	2009	2010
GDP at market prices (current \$)	1,578,672	1,618,380	1,632,668	1,570,604	1,523,216	1,530,548	1,543,835	1,561,448	1,589,326	1,603,244	1,621,983	1,644,710	1,600,081	1,539,762	1,614,816
	1.2	2.5	0.9	-3.8	-3.0	0.5	0.9	1.1	1.8	0.9	1.2	1.4	4.4	-3.8	4.9
GDP at basic prices (current \$)	1,484,196	1,523,116	1,537,096	1,477,216	1,432,096	1,438,820	1,451,289	1,467,717	1,494,122	1,506,449	1,521,498	1,542,305	1,505,406	1,447,480	1,516,094
	1.7	2.6	0.9	-3.9	-3.1	0.5	0.9	1.1	1.8	0.8	1.0	1.4	4.9	-3.8	4.7
GDP at basic prices (constant \$ 2002)	1,226,610	1,228,301	1,230,997	1,217,524	1,198,302	1,198,645	1,199,798	1,204,450	1,219,580	1,228,438	1,238,002	1,248,273	1,225,858	1,200,299	1,233,573
	0.0	0.1	0.2	-1.1	-1.6	0.0	0.1	0.4	1.3	0.7	0.8	0.8	0.5	-2.1	2.8
Consumer Price Index (2002 = 1.0)	1.122	1.145	1.157	1.140	1.136	1.147	1.155	1.163	1.169	1.176	1.183	1.191	1.141	1.150	1.180
	0.3	2.0	1.0	-1.5	-0.3	0.9	0.8	0.6	0.6	0.6	0.6	0.6	2.4	0.8	2.6
Implicit price deflator—GDP at basic prices (2002 = 1.0)	1.210	1.240	1.249	1.213	1.195	1.200	1.210	1.219	1.225	1.226	1.229	1.236	1.228	1.206	1.229
	1.7	2.5	0.7	-2.8	-1.5	0.4	0.8	0.7	0.5	0.1	0.2	0.5	4.4	-1.8	1.9
Average weekly wages (\$, industrial composite)	785.3	792.1	795.8	799.2	804.3	803.9	805.9	811.2	814.2	819.0	824.2	830.2	793.1	806.3	821.9
	0.1	0.9	0.5	0.4	0.6	-0.1	0.3	0.7	0.4	0.6	0.6	0.7	2.3	1.7	1.9
Personal income (current \$)	1,217,668	1,222,648	1,229,092	1,236,932	1,229,160	1,231,116	1,235,593	1,245,230	1,253,451	1,264,369	1,276,484	1,289,795	1,226,585	1,235,275	1,271,025
	2.2	0.4	0.5	0.6	-0.6	0.2	0.4	0.8	0.7	0.9	1.0	1.0	4.8	0.7	2.9
Personal disposable income (current \$)	938,832	948,596	955,512	960,852	955,260	956,581	960,216	967,908	973,793	981,966	991,324	1,001,586	950,948	959,991	987,167
	2.6	1.0	0.7	0.6	-0.6	0.1	0.4	0.8	0.6	0.8	1.0	1.0	5.9	1.0	2.8
Personal savings rate	3.33	3.36	3.13	4.91	4.72	3.94	3.52	3.62	3.34	3.30	3.32	3.36	3.68	3.95	3.33
Population of labour force age (000s)	26,777	26,874	26,973	27,072	27,155	27,266	27,347	27,429	27,513	27,596	27,680	27,763	26,924	27,299	27,638
	0.3	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	1.4	1.4	1.2
Labour force (000s)	18,167	18,244	18,246	18,323	18,301	18,374	18,388	18,437	18,497	18,576	18,635	18,702	18,245	18,375	18,603
	0.5	0.4	0.0	0.4	-0.1	0.4	0.1	0.3	0.3	0.4	0.3	0.4	1.7	0.7	1.2
Employment (000s)	17,093	17,129	17,125	17,146	16,907	16,835	16,774	16,776	16,792	16,849	16,925	17,010	17,123	16,823	16,894
	0.5	0.2	0.0	0.1	-1.4	-0.4	-0.4	0.0	0.1	0.3	0.5	0.5	1.5	-1.8	0.4
Unemployment rate	5.9	6.1	6.1	6.4	7.6	8.4	8.8	9.0	9.2	9.3	9.2	9.1	6.1	8.4	9.2
Retail sales (current \$)	428,077	429,866	431,527	414,717	405,282	406,647	409,056	412,411	415,892	419,654	424,046	429,067	426,047	408,349	422,165
	1.9	0.4	0.4	-3.9	-2.3	0.3	0.6	0.8	0.8	0.9	1.0	1.2	3.4	-4.2	3.4
Housing starts (units)	234,974	217,390	207,389	184,471	139,400	125,311	134,086	142,214	148,178	160,911	170,477	179,454	211,056	135,253	164,755
	8.6	-7.5	-4.6	-11.1	-24.4	-10.1	7.0	6.1	4.2	8.6	5.9	5.3	-7.6	-35.9	21.8

White area represents forecast data.

All data are in millions of dollars, seasonally adjusted at annual rates, unless otherwise specified.

For each indicator, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada; CMHC Housing Time Series Database.

Gross Domestic Product by Province and Industry

(forecast completed Jul. 16, 2009)

	Newfoundland and Labrador			Prince Edward Island			Nova Scotia			New Brunswick			Quebec		
	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010
Agriculture	54 6.8	54 0.5	55 1.3	198 -9.7	199 0.3	201 1.0	217 -2.7	218 0.2	222 2.0	294 -13.0	297 0.9	301 1.3	2,946 -7.3	2,975 1.0	3,020 1.5
Forestry	56 1.2	44 -22.9	44 0.5	7 -17.6	6 -7.5	6 0.2	107 -3.7	91 -15.3	92 0.8	247 -26.0	228 -7.7	228 0.2	892 -12.7	811 -9.1	823 1.5
Fishing & trapping	312 12.4	302 -3.2	304 0.7	107 14.2	103 -4.2	103 0.5	352 2.9	337 -4.3	343 2.0	159 12.4	152 -4.5	153 0.9	112 15.5	109 -2.5	108 -0.8
Mining	5,413 -3.7	4,603 -15.0	4,476 -2.8	0 0.2	0 -2.7	0 2.3	835 4.8	778 -6.9	743 -4.5	215 5.6	215 -0.1	234 8.6	1,106 2.8	1,085 -2.0	1,267 16.8
Manufacturing	898 7.4	813 -9.5	856 5.2	443 -2.2	437 -1.3	447 2.3	2,861 -0.8	2,640 -7.7	2,714 2.8	2,516 -6.3	2,440 -3.0	2,505 2.7	45,288 -2.4	42,235 -6.7	43,105 2.1
Construction	699 3.1	804 15.0	742 -7.7	182 0.7	182 0.2	192 5.6	1,663 6.8	1,650 -0.8	1,546 -6.3	1,581 3.2	1,563 -1.1	1,382 -11.6	14,903 7.6	15,273 2.5	15,329 0.4
Utilities	554 2.0	550 -0.6	564 2.5	45 0.0	48 6.3	48 0.4	587 -2.0	585 -0.3	601 2.6	710 -5.8	688 -3.0	707 2.7	9,724 -1.1	9,613 -1.1	9,899 3.0
Goods-producing industries	7,987 -1.0	7,170 -10.2	7,040 -1.8	982 -1.8	975 -0.7	998 2.3	6,623 1.7	6,299 -4.9	6,260 -0.6	5,722 -4.4	5,584 -2.4	5,510 -1.3	74,971 -0.7	72,102 -3.8	73,552 2.0
Transportation, warehousing & information	1,063 4.2	1,074 1.1	1,073 -0.1	215 1.0	214 -0.7	216 1.0	1,995 0.1	1,988 -0.3	2,015 1.4	1,863 0.6	1,861 -0.1	1,865 0.2	20,228 1.3	20,012 -1.1	20,292 1.4
Wholesale & retail trade	1,532 5.5	1,563 2.1	1,577 0.9	381 1.7	386 1.3	390 1.2	3,034 2.4	3,029 -0.2	3,046 0.6	2,667 1.1	2,651 -0.6	2,703 1.9	30,044 2.7	29,390 -2.2	29,762 1.3
Finance, insurance & real estate	2,210 3.9	2,242 1.5	2,284 1.9	692 1.6	697 0.7	713 2.2	5,661 3.0	5,791 2.3	5,924 2.3	3,916 2.9	3,982 1.7	4,088 2.7	42,795 2.6	43,455 1.5	44,456 2.3
Community, business & personal services	3,700 3.3	3,816 3.1	3,872 1.5	1,021 1.9	1,029 0.8	1,053 2.3	6,928 2.2	7,113 2.7	7,234 1.7	5,163 2.4	5,396 4.5	5,861 8.6	64,113 2.1	64,670 0.9	65,570 1.4
Public administration & defence	1,325 2.4	1,339 1.0	1,357 1.3	482 2.8	502 4.1	519 3.4	2,846 2.1	2,947 3.6	3,019 2.4	2,082 2.4	2,133 2.5	2,189 2.6	15,857 2.2	16,233 2.4	16,566 2.1
Service-producing industries	9,830 3.7	10,035 2.1	10,163 1.3	2,791 1.9	2,827 1.3	2,890 2.2	20,464 2.2	20,868 2.0	21,239 1.8	15,692 2.1	16,023 2.1	16,706 4.3	173,038 2.2	173,760 0.4	176,646 1.7
All industries	17,999 -0.1	17,386 -3.4	17,385 0.0	3,793 1.0	3,822 0.8	3,908 2.2	27,048 2.2	27,128 0.3	27,460 1.2	21,384 0.1	21,577 0.9	22,186 2.8	248,270 1.2	246,119 -0.9	250,455 1.8

White area represents forecast data.

All data are in millions of 2002 dollars. For each industry, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada.

Gross Domestic Product by Province and Industry

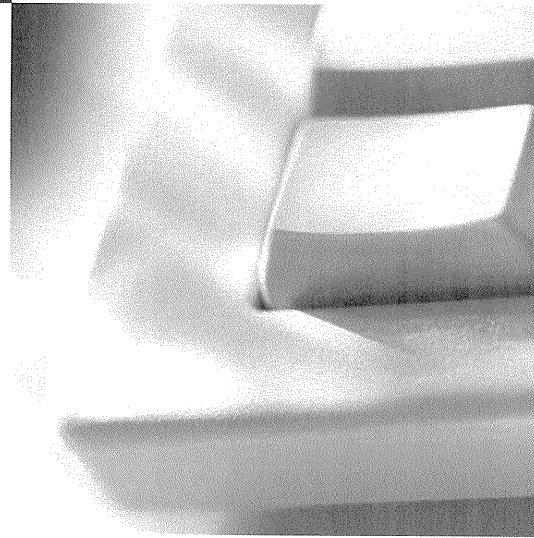
(forecast completed Jul. 16, 2009)

	Ontario			Manitoba			Saskatchewan			Alberta			British Columbia		
	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010
Agriculture	4,573 1.2	4,550 -0.5	4,618 1.5	1,801 5.0	1,741 -3.3	1,785 2.5	4,549 14.3	4,003 -12.0	4,443 11.0	4,688 3.3	4,219 -10.0	4,641 10.0	1,145 -3.0	1,164 1.7	1,187 2.0
Forestry	530 -10.5	491 -7.4	499 1.7	35 -16.0	33 -7.4	33 0.9	3 -44.3	2 -23.2	2 0.2	263 -11.3	245 -7.0	246 0.7	2,618 -17.9	2,219 -15.2	2,249 1.3
Fishing & trapping	51 12.2	52 1.7	52 -1.5	8 5.0	8 1.8	8 -0.4	0 32.9	0 1.7	0 -0.5	1 10.7	1 1.5	1 -0.5	108 -16.2	102 -5.3	103 0.6
Mining	2,727 5.9	2,491 -8.7	2,687 7.9	630 -5.0	603 -4.3	640 6.1	5,524 0.8	4,789 -13.3	5,117 6.8	33,117 -4.9	31,842 -3.8	32,981 3.6	4,354 -2.5	4,461 2.5	4,549 2.0
Manufacturing	85,222 -7.3	72,197 -15.3	76,395 5.8	5,003 1.0	4,784 -4.4	4,886 2.1	3,005 5.7	2,925 -2.6	2,991 2.2	16,444 -2.0	15,808 -3.9	15,997 1.2	13,931 -10.4	12,402 -11.0	12,783 3.1
Construction	25,725 -1.4	24,606 -4.4	26,151 6.3	2,156 14.4	2,325 7.9	2,261 -2.8	2,490 16.4	2,790 12.0	2,882 3.3	15,127 0.0	13,596 -10.1	15,119 11.2	9,406 4.8	8,544 -9.2	9,411 10.1
Utilities	9,989 0.8	9,699 -2.9	10,016 3.3	1,561 0.0	1,671 7.1	1,719 2.9	967 -0.9	940 -2.8	966 2.8	3,710 -0.2	3,488 -6.0	3,588 2.9	3,182 -3.8	3,018 -5.2	3,052 1.1
Goods-producing industries	128,817 -5.0	114,086 -11.4	120,418 5.6	11,194 3.4	11,166 -0.2	11,331 1.5	16,538 7.2	15,450 -6.6	16,401 6.2	73,349 -2.6	69,199 -5.7	72,573 4.9	34,744 -5.6	31,911 -8.2	33,334 4.5
Transportation, warehousing & information	38,617 0.8	38,150 -1.2	38,777 1.6	3,916 1.5	3,921 0.1	3,977 1.4	3,299 1.9	3,329 0.9	3,393 1.9	14,885 0.7	14,614 -1.8	14,923 2.1	15,289 0.2	14,872 -2.7	15,241 2.5
Wholesale & retail trade	59,117 0.6	53,912 -8.8	55,147 2.3	5,108 4.4	5,016 -1.8	5,106 1.8	5,004 9.2	4,557 -8.9	4,604 1.0	19,950 2.9	18,508 -7.2	18,993 2.6	17,730 -1.2	16,162 -8.8	16,579 2.6
Finance, insurance & real estate	112,787 2.1	115,024 2.0	118,200 2.8	7,210 2.7	7,407 2.7	7,573 2.2	5,963 4.0	6,104 2.4	6,254 2.5	29,541 4.5	29,910 1.2	30,628 2.4	35,320 2.5	35,673 1.0	36,659 2.8
Community, business & personal services	124,012 1.6	126,244 1.8	129,386 2.5	9,250 2.4	9,404 1.7	9,582 1.9	7,692 3.4	7,905 2.8	8,011 1.3	38,867 3.1	39,256 1.0	40,020 1.9	39,387 2.3	39,860 1.2	41,458 4.0
Public administration & defence	26,007 2.5	26,827 3.2	27,794 3.6	2,685 2.1	2,762 2.9	2,826 2.3	1,962 2.1	2,042 4.0	2,079 1.8	6,937 5.0	7,212 4.0	7,371 2.2	7,846 3.8	8,065 2.8	8,249 2.3
Service-producing industries	360,539 1.6	360,157 -0.1	369,304 2.5	28,168 2.7	28,510 1.2	29,064 1.9	23,919 4.4	23,937 0.1	24,341 1.7	110,180 3.2	109,499 -0.6	111,935 2.2	115,572 1.6	114,632 -0.8	118,186 3.1
All industries	491,833 -0.2	476,723 -3.1	492,202 3.2	39,256 2.5	39,571 0.8	40,290 1.8	39,460 4.6	38,394 -2.7	39,749 3.5	178,711 -0.2	173,877 -2.7	179,687 3.3	150,239 -0.1	146,466 -2.5	151,444 3.4

White area represents forecast data.

All data are in millions of 2002 dollars. For each industry, the first line is the level and the second line is the percentage change from the previous period.

Sources: The Conference Board of Canada; Statistics Canada.

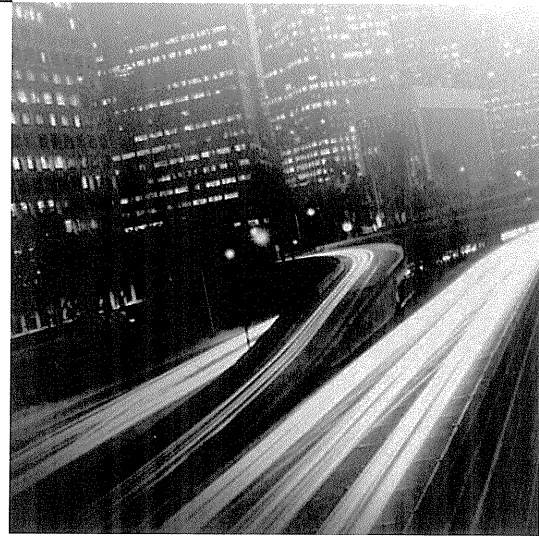
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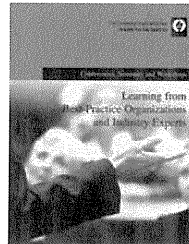
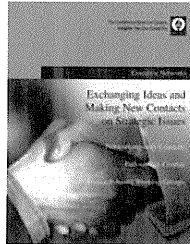
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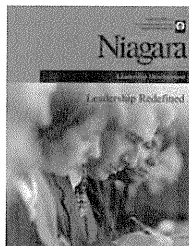
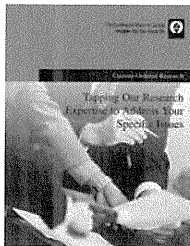
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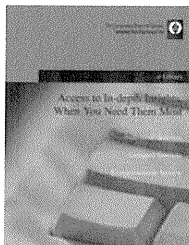
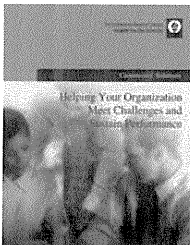
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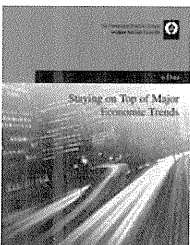
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Publication 10-040
E-copy: \$1,995

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HOUSING MARKET INFORMATION

HOUSING MARKET OUTLOOK

Canada Edition



Canada Mortgage and Housing Corporation

Date Released: Second Quarter 2009

Housing markets easing

Overview¹**Housing Starts:****2009:** 141,900**2010:** 150,300**Resales:****2009:** 357,800**2010:** 386,100

Housing starts: The downturn in economic activity and in the employment market will cause housing starts to decrease from 211,056 units in 2008 to 141,900 units in 2009 and to increase to 150,300 units in 2010. Both singles and multiples will see declines in 2009.

Resales: Sales of existing homes through the Multiple Listing Service^{®2} (MLS[®]) are forecast to decline from 433,990 units in 2008 to 357,800 units in 2009, with an increase to 386,100 units in 2010.

Resale prices: After several years of strong gains, the average MLS[®] price is expected to decline by 6.8

per cent in 2009 as sales of existing homes moderate and new listings continue to increase. The average MLS[®] price is expected to see minimal change in 2010.

Provincial Spotlight

Alberta: The province, which experienced several years of very strong energy-driven economic activity, is now facing different economic conditions. Provincial home builders are adjusting to the rise in completed and unabsorbed units and weaker demand by starting fewer housing units.

Ontario: Given its strong ties to the U.S. economy, Ontario is experiencing a downturn in economic activity, but will likely see some gradual recovery next year. As a result, new home construction will slow to 51,325 units in 2009 and 52,300 units in 2010. Housing starts have been running above demographic requirements in recent years and this trend will be reversed in the next few years.

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¹The outlook is subject to a heightened degree of uncertainty. Although point forecasts are presented in this publication, CMHC also presents forecast ranges and risks where appropriate. The forecasts included in this document are based on information available as of April 30, 2009.

²Multiple Listing Service (MLS) is a registered certification mark owned by the Canadian Real Estate Association.

National Housing Outlook

In Detail

Housing starts this year will decrease from about 211,000 units last year to 141,900 units in 2009 and 150,300 units in 2010. Given the large degree of economic uncertainty, we have considered an array of economic scenarios to generate a range for our housing outlook in 2009 and 2010.

Accordingly, we expect starts to be between 125,000 and 160,000 units in 2009 and between 130,000 and 180,000 units in 2010.

The new home market is now moderating due to three key factors. First, strong house price growth between 2002 and 2007 has tempered home ownership demand particularly in Western Canada. Second, the record high levels of new listings have increased the competition from the existing home market and reduced spillover demand. And, finally, uncertainty about the economic outlook is a contributing factor restraining demand for home ownership.

Forecasts for economic growth by private sector forecasters continued to be revised down significantly in recent months. For example, in January the average consensus forecast of private sector economists for Canadian GDP growth for 2009 was -0.7 per cent. In April, this average forecast for growth was revised down to -2.3 per cent.

Overall in 2009, housing starts will decline in all areas of Canada and more so in Western Canada and

Ontario. By 2010, however, all provinces will see increases in housing starts.

Single-detached housing starts will decrease in 2009

The rising house prices of previous years, as well as uncertainty about the economic outlook, will be the main causes of the continued moderation in single-detached housing starts. From a Canada perspective, singles are expected to decline to a level ranging between 53,800 and 71,000 units in 2009, and to increase marginally to a level ranging between 60,500 and 81,200 units in 2010.

All ten provinces in Canada will see fewer single-detached starts during 2009; Saskatchewan will experience the largest decline to 2,300 units, followed by Ontario to 17,850 units. Moving into 2010, however, an improvement in economic prospects across Canada will help to push single-detached starts up in all regions. British Columbia and Alberta are expected to lead in this rebound.

Multi-family housing increases in popularity

Over the past few years, house prices have moved higher, thus less expensive multi-family housing (row, semi-detached, and apartment units) have increased in popularity relative to single-detached housing. Despite this trend, the multiple starts segment will also decrease this year. For 2009, it is expected that multiple starts will decrease to a

level ranging between 71,200 and 89,000 units. The largest declines will occur in Alberta, Saskatchewan, and British Columbia. Heading into 2010, however, economic prospects are expected to become more positive. Because of this, all provinces will see positive growth in the construction of multiple-family units. Multiple starts will be in a range of 69,500 to 98,800 units in 2010.

Apartment construction had been growing for 12 consecutive years since bottoming out at just over 23,000 starts in 1996. However, and not surprisingly, 2009 will see a decline in starts to 56,225 units. 2010 will see an increase to 57,300 units.

MLS® sales will decrease

Existing home sales activity will decrease to 357,800 units this year, but will rebound to 386,100 in 2010 as economic activity becomes more positive across Canada. As is the case for housing starts, we have generated a range of forecasts for MLS® sales that reflect different economic scenarios. For 2009, we forecast that MLS® sales will be between 320,000 and 380,000 units. In 2010, MLS® sales will be between 350,000 and 430,000 units.

Resale markets move back into balance/buyers' ranges

The strong sellers' market conditions in recent years were reflected in strong upward pressure on the average price of homes, which increased in the 9 to 11 per

cent range between 2002 and 2007. The first half of 2008 saw an easing in MLS® sales and higher levels of new listings. This brought the Canadian resale market back into buyers' market territory by the end of 2008. Balanced to buyers' market conditions, combined with decreased sales activity in the provinces of British Columbia and Alberta, where the provincial average prices are significantly higher than the Canadian average, will cause growth in the average MLS® price to fall in 2009. For 2009, prices are expected to decrease by 6.8 per cent to \$283,100 and remain at that average in 2010. While the Atlantic provinces will see stable or rising prices, the other provinces will see declines in 2009. The adjustments will be more important in B.C. and Alberta, where price gains were particularly strong in recent years.

Risks to the Outlook

Due to the heightened uncertainty related to the economic outlook, it is important to consider a range of likely outcomes around these point forecasts.

If the U.S. recession proves to be deeper and more prolonged than is currently expected, then job losses in Canada could be greater than forecast. In turn, this could cause the demand for home ownership to fall.

There has been a strong policy response to the economic downturn. This will continue by governments at all levels in many countries. Central banks throughout the world, including Canada, have dramatically cut interest rates. The impact of existing and future stimulus could boost

economic growth beyond expectations, which would lead to stronger job creation and increased demand for ownership housing.

When taking account of these factors, we expect that housing starts will be in the 125,000 to 160,000 unit range for 2009 and 130,000 to 180,000 unit range for 2010. Existing home sales through MLS® services are likely to be in the 320,000 to 380,000 unit range for 2009 and 350,000 to 430,000 unit range for 2010.

Trends Impacting Housing

Mortgage Rates

The Bank of Canada has cut the target for the Overnight Rate. The rate was 4 per cent at the start of 2008 and has since fallen to 0.25 per cent.

Mortgage rates are expected to be relatively stable throughout 2009, remaining within 25-75 basis points of their current levels. Posted mortgage rates will increase very gradually during the course of 2010, reflecting a rise in Government of Canada bond yields. For 2010, the one-year posted mortgage rate will be in the 4.75-6.00 per cent range, while three and five-year posted mortgage rates are forecast to be in the 5.00-6.75 per cent range.

Migration

Net migration (immigration minus emigration) is forecast to fall to about 250,000 in 2009. Historically high levels of migration, which supported housing demand, will moderate. All regions, except for

Ontario and Quebec, will experience a decline in net migration. For 2010, declines are expected to conclude, with net migration set to increase to about 265,000.

Employment and Income

Employment was reduced by 270,000 positions during the first quarter of 2009. Due to these economic conditions, employment is expected to decrease by 1.9 per cent this year and increase 0.4 per cent for 2010. With respect to the unemployment rate, the average consensus forecast of private forecasters for the unemployment rate for 2009 has been revised up from a forecasted rate of 7.4 per cent in January to a forecasted rate of 8.6 per cent in April.

TRENDS AT A GLANCE

Key Factors and their Effects on Residential Construction

Factor	Comment
Mortgage Rates	Movements in mortgage rates are difficult to predict due to volatile economic conditions. Nevertheless, rates are expected to remain steady this year and edge higher in 2010. Mortgage rates will remain very low in a historical context.
Employment	During 2008, a near record share of Canadians were employed. Due to the economic downturn, employment is expected to decrease in 2009. The job market is expected to turn back up in 2010.
Income	Tight labour markets have put strong upward pressure on personal income growth in recent years. Softer labour markets in 2009 will cause growth in wages and incomes to slow for at least a year. By 2010, income growth will strengthen along with economic activity.
Net Migration	Net migration is forecast to decrease from record levels in 2008, but will remain high. An improving job market will favour an increase in net migration for 2010.
Natural Population Increase	The low birth rate is slowing the rate of increase in the natural population (births minus deaths). This will lessen the demand for additional housing stock in the medium and longer term.
Resale Market	Slowing sales combined with record levels of listings have pushed the majority of Canadian existing home markets into balanced or buyers' territory. As a result, the average MLS® price is forecast to decrease in 2009. Resale market conditions will be mixed from province to province but leave the Canadian average price near the \$283,000 mark.
Vacancy Rates	Increased competition from the condo market and modest rental construction will be partly offset by strong rental demand due to high immigration and a large gap between the cost of home ownership and renting. As a result, vacancy rates across Canada's metropolitan centres will remain relatively stable this year and next.

Special Report: Outlook for Housing Starts 2011-2013

The outlook for the housing market is uncertain for the near term due, in large part, to continuing economic volatility. Housing starts will be near the 142,000 level for 2009. Over the long term it is expected that residential construction will gradually increase as factors that drive housing become more stimulative and housing demand moves more in line with demographic fundamentals.

Housing starts are forecast to decrease from their near-record pace in recent years to reach 141,900 in 2009. The overall level of starts is being impacted by the current economic downturn and by the fact that starts are moving more in line with the overall rate of household formation. Moving forward, housing starts are forecast to trend upward to 176,800 units by 2013.

Economic and demographic conditions expected to strengthen

Following the downturn in 2009, Canadian GDP is forecast to grow by a modest 1.7 per cent in 2010. The impact of low interest rates and fiscal stimulus will lead to a strong rebound in 2011 when GDP growth will be in the 3.5 to 4.5 per cent range. Over the 2012 to 2013 period, growth in GDP is projected to average 2.5 to 3.5 per cent. Employment growth is expected to be constrained in 2009 and 2010, but will strengthen over the medium term to average between 1.2 and 2.0 per cent annually over the 2011 to 2013 period.

The Bank of Canada's target for the overnight rate has fallen from 4 per cent at the start of 2008 to 0.25 per cent in April 2009 to counter the economic downturn and to help increase consumer spending in light of global economic and financial issues. We expect that both short and long term interest rates will be

fairly stable in 2009, however, rates will begin to trend gradually higher in 2010. Longer term mortgage rates, such as the five year fixed rate, will stay historically low but will trend gradually higher between 2010 and 2013.

Population growth is a key driver of housing demand over the longer term and a major contributor to population growth is immigration. Net migration is expected to fall from its record pace in 2008, but will remain at high levels in 2009. As the outlook becomes more positive over the 2010-2013 period, net migration is expected to increase. This will help boost population growth and household formation. Accordingly, this will support housing starts through 2013.

Housing starts will remain in-line with the overall rate of household formation

As the economy picks-up, so will starts. By 2011 starts are forecast to be 162,650 units and by 2012 they will reach 163,450 units. Finally, by the year 2013, starts are forecast to be 176,800 units. However, starts are not expected to move back to the record 200,000 level.

Historical lows in mortgage rates are expected over the next two years. This will help to buoy Canada's housing sector in the short term as the economy goes through a downturn.

In 2010 through 2012, we expect that the economy will recover. With low, but gradually rising mortgage rates and stronger job growth, housing starts are expected to strengthen. Given the short-lived nature of the housing market slowdown, we do not expect a significant build-up of pent-up demand. Because of this, we do not expect housing starts to return to the 200,000 plus unit pace of recent years. Rather, housing starts will remain in a range that is consistent with demographic fundamentals over the 2010 to 2013 period.

Of course there will continue to be a certain degree of uncertainty over the medium term, so it is appropriate to consider a range for our housing starts forecast in the medium term. On the downside, lingering effects from the financial market crisis and sluggish world economic growth could cause housing starts to remain lower than forecast over the medium term. On the other hand, the considerable monetary and fiscal stimulus introduced in recent months could lead to stronger than forecast economic and employment growth. In this case, housing starts could be stronger than forecast. As a result, we expect housing starts to be in the 143,000 to 187,000 unit range in 2011, in the 144,000 to 188,000 unit range for 2012, and in the 157,000 to 198,000 unit range in 2013.

British Columbia

In the three-to-five year horizon, new home construction in British Columbia will trend higher following below-average starts this year and next. A slowing job market and ample housing supply in the existing home market will contribute to below-average housing starts in the near-term. At the same time, people moving to the province will generate demand for ownership and rental housing. Pent-up demand for homes will build as the population continues to grow. Resale market conditions will shift from buyers' to balanced as homebuyers draw down the inventory of existing homes for sale. As the economy and job market improve after 2010, more housing starts will get underway to meet demand. By 2013, housing starts will return to their long-term average and more closely match the rate of household formation.

Alberta

In the face of elevated new home inventories, weaker energy prices, and more moderate economic activity, the long-term housing outlook for Alberta is less promising. Total housing starts will be below demographic requirements through most of the forecast period, as builders adjust production in response to lower demand and a surplus of completed and unabsorbed units. In the next five years, the weakest performance for housing starts will be in 2009. With the global economy expected to strengthen beyond 2009, a subsequent rise in oil prices should start to get oil sands investment back on track. This environment will boost employment and attract an inflow of migrants. Providing these conditions are met and resale and new home

inventories dissipate, single-detached housing starts will be the first to rebound. High-rise multi-family construction, however, will not recover until a few years later. By the end of the five-year forecast period, total housing starts should be more in line with demographic requirements and average construction levels during the late 1990's.

Saskatchewan

Through the next five years, a strong resource sector and major capital investments should preserve Saskatchewan's status as a provincial economic growth leader. Nevertheless, total housing starts in Saskatchewan in the next five years will slip below the boom years of 2007 and 2008, yet surpass average construction levels in the preceding five years. In the near term, a weaker economic expansion, house price escalation from previous years, and an excess supply of resale units will hamper new home construction in the province. At the same time, builders will adjust production in response to heightened new home inventories, especially in the province's largest markets. Providing housing markets have worked through the increase in new home inventories and surplus of existing units, housing starts should gradually rise through the balance of the forecast period. Multi-family starts should capture an increased share of total new home construction, thanks to their relative price advantage to the single-detached market. Low vacancy rates will also encourage rental construction.

Manitoba

Over the next five years, housing starts in Manitoba will record one of

the most consistent performances across Canada. This reflects Manitoba's diversified economy as well as the steady inflow of migrants under the province's Provincial Nominee Program and its low unemployment rate relative to other provinces. Economic uncertainty, moderate demand, and heightened supply will push total housing starts lower in 2009. Moving forward, new home construction will begin to move toward levels consistent with population growth. From 2010 to 2013, housing starts in Manitoba are anticipated to climb, owing largely to an improved economic environment, lower new home inventories, and tightening resale market conditions.

Ontario

Ontario residential construction activity will face headwinds in the short term, but will advance beyond 2010. A number of factors will weigh on new home demand in the short run. Firstly, a slowing economy will dampen labour market conditions and this will temper housing demand for both new and existing homes. Secondly, more balanced housing conditions in the less expensive resale market will create further competition for the new home market. This will temper the demand and production of new single homes in Ontario. As economic growth in Ontario and the U.S. gains traction beyond 2012, expect stronger demand for housing. Higher immigration combined with the echo boom effect will support household formation and will add to demand further. Ontario new home construction will rise beyond the 2010 period.

Quebec

During the next five years, new home construction in Quebec will converge to levels more in line with household formation. A number of factors are at play in this movement. To begin with, Quebec's economy and labour market will grow moderately. Moreover, existing home markets will move from sellers' to more balanced conditions, thus reducing demand for new homes. Finally, the decrease, over several years, in the rate of growth of the population aged 75 years or older will take the pressure off the construction of retirement homes during the forecast horizon. As a result, housing starts in Quebec will moderate heading into 2013. New home building will thus decline but remain at relatively high levels when compared to recent history. It follows that not all segments of the housing market will be impacted in the same way: demand for new single detached homes is likely to follow economic conditions while that of new multi-family housing will be conditioned by the demographic factors mentioned above.

New Brunswick

The long term outlook for New Brunswick is positive. The return of sustained economic expansion will rely on capital investment to bolster economic growth.

Equally important will be the ongoing development of the energy sector in the Saint John area, and plans to twin Route 11 between Shediac and Miramichi. Plans for several other projects have also been announced. These activities will impact economic development in the medium-term (beyond 2010). Growth in residential construction will be focussed in the largest urban centres including Moncton, Saint John and Fredericton. Overall,

population growth will be modest due to some in-migration. The result will be a small increase in demand for housing over the forecast period.

Nova Scotia

Economic and employment growth are forecast to improve over the forecast period due to an expected rise in energy and energy-related investment activities. Prospects for rekindled growth in the offshore energy sector brightened with the announcement of the Deep Panuke project going ahead, which will add to growth in 2009 and 2010.

Consumer spending activity will moderate until 2010 thereby limiting its support to growth but a number of smaller projects in Halifax should contribute to additional economic activity as Halifax remains the main driver of growth for the province. At the same time without an improvement in demand south of the border the province's current and future growth prospects will remain muted. With this economic context, provincial housing market activity will start to improve in 2010 and beyond.

Prince Edward Island

The Island's economy will grow modestly over the 2009 to 2013 period as the recovery begins to take hold globally. The most important sectors supporting growth will continue to be tourism, agriculture, and the fishery. Although the province continues to place importance on the tourism sector, interest in renewable energy as well as information technology continues to show the province's desire to diversify the Island economy for the future.

The outlook for growth in the provincial population is also very positive as an aging population and

the provincial immigration program continue to support population growth. Urbanization will continue to be the key for growth in the housing markets of both Charlottetown and Summerside. Demand will also continue to shift from singles to multiples including condos, semi-detached and row housing over the forecast period. As a result total starts will rise moderately by 2013.

Newfoundland and Labrador

Population losses will continue to moderate over the forecast period as a result of improving economic conditions in Newfoundland versus elsewhere. Although the current demographic and population growth rates will limit the upside for housing demand, the development of projects including Hebron, the White Rose expansion, and Hibernia South and the possibility for a large hydro development at Lower Churchill Falls will help lift housing starts as of 2010.

The focus on energy and mining development will continue to be the source for future growth starting with the construction of the \$2.2 billion commercial-scale hydromet nickel processing plant at Voisey's Bay. At the same time, concerns over the fishing industry will continue to pose risk to rural economies.

Growing demand from seniors, tighter rental markets, a continuing shift towards medium density housing, and government assisted affordable housing initiatives should help stabilize multiple construction activity over the forecast period. Accordingly, total starts are expected to remain relatively flat over the 2011 to 2013 period.

Supplementary Table: Provincial Housing Starts Summary (units and annual percentage change)						
	2008	2009(F)	2010(F)	2011(F)	2012(F)	2013(F)
NFLD	3,261	2,675	2,975	2,900	2,850	2,900
%	23.1	-18.0	11.2	-2.5	-1.7	1.8
PEI	712	575	625	650	650	650
%	-5.1	-19.2	8.7	4.0	0.0	0.0
NS	3,982	3,100	3,425	3,600	3,550	3,600
%	-16.2	-22.1	10.5	5.1	-1.4	1.4
NB	4,274	3,475	3,650	3,750	3,700	3,750
%	0.8	-18.7	5.0	2.7	-1.3	1.4
QUE	47,901	40,000	41,350	40,000	38,000	37,000
%	-1.3	-16.5	3.4	-3.3	-5.0	-2.6
ONT	75,076	51,325	52,300	58,000	55,000	63,000
%	10.2	-31.6	1.9	10.9	-5.2	14.5
MAN	5,537	3,950	4,250	4,750	4,800	4,700
%	-3.5	-28.7	7.6	11.8	1.1	-2.1
SASK	6,828	3,400	3,850	4,200	4,400	4,500
%	13.7	-50.2	13.2	9.1	4.8	2.3
ALTA	29,164	13,700	16,200	18,500	21,500	25,000
%	-39.7	-53.0	18.2	14.2	16.2	16.3
BC	34,321	19,725	21,700	26,300	29,000	31,700
%	-12.4	-42.5	10.0	21.2	10.3	9.3
CAN*	211,056	141,900	150,300	162,650	163,450	176,800
%	-7.6	-32.8	5.9	8.2	0.5	8.2

SOURCE: CMHC.

(F) Forecast.

* Totals may not add due to rounding.

Economic uncertainty is reflected by the current range of forecasts, which varies from 125,000-160,000 units for 2009, 130,000-180,000 units for 2010, 143,000-187,000 units for 2011, 144,000-188,000 units for 2012, and 157,000-198,000 units for 2013.

British Columbia

Overview

A slowing job market and ample supply in the existing home market will contribute to fewer housing starts this year. The housing outlook improves in 2010 with advances in existing home sales and prices, as well as housing starts.

The provincial unemployment rate will move higher, but is forecast to remain below the national unemployment rate. Fewer people working, with a shift from full-time to part-time jobs, will push up the unemployment rate and hold back demand for homeownership. Weak demand for new housing will reduce the number of people employed in construction. However, accelerated delivery of infrastructure projects will add some support to construction employment. Some service-producing industries, including health and social services, will add jobs to meet the needs of a growing and aging population.

Strong international in-migration will keep the province's population

growing, but population growth will moderate. Fewer net non-permanent residents (which include temporary workers and students) will reduce international migration slightly. Relatively favourable labour market conditions will keep the number of people relocating to British Columbia close to last year's level and help support housing demand.

Resale markets will continue to favour buyers in 2009 before returning to balanced supply and demand conditions in 2010. Existing home listings are trending lower but remain at elevated levels providing ample choice for home buyers who will benefit from lower prices than in recent years.

Existing home sales and housing starts will pick up as economic and labour market conditions improve in 2010. However, housing starts will remain below their long-term average level. Foundations will be poured for 19,725 homes in 2009 and 21,700 homes in 2010.

With housing starts below the number of households formed each year, pent-up demand for rental and ownership housing may be generated this year and next.

In Detail

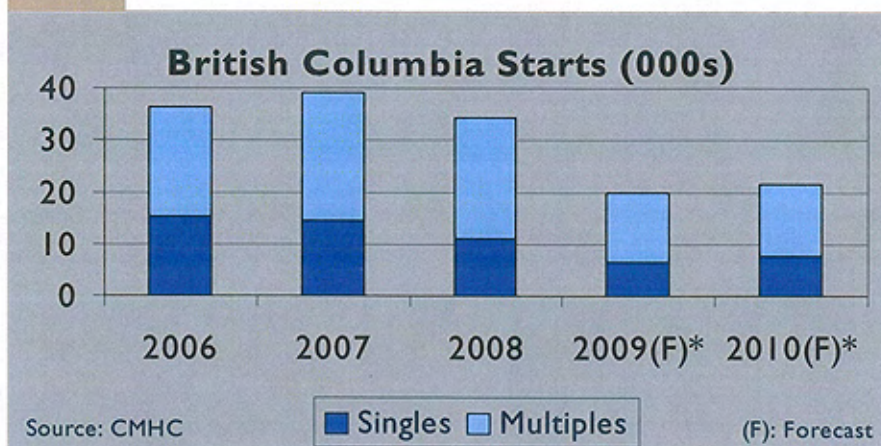
Single Starts: Fewer single-detached homes will be started as builders respond to reduced housing demand and ample housing supply. About 6,425 single-detached starts are expected this year.

Multiple Starts: Multiple-unit starts will drop to 13,300 units in 2009, as builders focus on smaller projects. Rising inventories of completed and unoccupied units will delay or hold back construction of larger multiple-unit developments.

Resales: Existing home sales through the Multiple Listings Service (MLS®) will move lower this year. The number of resale transactions will bounce back close to 2008 levels in 2010.

Prices: The sales-to-new listings ratio, a leading indicator of home prices, points to lower home prices in 2009. The average MLS® price will decline to \$403,700 this year, narrowing the price gap with the rest of Canada. In 2010, the average price for an existing home will post a small increase.

Figure 1



*The point estimates for projected total housing starts are 19,725 for 2009 and 21,700 for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 17,000-22,600 units for 2009 and 19,500-24,400 for 2010.

Alberta

Overview

The province, which experienced several years of very strong energy-driven economic activity, is now facing different economic conditions. With lower energy prices, tighter credit conditions, and heightened capital costs, large oil producers have deferred major oil sands and upgrader projects. Personal consumption will also moderate due to economic uncertainty and rising unemployment. In the face of weaker global oil demand and lower prices, exports will also moderate. The negative trade balance will not be severe, however, as weaker consumption and the purchase of material and equipment to support oil sands development will slow imports. Provincial government spending will provide some offsetting economic stimulus in 2009 in the form of infrastructure, health care, and education spending.

A quick turnaround in the economy is not expected in 2010 unless commodity prices rebound sufficiently to revive capital investment. A silver lining to the outlook will be a decline in construction costs, which will assist producers once the major oil sands and upgrader projects regain momentum. Some rise in oil prices

will coincide with a global economic recovery and oil supply constraints brought on by lower investment. However, the reversal of oil project deferrals and cancellations will likely not occur until beyond the forecast period.

Weaker capital investment in the energy sector and lower housing starts will have implications for the province's job market. In 2009, average employment will fall for the first time in 17 years. Such conditions will inhibit interprovincial migration to Alberta until employment prospects improve. The migration of non-permanent residents will also slow in 2009 as most of the province's labour requirements will be met locally. Expect migration to improve in lockstep with the modest economic and employment recovery in 2010.

In Detail

Single Starts: Provincial home builders are adjusting to the rise in completed and unabsorbed units and weaker demand by starting fewer housing units. With the decline in construction and generous builder incentives, new

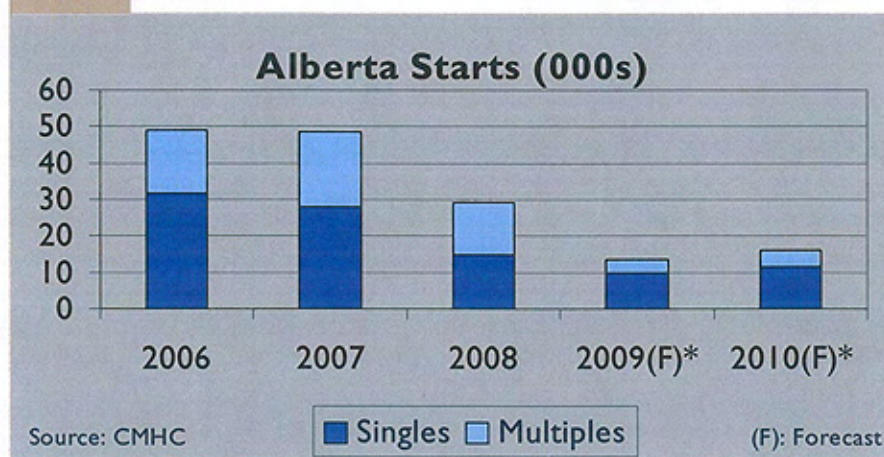
home inventories should move past their peak later this year. In 2010, declining inventory, combined with recent price declines, will present an opportunity for higher starts.

Multiple Starts: Rising inventories combined with the cancellation of condominium projects will weigh heavily on multiple starts in 2009. Rather than initiate new projects, much of the activity will focus on completing units that were started in the last few years. The decline should help prevent a buildup of completed and unabsorbed units. This should lead to a modest uptick in construction toward the end of the forecast period.

Resales: With the economic uncertainty and weakening job market, Albertans have become cautious about purchasing a home. A more supportive economic environment combined with improved affordability through price reductions and lower mortgage rates should spur a modest recovery in home sales during the latter months of 2009 and into 2010.

Prices: Heightened inventory levels and softer demand will continue to put downward pressure on prices in 2009. The resulting gains in affordability will provide an opportunity for prospective buyers as we move through the forecast period, leading to stronger demand and lower active listings. Provided the lift to demand sufficiently draws down listings, price growth will be restored in 2010.

Figure 2



*The point estimate for projected total housing starts is 13,000 for 2009 and 16,200 for 2010. Economic uncertainty is reflected by the central range of forecasts which varies from 12,350-15,300 units for 2009 and 14,600-19,300 for 2010.

Saskatchewan

Overview

For the second year in succession, Saskatchewan is poised to lead economic growth among provinces. Nevertheless, expect fewer housing starts and MLS sales in 2009 with a modest improvement next year.

Saskatchewan's robust potash sector, capital investment, and heightened infrastructure spending will provide plenty of momentum for economic growth. Elevated potash prices will support two major mine expansions, adding to the \$1.9 billion investment in Regina's CCRL's (Consumers' Co-operative Refineries Limited) refinery expansion. Government expenditures will also be an important source of growth. The provincial government has doubled its infrastructure commitments to \$1.5 billion over two years.

Other factors will restrain the economic expansion in the near term. These include a weaker pace of personal consumption and reduced demand and commodity prices for most exports. Following two years of double-digit increases, growth in retail sales will slow. Compared to

other provinces, however, the pullback will be mild thanks in part to recent income gains and various tax cuts. Non-residential capital spending will also moderate following the surge in 2008, owing to weaker oil and gas drilling and the postponement of uranium mine developments. An expected global recovery in 2010 should provide a lift to commodity prices and boost demand for Saskatchewan's exports next year.

After two per cent job growth in 2007 and 2008, employers will be more conservative expanding payrolls this year. With stronger economic conditions in 2010, employment prospects will improve.

With slower job growth in 2009, the unemployment rate will increase from last year's record low. However, given Saskatchewan's low unemployment rate relative to other locations, the province should continue to attain strong levels of net migration. Job opportunities continue to be touted, which should attract migrants from both international and provincial sources.

In Detail

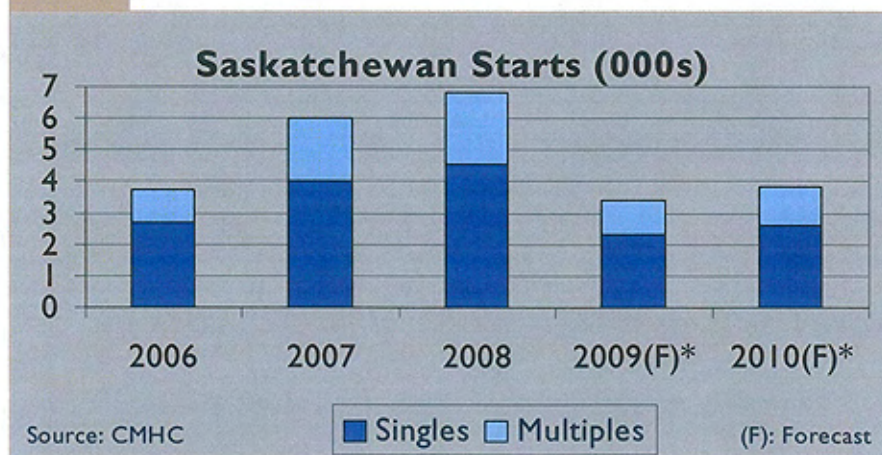
Single Starts: Builders have been adjusting production downward in most of Saskatchewan's major centres, due largely to heightened inventories and the current economic environment. The weaker construction in 2009 will ensure that inventories are minimized. This, combined with a strengthening economy, will lead to a modest rise in single-detached starts in 2010.

Multiple Starts: To reduce the likelihood of further inventory increases, builders will adjust production downward throughout 2009. Saskatoon will face the strongest decline, following outstanding performances in 2007 and 2008. In 2010, there will be room for an uptick in multiple starts, especially in row housing, as these units have proven to be popular with first-time buyers and investors.

Resales: The slowing pace of economic growth and weaker job creation will contribute to lower resale activity. Resales will improve in 2010 as a stronger economy and improved affordability through moderating house prices will bring homebuyers back into the existing housing market.

Prices: Following gains in the preceding two years, the average price will post a decline in 2009 and increase slightly in 2010. With active listings elevated compared to historic levels, sellers are experiencing strong competition for fewer buyers. While this is resulting in price reductions, the sale of newer and higher priced units will offer some support to the average price and slow the decline. As 2010 approaches, the supply of listings should be more aligned with demand allowing price growth to resume.

Figure 3



*The point estimate for provincial total housing starts is 3,400 for 2009 and 3,250 for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 2,590-3,805 units for 2009 and 3,475-4,300 for 2010.

Manitoba

Overview

Economic activity in Manitoba will weaken in 2009, as a slowdown in personal consumption and lower commodity prices outweigh strength in other sectors. Nevertheless, the province will post one of the best economic performances in the country. Major capital projects continue and will serve to offset weakness in retail spending. More than 20 capital projects are currently, or soon to be, under construction in the province.

Over the forecast period, the export sector will not be as strong a contributor to economic growth as in recent years. Production gains from new nickel and gold mines will be offset by the closure of a nickel mine in Northern Manitoba. Also, while the price of most agricultural products remain elevated, the size of the harvest faces a greater degree of uncertainty than usual due to spring flooding over a large part of Southern Manitoba. On a more positive note, sales of hydro electric power will remain high as an elevated water table and power purchase agreements with out of province end-users ensure high volumes and consistent prices.

Due to the current economic environment, Manitoba will experience a modest decline in employment. Jobs that are being created are predominantly in full-time positions and are occurring at the expense of part-time positions.

Net migration will continue to benefit from Manitoba's Provincial Nominee program. While a strong labour market relative to the rest of the country will stem the loss of interprovincial migrants, the majority of gains in migration will continue to come from international sources. Weaker economic and job growth combined with slightly lower migration and elevated new home inventories will cause provincial housing starts to temporarily decline below the rate of new household formation during 2009.

In Detail

Single Starts: Single-detached starts will decline to 2,700 units in 2009. Activity will be restrained by the current economic environment as well as the recent rise in new and existing home inventories. The reduced number of housing starts in 2009 should alleviate the surplus of complete and unabsorbed units as we head into 2010. This, combined

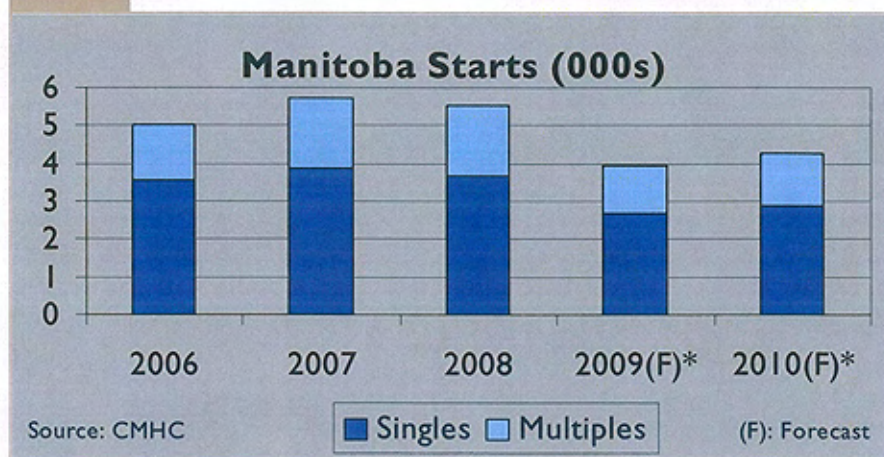
with stronger demand and low mortgage rates, should result in modestly higher production next year.

Multiple Starts: Following an impressive performance in the last few years, multi-family starts will moderate in 2009 due to concerns over rising inventories. The share of starts occurring outside of Winnipeg will remain historically high as elevated levels of migration to Manitoba's smaller centres will create demand for multi-family accommodation. With reduced levels of construction in 2009, inventory levels should begin to moderate toward the end of the forecast period. This will pave the way for a modest improvement in 2010.

Resales: Sales of existing homes will decline in 2009 before posting a modest rebound in 2010. Improving economic conditions, a growing population, and relatively low prices and financing costs should contribute to a recovery in the latter part of 2009 and into 2010.

Prices: After several years of strong gains, the average resale price in Manitoba is expected to decline slightly in 2009 due to lower sales and elevated listings. Heightened demand for homes at the lower end of the price spectrum will also dampen price gains in the province. Providing the rise in demand sufficiently draws down inventories in 2010, average price growth will return next year.

Figure 4



*This point estimate for provincial total housing starts is 3,550 for 2009 and 4,250 for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 3,550-4,400 units for 2009 and 3,825-4,750 for 2010.

Ontario

Overview

After edging higher in 2008, Ontario new home construction will slow reaching 51,325 units in 2009. Housing starts have been running above demographic trends in recent years and this trend will be reversed in the next few years. While an improving economy will help stabilize starts in 2010, rising inventories and competitive headwinds from the resale market will temper increases in residential construction investment. Cautious consumer spending in the face of a sluggish Ontario labour market are other factors that will temper Ontario's housing recovery.

Given its strong ties to the U.S. economy, Ontario is experiencing a downturn in economic activity, but will likely see some gradual recovery next year. Weakness in the export sector has spilled into Ontario's domestic economy with service sector output and employment declining in recent quarters for the first time since the early 1990s.

Prospects will improve once trade with the U.S. picks up as a result of a

lower Canadian dollar and stronger U.S. growth.

The net outflow of Ontarians headed west will gradually subside. Ontario's share of international migration may rebound relative to the rest of Canada and drive Ontario's population growth higher.

In Detail

Single Starts: Single starts will decrease to 17,850 this year before stabilizing at 18,000 units in 2010. Ontario's single detached housing segment will be most sensitive to rising inventories, a rising jobless rate and lower consumer spending on big ticket items. These factors will have a more adverse effect on the construction of more expensive housing.

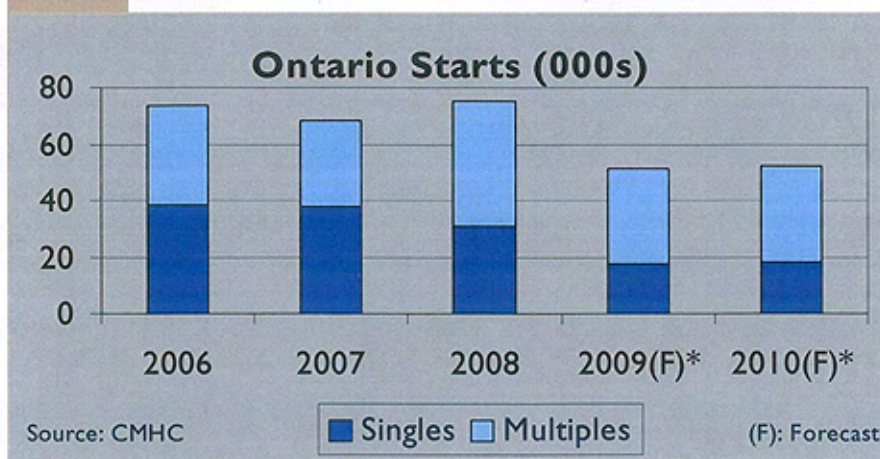
Multiple Starts: Multi-family home starts will slow but at a more modest pace relative to single detached housing in 2009 reaching 33,475 unit starts. Demand for less expensive housing, led by ownership and rental apartments, will hold up better and will push multi-family home starts higher in 2010. Economic uncertainty suggests first

time buyers will consider less expensive homes. Lower rental apartment vacancy rates will keep the construction of apartment units high as will efforts to use scarce residential land more efficiently.

Resales: Ontario existing home sales will decline reaching 144,200 units in 2009. A gradual recovery in Ontario labour markets combined with lower carrying costs will help boost existing home sales to 150,100 units in 2010.

Prices: More accommodating conditions for buyers suggests Ontario existing home prices will decline by 5.0 per cent and 3.6 per cent in 2009 and 2010 respectively. A slowing job market will dampen income growth and demand for housing. The continued shift to more inexpensive housing will also dampen average home prices across the province.

Figure 5



*The point estimate for provincial new housing starts is 51,325 for 2009 and 52,340 for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 42,500-53,000 units for 2009 and 45,500-60,000 for 2010.

Quebec

Overview

A weaker economic environment, combined with increased supply of homes in certain market segments, has set the stage for declining housing starts in Quebec this year. Despite favorable buying conditions, housing starts will move down to the 40,000 level in 2009, while sales of existing homes decrease to about 70,000 units. As the economy begins to recover next year, demand is expected to follow suit.

The province's economy, whose growth went from 2.6 per cent in 2007 to 1.0 per cent last year, started to show signs of contraction in the last quarter of 2008. It is expected that the currently high level of economic uncertainty and the declining labour market will continue to hold back household spending in the near term. This, in turn, will reduce private investment. Moreover, the outlook for exports continues to worsen as external (foreign and Canadian) demand weakens.

However, governments have responded through increased

spending on infrastructure projects and by enacting fiscal and monetary stimulus plans. Accordingly, the Quebec economy will recede by 2 per cent in 2009, while job growth registers a similar result, a decline of 1.9 per cent. In 2010, the economy will grow by 1.4 per cent while the labour market begins to recover (0.1 per cent).

Meanwhile, demographic patterns will fuel housing markets in Quebec. Sustained and increasing net migration will stimulate demand for rental housing while population aging will draw retirees into apartment living. These trends will continue, however their rate of increase is expected to slow in the short term.

In Detail

Single Starts: Starts in this segment will be especially affected by the economic and financial environment. Homebuyers will increasingly turn to the less expensive resale market, where supply is more abundant. Semi-detached and row housing are also likely to be viewed as more affordable substitutes. Approximately 16,600 single starts are expected in

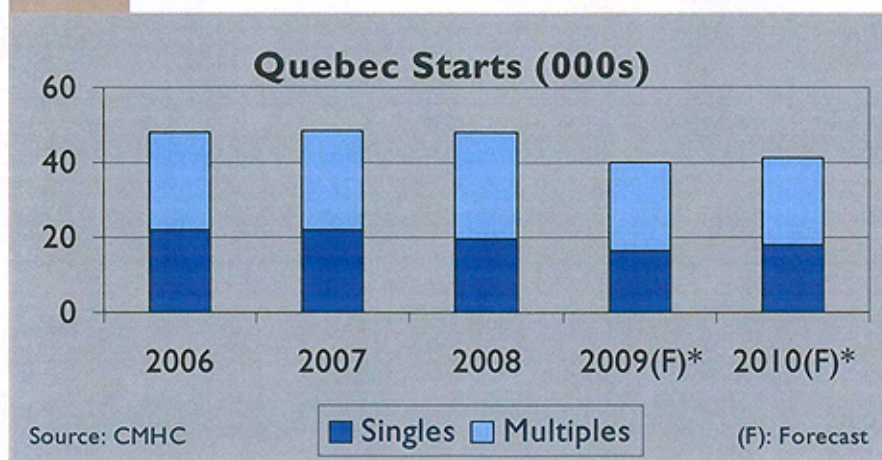
2009 and close to 18,000 in 2010.

Multiple Starts: Quebec markets have posted several years of vigorous construction of retirement homes and condominiums, bringing multi-family starts to historically high levels. Given the fact the growth rate of the population aged 75 and over will temporarily slow and given current elevated supply, starts in this category will drop to 23,400 units in 2009, increasing marginally in 2010.

Resales: Sales of existing homes will decline in 2009, but will remain at a relatively high level. Demand for condominiums (town houses or apartments) will still be an important component, but will nevertheless decrease. The Multiple Listing Service (MLS) will record approximately 70,000 sales in 2009. Being the first market to react to the economic recovery, resales will amount to 77,000 in 2010.

Prices: Lower sales and rising inventories will continue to take pressure off prices. Cooling demand should rule out price growth in 2009. As a result, the MLS average resale price will fall to about \$207,000 in 2009. Even though price growth resumes in the latter part of 2010, no significant increase is expected for the year as a whole.

Figure 6



* The point estimate for projected total housing starts is 40,000 for 2009 and 41,300 for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 37,000-42,000 units for 2009 and 38,000-45,000 for 2010.

New Brunswick

Overview

The economic downturn will take hold in 2009 as a result of soft commodity prices, and a fall in capital spending as projects are completed or near completion.

Although the current value of the Canadian dollar and reduced energy prices should help New Brunswick exporters in 2009, a continued slump in global demand for commodities will hamper economic growth until a global recovery begins to take hold in 2010.

Due to heightened economic uncertainty, reduced non-residential construction activity in New Brunswick is expected in 2009-2010.

Several current projects, including the LNG terminal project, the refurbishment of the Point Lepreau generating station in the Saint John area, as well as the expansion of the Potash Corp. facility in Sussex will slow as peak levels of activity have been reached.

This will be partially offset by increased spending in 2009-2010 on

infrastructure projects at both the provincial and municipal level.

Employment and economic growth are expected to be weak in 2009, followed by a marginal recovery in 2010.

Despite the forecast for modest economic growth in New Brunswick for the coming year, the future bodes well for the province. Several new, large scale capital projects have been recently announced. These include the twinning of route eleven between Shediac and Miramichi, at an estimate cost of approximately \$940 million. Furthermore, the viability of a combination natural gas and wind power electrical generating project, with a price tag exceeding one billion dollars, is being studied for the Saint John area. Although the start of construction for projects such as these could be years away, the preliminary work required as a lead up to construction would undoubtedly positively affect the provincial economy as they move through the planning stage.

In Detail

Single Starts: In New Brunswick, strong employment and positive

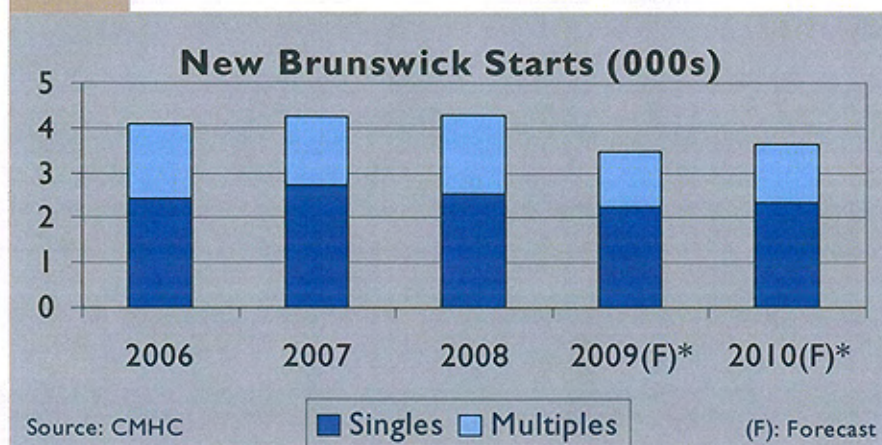
net-migration in large urban centres bolstered housing demand in 2008. Nevertheless, slowing activity in the latter part of 2008 is forecast to continue into 2009. Expect a decline in single starts to 2,250 units in 2009, followed by a subsequent increase to 2,350 units in 2010.

Multiple Starts: In recent years, fewer apartment units have been built in New Brunswick as developers shifted their focus to meet consumer demand for semi-detached and row units. Although the vacancy rate dropped in the province's large urban centres, apartment starts are expected to be soft in 2009. Furthermore, semi-detached starts are expected to decline as the number of new and unabsorbed units has risen, particularly in Moncton. As a result, expect a moderate decline in multiple starts to 1,225 units in 2009, followed by a mild rebound in 2010 to 1,300 units.

Resales: Favourable market conditions, which helped offset the impact of economic uncertainty and bolstered the resale market in 2008, persist in 2009 as low mortgage rates allow many potential homeowners, particularly first time home buyers to enter the market. Nevertheless, with increasing economic uncertainty, expect MLS® sales to decline to 6,500 in 2009 with a slight increase to 6,750 in 2010.

Prices: Although sales activity is expected to slow in 2009, prices will continue to rise, albeit at a more moderate rate. Expect the average sale price to rise to \$146,500 in 2009 and \$149,000 in 2010.

Figure 7



*The point estimate for provincial total housing starts is 3,475 for 2009 and 3,650 for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 2,900-3,700 units for 2009 and 2,750-4,000 for 2010.

Nova Scotia

Overview

Positive economic growth in 2009 will be difficult to achieve for the Nova Scotia economy although there are signs that 2009 may be better than previously forecast as a result of stronger employment growth in the first quarter of 2009.

The economy has been performing better than some other Atlantic Canada provinces so far in 2009 and the recent declines in energy prices and declines in the Canadian dollar should be a benefit for growth. At the same time without an improvement in demand south of the border the province's current and future growth prospects will be muted.

Consumer growth in 2009 will be limited as consumers reduce debt and, as a result, spending. However, low interest rates will be more supportive of a rebound in consumer spending in 2010.

Economic growth should begin to improve towards the end of 2009 as energy related investments continue to move from the planning to the construction phase.

The outlook will be supported by the Deep Panuke project, which will add to growth in 2009 and 2010.

Given that the gap in economic growth between the western provinces and Nova Scotia will narrow, net migration will remain positive and supportive of housing demand in Nova Scotia.

In Detail

Single Starts: Following a weak first quarter of single starts activity, single-detached construction is expected to remain subdued throughout 2009 before a slight recovery is made in 2010. A decline in single starts to 1,900 units is forecast for 2009 before improving to 2,000 starts in 2010.

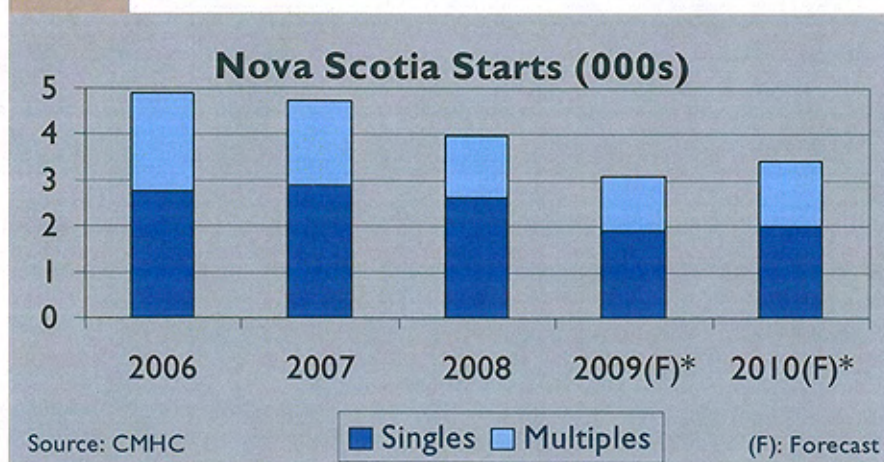
Multiple Starts: Weak economic and employment growth over the forecast period will lead to a decline in multiples starts in 2009. Appetite for development has moderated in the current economic environment, however, demand for multiples remains strong in Nova Scotia with a large number of projects remaining in the queue. Multiples starts are expected to increase in 2010 in

response to stronger demand as the economy begins to recover.

Resales: MLS® sales in Nova Scotia were down 22.4 per cent in the first quarter of 2009 and will improve somewhat to finish the year 17 per cent lower than 2008, with 9,000 sales. Upside potential in the forecast exists due to the fact that interest rates are at historic lows and buyer market conditions exist throughout most of the province. As economic growth begins to improve towards the end of 2009 and into 2010, existing home sales are expected to increase by just over five per cent in 2010 to approximately 9,500.

Prices: Weaker sales will result in more subdued price growth compared to previous years. The average price is expected to remain basically unchanged in 2009 at \$190,000 increasing to approximately \$195,000 in 2010.

Figure 8



*The point estimate for provincial total housing starts is 3,100 for 2009 and 3,425 for 2010. Economic uncertainty is reflected by the overrun range of forecasts which varies from 2,750-4,100 units for 2009 and 3,000-4,400 for 2010.

Prince Edward Island

Overview

The slowdown in economic growth in 2009 will be followed by a small rebound in 2010 as the global recovery takes hold. Economic growth is forecast to decrease by 1.8 per cent in 2009, but recover with 0.8 per cent growth in 2010.

Although consumer spending in Prince Edward Island remained strong in 2008, spending is expected to slow in 2009.

Recent problems in the agriculture sector due to weather along with the prospects for weaker demand for the other key sectors including manufacturing and tourism will dampen economic growth in 2009-2010.

Gains in employment in 2009-2010 will continue to be limited as a result of global concerns and weaker commodity prices. Employment in 2009 will decline by 1.4 per cent, rebounding with positive growth of 0.5 per cent in 2010.

There is upside risk to growth depending on how the global recovery takes hold in 2010 and the

extent of fiscal spending by the provincial government.

The Government of Prince Edward Island has announced their support to economic growth over the next five years with the potential of \$510 million in capital investment over the next five years. The amount announced for the 2009-2010 fiscal period is \$129.6 million. The two key components include additional health care funding and spending for highways and bridges.

In Detail

Single Starts: Single detached construction is expected to slow in 2009 before posting a modest increase in 2010. The two main factors contributing to the aforementioned decline are slowing economic growth and the increasing cost of new homes. The current forecast calls for 425 units in 2009, and for an additional 450 units in 2010.

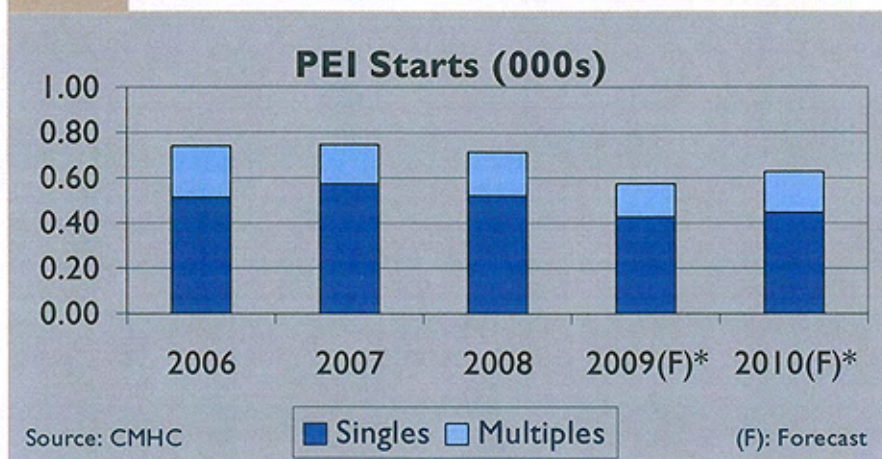
Multiple Starts: Increased demand for multiple units projects targeted towards the homeownership market will keep multiple starts stable over

the next two years. This shift in tenure of multiple units will be driven in part by the rising cost of new homes and by empty-nesters looking to downsize their households. As a result expect to see 150 to 175 multiple units started in each of the next two years.

Resales: In 2007, the resale market in PEI posted a record high level of MLS® sales, up by almost 20 per cent over the previous record. As was expected, sales returned to a more sustainable level in 2008. This trend of declining sales is expected to continue in 2009, before sales post a modest increase in 2010. As such, it is expected that MLS® sales will moderate to 1,300 units in 2009 and rise marginally to 1,325 units in 2010.

Prices: During the past nine years the average prices increased at an average rate of 7 per cent annually. This trend is not expected to continue as inventories build up over the forecast period. Despite the slowing pace it is still expected that the province as a whole will post positive average growth over the next two years. The average

Figure 9



* This table estimates for provincial real housing starts to 375 for 2009 and 425 for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 525-625 units for 2009 and 575-675 for 2010.

Newfoundland and Labrador

Overview

Although the Hebron project will continue to support the province's future growth prospects, 2009 will be impacted by the global slowdown. The project's contributions in 2009 will be offset by a slowdown in mining and other resource based activity, including the fishery.

Weaker offshore oil production will dampen growth in 2009 and 2010, although an eventual increase in royalties received by the province from Hibernia will contribute to future growth. Infrastructure spending in 2009-2010 by the province will offset some of the expected decline in private sector spending. However, there are high expectations beyond the forecast period, as a number of resource related projects begin to add to economic growth in 2011.

Higher commodity prices previously added to increased mineral exploration activity in the interior region of Newfoundland, as well as Labrador. However, the recent correction in prices will contribute to the slowdown in growth in 2009.

A global resource recovery will add to economic growth in 2010.

The fishery has not been as challenged by a high Canadian dollar and high fuel costs, due to recent declines in both factors. However, it is still being affected by lower global demand and the resulting effects of lower prices.

The consumer, which was a strong supporter of growth in 2008 through spending on retail, auto and housing activity, is expected to be more cautious in 2009. Although, the current interest rate environment may help in the rebound in activity expected in 2010. As a result, GDP growth is forecast to decline 5.0 per cent in 2009, before rebounding 1.5 per cent in 2010.

In Detail

Single Starts: The current economic uncertainty will result in a slowdown in 2009 with some improvement expected in 2010, especially for St. John's. Tepid job and income growth will be offset by low mortgage rates and continued in-migration, providing support to the single-detached housing market. A total of

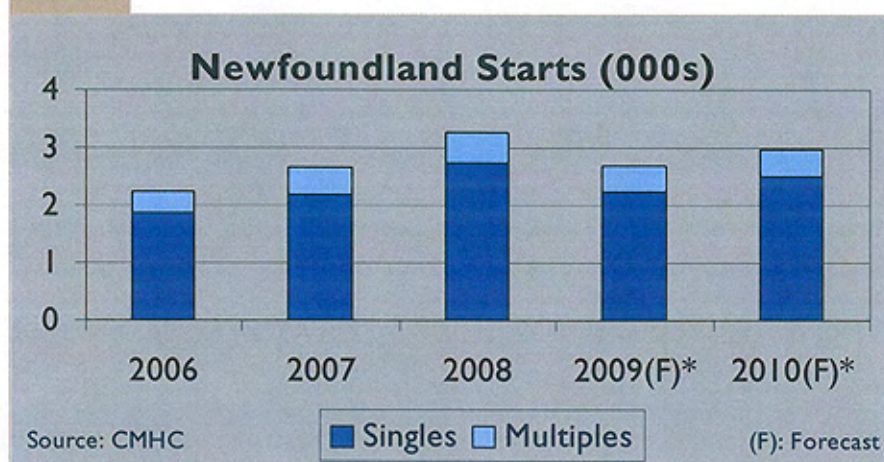
2,250 starts are expected in 2009 and 2,500 starts are forecast for 2010.

Multiple Starts: Multiple unit construction will reach 425 units in 2009 and 475 in 2010. With higher construction costs and longer build times, the number of single-detached homes with basement apartments will continue to slow, as buyers opt for less expensive single unit homes. Smaller households and an aging population should continue to stimulate the condo market, with condo starts forecast to increase in the years ahead. Income growth paired with low mortgage rates will drive first-time buyer demand for new semi-detached units.

Resales: After record buying activity in recent years, demand will moderate but remain historically high in 2009-2010. The forecast includes a decline to 4,000 provincial MLS® sales in 2009, with an increase to 4,200 in 2010.

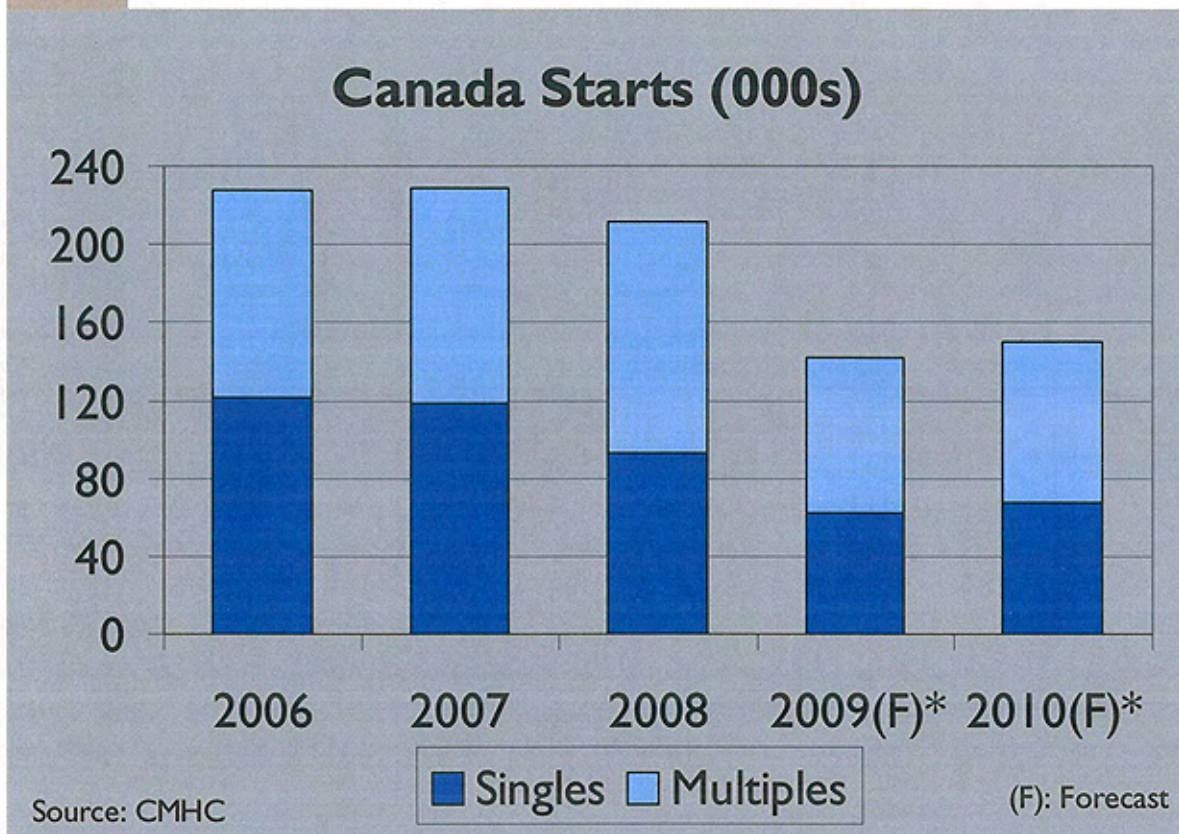
Prices: The expected softening in demand for housing, paired with a higher inventory of homes for sale throughout the province, will see growth in the average MLS® house price ease somewhat in 2009-2010. Coming off the heels of a 20 per cent appreciation in 2008, prices are expected to rise 7.9 per cent to \$192,500 in 2009 and 2.9 per cent in 2010 to \$198,000.

Figure 10



*This point estimate for provincial total housing starts is 2,675 for 2009 and 2,975 for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 2,450-3,200 units for 2009 and 2,100-3,000 for 2010.

Figure 11



*The point estimate for the forecast of national total housing starts is 141,900 units for 2009 and 150,300 units for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 125,000-160,000 units for 2009 and 130,000-180,000 units for 2010.

Table 1: Total Housing Starts
(units and annual percentage change)

	2004	2005	2006	2007	2008	2009(F)	2010(F)
NFLD	2,870	2,498	2,234	2,649	3,261	2,675	2,975
%	6.6	-13.0	-10.6	18.6	23.1	-18.0	11.2
PEI	919	862	738	750	712	575	625
%	12.9	-6.2	-14.4	1.6	-5.1	-19.2	8.7
NS	4,717	4,775	4,896	4,750	3,982	3,100	3,425
%	-7.4	1.2	2.5	-3.0	-16.2	-22.1	10.5
NB	3,947	3,959	4,085	4,242	4,274	3,475	3,650
%	-12.1	0.3	3.2	3.8	0.8	-18.7	5.0
QUE	58,448	50,910	47,877	48,553	47,901	40,000	41,350
%	16.2	-12.9	-6.0	1.4	-1.3	-16.5	3.4
ONT	85,114	78,795	73,417	68,123	75,076	51,325	52,300
%	-0.1	-7.4	-6.8	-7.2	10.2	-31.6	1.9
MAN	4,440	4,731	5,028	5,738	5,537	3,950	4,250
%	5.6	6.6	6.3	14.1	-3.5	-28.7	7.6
SASK	3,781	3,437	3,715	6,007	6,828	3,400	3,850
%	14.1	-9.1	8.1	61.7	13.7	-50.2	13.2
ALTA	36,270	40,847	48,962	48,336	29,164	13,700	16,200
%	0.3	12.6	19.9	-1.3	-39.7	-53.0	18.2
BC	32,925	34,667	36,443	39,195	34,321	19,725	21,700
%	25.8	5.3	5.1	7.6	-12.4	-42.5	10.0
CAN*	233,431	225,481	227,395	228,343	211,056	141,900	150,300
%	6.9	-3.4	0.8	0.4	-7.6	-32.8	5.9

Source: CMHC.

(F) Forecast.

* Totals may not add due to rounding. The point estimate for the forecast of national total housing starts is 141,900 units for 2009 and 150,300 units for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 125,000-160,000 units for 2009 and 130,000-180,000 units for 2010.

Table 2: Single-Detached Starts

(units and annual percentage change)

	2004	2005	2006	2007	2008	2009(F)	2010(F)
NFLD	2,229	2,005	1,864	2,184	2,725	2,250	2,500
%	-0.5	-10.0	-7.0	17.2	24.8	-17.4	11.1
PEI	682	634	512	573	521	425	450
%	11.3	-7.0	-19.2	11.9	-9.1	-18.4	5.9
NS	3,270	3,010	2,757	2,887	2,636	1,900	2,000
%	10.2	-8.0	-8.4	4.7	-8.7	-27.9	5.3
NB	2,970	2,665	2,445	2,733	2,519	2,250	2,350
%	-5.4	-10.3	-8.3	11.8	-7.8	-10.7	4.4
QUE	28,871	23,930	21,917	22,177	19,778	16,600	17,850
%	6.0	-17.1	-8.4	1.2	-10.8	-16.1	7.5
ONT	48,929	41,682	38,309	37,910	31,108	17,850	18,000
%	2.8	-14.8	-8.1	-1.0	-17.9	-42.6	0.8
MAN	3,484	3,709	3,552	3,857	3,690	2,700	2,900
%	10.1	6.5	-4.2	8.6	-4.3	-26.8	7.4
SASK	2,193	2,425	2,689	4,017	4,518	2,300	2,600
%	4.6	10.6	10.9	49.4	12.5	-49.1	13.0
ALTA	22,487	26,684	31,835	28,105	14,716	9,700	11,500
%	2.6	18.7	19.3	-11.7	-47.6	-34.1	18.6
BC	14,056	13,719	15,433	14,474	10,991	6,425	7,800
%	14.7	-2.4	12.5	-6.2	-24.1	-41.5	21.4
CAN*	129,171	120,463	121,313	118,917	93,202	62,400	67,900
%	4.8	-6.7	0.7	-2.0	-21.6	-33.0	8.8

Source: CMHC.

(F) Forecast.

* Totals may not add due to rounding. The point estimate for the forecast of national single-detached starts is 62,400 for 2009 and 67,900 for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 53,800-71,000 units for 2009 and from 60,500-81,200 units for 2010.

Table 3: Multiple Starts
(units and annual percentage change)

	2004	2005	2006	2007	2008	2009(F)	2010(F)
NFLD	641	493	370	465	536	425	475
%	41.8	-23.1	-24.9	25.7	15.3	-20.7	11.8
PEI	237	228	226	177	191	150	175
%	17.9	-3.8	-0.9	-21.7	7.9	-21.5	16.7
NS	1,447	1,765	2,139	1,863	1,346	1,200	1,425
%	-32.0	22.0	21.2	-12.9	-27.8	-10.8	18.8
NB	977	1,294	1,640	1,509	1,755	1,225	1,300
%	-27.6	32.4	26.7	-8.0	16.3	-30.2	6.1
QUE	29,577	26,980	25,960	26,376	28,123	23,400	23,500
%	28.2	-8.8	-3.8	1.6	6.6	-16.8	0.4
ONT	36,185	37,113	35,108	30,213	43,968	33,475	34,300
%	-3.7	2.6	-5.4	-13.9	45.5	-23.9	2.5
MAN	956	1,022	1,476	1,881	1,847	1,250	1,350
%	-8.2	6.9	44.4	27.4	-1.8	-32.3	8.0
SASK	1,588	1,012	1,026	1,990	2,310	1,100	1,250
%	30.4	-36.3	1.4	94.0	16.1	-52.4	13.6
ALTA	13,783	14,163	17,127	20,231	14,448	4,000	4,700
%	-3.3	2.8	20.9	18.1	-28.6	-72.3	17.5
BC	18,869	20,948	21,010	24,721	23,330	13,300	13,900
%	35.5	11.0	0.3	17.7	-5.6	-43.0	4.5
CAN*	104,260	105,018	106,082	109,426	117,854	79,500	82,400
%	9.5	0.7	1.0	3.2	7.7	-32.5	3.6

Source: CMHC.

(F) Forecast.

* Totals may not add due to rounding. The point estimate for the forecast of national multiple starts is 79,500 for 2009 and 82,400 for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 71,200-89,000 units for 2009 and from 69,500-98,800 units for 2010.

Table 4: Housing Starts by Type (Units)

		2004	2005	2006	2007	2008	2009(F)	2010(F)
NF	Semi-Detached	264	151	122	133	169	100	100
	Row	51	31	39	72	108	75	75
	Apartment	326	311	209	260	259	250	300
	Total	641	493	370	465	536	425	475
PEI	Semi-Detached	76	111	62	100	59	75	50
	Row	80	75	13	23	54	25	25
	Apartment	81	42	151	54	78	50	100
	Total	237	228	226	177	191	150	175
NS	Semi-Detached	266	301	353	333	328	250	250
	Row	186	265	255	221	219	250	275
	Apartment	995	1,199	1,531	1,309	799	700	900
	Total	1,447	1,765	2,139	1,863	1,346	1,200	1,425
NB	Semi-Detached	293	391	482	530	584	500	520
	Row	256	203	275	195	235	150	130
	Apartment	428	700	883	784	936	575	650
	Total	977	1,294	1,640	1,509	1,755	1,225	1,300
QC	Semi-Detached	2,932	2,678	2,599	2,750	3,491	2,700	2,750
	Row	1,109	1,074	1,343	1,934	1,918	1,700	1,750
	Apartment	25,536	23,228	22,018	21,692	22,714	19,000	19,000
	Total	29,577	26,980	25,960	26,376	28,123	23,400	23,500
ON	Semi-Detached	5,172	4,673	4,393	4,284	3,415	3,300	3,000
	Row	12,824	12,537	11,046	11,255	11,212	7,200	8,500
	Apartment	18,189	19,903	19,669	14,674	29,341	22,975	22,800
	Total	36,185	37,113	35,108	30,213	43,968	33,475	34,300
MAN	Semi-Detached	132	133	178	175	168	150	175
	Row	92	161	158	198	480	275	275
	Apartment	732	728	1,140	1,508	1,199	825	900
	Total	956	1,022	1,476	1,881	1,847	1,250	1,350
SK	Semi-Detached	184	236	123	317	251	175	200
	Row	681	378	423	831	506	375	400
	Apartment	723	398	480	842	1,553	550	650
	Total	1,588	1,012	1,026	1,990	2,310	1,100	1,250
ALB	Semi-Detached	2,916	3,012	3,807	3,699	2,125	1,300	1,400
	Row	2,401	2,951	2,935	4,377	2,210	1,200	1,300
	Apartment	8,466	8,200	10,385	12,155	10,113	1,500	2,000
	Total	13,783	14,163	17,127	20,231	14,448	4,000	4,700
B.C.	Semi-Detached	2,062	1,791	2,239	2,111	2,061	1,200	1,400
	Row	4,387	4,459	4,476	4,175	3,926	2,300	2,500
	Apartment	12,420	14,698	14,295	18,435	17,343	9,800	10,000
	Total	18,869	20,948	21,010	24,721	23,330	13,300	13,900
CAN*	Semi-Detached	14,297	13,477	14,358	14,432	12,651	9,725	9,870
	Row	22,067	22,134	20,963	23,281	20,868	13,550	15,230
	Apartment	67,896	69,407	70,761	71,713	84,335	56,225	57,300
	Total	104,260	105,018	106,082	109,426	117,854	79,500	82,400

Source: CMHC (F) Forecast. * Totals may not add due to rounding.

Table 5: Total Residential Resales
(units and annual percentage change)

	2004	2005	2006	2007	2008	2009(F)	2010(F)
NFLD	3,265	3,211	3,537	4,471	4,695	4,000	4,200
%	0.8	-1.7	10.2	26.4	5.0	-14.8	5.0
PEI	1,500	1,449	1,492	1,769	1,413	1,300	1,325
%	6.8	-3.4	3.0	18.6	-20.1	-8.0	1.9
NS	8,887	10,948	10,697	11,857	10,874	9,000	9,500
%	-3.6	23.2	-2.3	10.8	-8.3	-17.2	5.6
NB	5,979	6,836	7,125	8,161	7,555	6,500	6,750
%	8.9	14.3	4.2	14.5	-7.4	-14.0	3.8
QUE	70,669	72,670	74,192	83,847	79,402	70,000	77,000
%	2.9	2.8	2.1	13.0	-5.3	-11.8	10.0
ONT	197,353	197,140	194,930	213,379	181,001	144,200	150,100
%	7.0	-0.1	-1.1	9.5	-15.2	-20.3	4.1
MAN	12,098	12,761	13,018	13,928	13,525	11,800	12,400
%	5.0	5.5	2.0	7.0	-2.9	-12.8	5.1
SASK	8,172	8,312	9,140	12,054	10,203	8,600	9,000
%	6.2	1.7	10.0	31.9	-15.4	-15.7	4.7
ALTA	57,460	65,866	74,350	71,430	56,399	44,000	48,000
%	11.9	14.6	12.9	-3.9	-21.0	-22.0	9.1
BC	96,385	106,310	96,671	102,805	68,923	58,100	67,750
%	3.5	10.3	-9.1	6.3	-33.0	-15.7	16.6
CAN*	461,768	485,503	485,152	523,701	433,990	357,800	386,100
%	5.9	5.1	-0.1	7.9	-17.1	-17.6	7.9

SOURCE: The Canadian Real Estate Association.

(F) Forecast by CMHC.

* Totals may not add due to rounding, excludes Territories and Nunavut. The point estimate for the forecast of national residential resales is 357,800 for 2009 and 386,100 for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 320,000-380,000 units for 2009 and from 350,000-430,000 units for 2010.

Table 6: Average Residential Resale Price (\$)
(units and annual percentage change)

	2004	2005	2006	2007	2008	2009(F)	2010(F)
NFLD	131,499	141,167	139,542	149,258	178,477	192,500	198,000
%	9.7	7.4	-1.2	7.0	19.6	7.9	2.9
PEI	110,815	117,238	125,430	133,457	139,944	140,250	141,500
%	8.9	5.8	7.0	6.4	4.9	0.2	0.9
NS	146,033	159,221	168,614	180,989	189,902	190,000	195,000
%	7.1	9.0	5.9	7.3	4.9	0.1	2.6
NB	112,933	120,641	126,864	136,603	145,762	146,500	149,000
%	6.7	6.8	5.2	7.7	6.7	0.5	1.7
QUE	167,546	180,529	190,348	202,392	210,775	207,200	207,500
%	12.5	7.7	5.4	6.3	4.1	-1.7	0.1
ONT	245,230	262,949	278,364	299,544	302,354	287,100	276,700
%	8.1	7.2	5.9	7.6	0.9	-5.0	-3.6
MAN	119,245	133,854	150,229	169,189	190,296	187,000	194,000
%	11.7	12.3	12.2	12.6	12.5	-1.7	3.7
SASK	110,824	122,765	132,078	174,405	224,586	222,000	224,000
%	5.6	10.8	7.6	32.0	28.8	-1.2	0.9
ALTA	194,769	218,266	285,383	356,235	352,857	322,500	329,000
%	6.5	12.1	30.7	24.8	-0.9	-8.6	2.0
BC	289,107	332,224	390,963	439,119	454,599	403,700	406,400
%	11.2	14.9	17.7	12.3	3.5	-11.2	0.7
CAN*	225,678	248,343	276,095	305,707	303,607	283,100	283,100
%	9.3	10.0	11.2	10.7	-0.7	-6.8	0.0

SOURCE: The Canadian Real Estate Association.

(F) Forecast by CMHC.

* Canadian average excludes Territories and Nunavut. The point estimate for the forecast of national average price is \$283,100 for 2009 and \$283,100 for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from \$270,000-\$295,000 for 2009 and from \$270,000-\$300,000 for 2010.

Table 7: Employment (annual percentage change)							
	2004	2005	2006	2007	2008	2009(F)	2010(F)
NFLD	0.9	-0.1	0.7	0.6	1.5	-1.0	0.8
PEI	1.2	1.9	0.6	1.0	1.3	-1.4	0.5
NS	2.6	0.2	-0.3	1.3	1.3	-0.6	0.6
NB	2.0	0.1	1.4	2.1	0.9	-0.8	0.7
QUE	1.4	1.0	1.3	2.3	0.8	-1.9	0.1
ONT	1.7	1.3	1.5	1.6	1.4	-2.4	0.2
MAN	1.1	0.6	1.2	1.6	1.7	-0.4	0.4
SASK	0.8	0.8	1.7	2.1	2.2	0.7	0.3
ALTA	2.4	1.5	4.8	4.7	2.8	-1.4	0.3
BC	2.4	3.3	3.1	3.2	2.1	-2.3	1.5
CAN*	1.8	1.4	1.9	2.3	1.5	-1.9	0.4

Source: Statistics Canada.

(F) Forecast by CMHC

*The point estimate for the forecast of national employment growth is -1.9 per cent for 2009 and 0.4 per cent for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from -3.2 per cent to -1.1 per cent in 2009 and -1.4 per cent to 1.6 per cent in 2010.

Table 8: Unemployment Rate (percent)							
	2004	2005	2006	2007	2008	2009(F)	2010(F)
NFLD	15.7	15.2	14.8	13.6	13.2	14.3	14.5
PEI	11.3	10.8	11.0	10.3	10.8	12.4	12.6
NS	8.8	8.4	7.9	8.0	7.7	9.0	9.3
NB	9.8	9.7	8.8	7.5	8.6	10.1	10.2
QUE	8.5	8.3	8.0	7.2	7.2	8.7	8.9
ONT	6.8	6.6	6.3	6.4	6.5	8.7	8.7
MAN	5.3	4.8	4.3	4.4	4.2	5.5	6.0
SASK	5.3	5.1	4.7	4.2	4.1	5.5	6.1
ALTA	4.6	3.9	3.4	3.5	3.6	6.3	6.7
BC	7.2	5.9	4.8	4.2	4.6	7.2	7.5
CAN*	7.2	6.8	6.3	6.0	6.1	8.2	8.4

Source: Statistics Canada.

(F) Forecast by CMHC.

*The point estimate for the forecast of national unemployment is 8.2 per cent for 2009 and 8.4 per cent for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from 8.0 per cent to 9.4 per cent in 2009 and 8.0 per cent to 9.6 per cent in 2010.

Table 9: Gross Domestic Product (annual percentage change)							
	2004	2005	2006	2007	2008	2009(F)	2010(F)
NFLD	-1.2	1.9	3.0	9.1	-0.1	-5.0	1.5
PEI	2.6	2.0	2.4	2.4	0.9	-1.8	0.8
NS	0.9	1.3	0.9	1.7	2.0	-1.0	1.0
NB	2.8	1.6	2.4	1.7	0.0	-1.2	1.0
QUE	2.7	1.5	1.7	2.6	1.0	-2.0	1.4
ONT	2.6	2.8	2.6	2.3	-0.4	-2.5	1.5
MAN	2.2	2.4	4.0	3.3	2.4	-0.5	1.6
SASK	5.1	3.3	-0.3	2.5	4.4	0.6	2.0
ALTA	5.3	4.8	6.1	3.1	-0.2	-2.3	1.5
BC	3.6	4.4	4.4	3.0	-0.3	-1.9	1.9
CAN*	3.1	2.9	3.1	2.7	0.5	-2.2	1.7

Source: Statistics Canada.

(F) Forecast by CMHC.

*The point estimate for the forecast of national GDP growth is -2.2 per cent for 2009 and 1.7 percent for 2010. Economic uncertainty is reflected by the current range of forecasts which varies from -3.0 per cent to -1.5 per cent in 2009 and 1.3 per cent to 2.8 per cent in 2010.

Table 10: Total Net Migration *							
(number of persons)							
	2004	2005	2006	2007	2008	2009(F)	2010(F)
NFLD	-2,359	-4,476	-3,915	-873	1,573	850	900
PEI	26	16	-111	417	1,530	950	700
NS	-681	-1,831	-1,998	311	2,392	800	1,200
NB	-241	-2,009	-2,899	968	1,145	900	1,050
QUE	36,189	29,035	27,214	31,162	36,066	38,500	39,400
ONT	102,965	102,789	83,561	85,809	87,805	88,600	95,000
MAN	3,128	-1,487	1,612	8,906	8,544	8,300	8,250
SASK	-4,459	-7,481	-1,769	11,388	11,648	10,300	9,600
ALTA	35,470	62,106	70,258	43,252	64,126	38,000	46,000
BC	42,511	50,822	52,789	58,277	61,559	62,700	63,000
CAN**	212,549	227,484	224,742	239,617	276,388	249,900	265,100

Source: Statistics Canada.

(F) Forecast by CMHC.

* Sum of interprovincial migration, international migration and non-permanent residents.

** Excludes Territories and Nunavut.

Table 11a: Local Market Indicators

Census Metropolitan Area		Total Housing Starts	Single-Detached	NHPI Annual % Change	MLS® Sales	MLS® Avg. Price	Rental Vac. Rate (3+ Units)	Avg. Rent Two Bedroom (3 Units)
Victoria	2008	1,905	673	-0.1	6,171	484,898	0.5	965
	2009(F)	1,200	650	-8.0	5,400	425,000	0.9	1,005
	2010(F)	1,150	550	-3.0	5,600	420,000	1.2	1,045
Vancouver*	2008	19,591	3,634	2.3	25,149	593,767	0.5	1,124
	2009(F)	11,000	2,500	-5.0	22,000	516,000	1.2	1,164
	2010(F)	11,500	2,900	-1.0	25,000	504,000	1.5	1,210
Abbotsford	2008	1,285	358	n.a.	2,674	355,099	2.6	765
	2009(F)	550	250	n.a.	2,400	315,000	3.2	780
	2010(F)	500	200	n.a.	2,450	320,000	3.5	792
Kelowna	2008	2,257	765	n.a.	3,445	430,755	0.3	967
	2009(F)	850	325	n.a.	2,900	365,000	2.2	980
	2010(F)	800	375	n.a.	3,350	355,000	2.7	965
Edmonton	2008	6,615	2,613	1.0	17,369	332,852	2.4	1,034
	2009(F)	3,250	2,000	-8.0	14,500	310,000	4.0	1,035
	2010(F)	4,100	2,600	1.5	16,000	318,500	3.5	1,070
Calgary	2008	11,438	4,387	0.6	23,136	405,267	2.1	1,148
	2009(F)	3,700	2,700	-8.5	17,000	372,000	4.0	1,075
	2010(F)	4,200	3,000	0.0	18,700	382,000	3.5	1,100
Saskatoon	2008	2,319	1,288	20.6	3,540	287,803	1.9	841
	2009(F)	1,100	600	-6.6	3,000	275,000	2.0	860
	2010(F)	1,275	725	3.0	3,150	280,000	3.0	870
Regina	2008	1,375	979	26.2	3,338	229,716	0.5	756
	2009(F)	1,000	700	4.8	2,800	230,000	1.2	850
	2010(F)	1,100	750	2.7	3,000	232,000	2.0	860
Winnipeg	2008	3,009	1,930	10.2	11,854	196,940	1.0	769
	2009(F)	2,200	1,450	2.0	10,500	190,000	1.0	800
	2010(F)	2,350	1,550	2.5	11,000	197,500	1.2	825
Thunder Bay	2008	167	165	5.5	1,649	139,301	2.2	719
	2009(F)	175	145	1.5	1,320	142,100	1.6	735
	2010(F)	210	155	2.0	1,400	145,500	2.0	745
Sudbury	2008	543	469	5.5	2,396	211,614	0.7	800
	2009(F)	420	300	1.5	1,550	197,000	1.0	840
	2010(F)	400	280	2.0	1,600	188,000	0.9	880
Windsor	2008	453	328	-2.2	4,546	159,709	14.6	772
	2009(F)	305	225	-1.0	3,600	142,000	17.0	775
	2010(F)	330	250	0.5	3,725	136,000	14.0	775

Sources: CMHC, Canadian Real Estate Association, Local Real Estate Boards, Statistics Canada.

*MLS® sales and prices for the Vancouver CMA refer only to the Real Estate Board of Greater Vancouver (REBGV) board area, which does not include Surrey, Langley, White Rock, and North Delta.

n.a.: Data not available. (F) Forecast by CMHC.

Table 11b: Local Market Indicators

Census Metropolitan Area		Total Housing Starts	Single-Detached	NHPI Annual % Change	MLS® Sales	MLS® Avg. Price	Rental Vac. Rate (3+ Units)	Avg. Rent Two Bedroom (3 Units)
London	2008	2,385	1,369	3.0	8,620	212,092	3.9	834
	2009(F)	1,500	650	0.0	6,500	207,000	4.2	845
	2010(F)	1,450	700	0.0	6,700	205,000	3.9	855
Kitchener	2008	2,634	1,446	2.0	6,269	271,222	1.8	845
	2009(F)	2,200	1,100	0.0	5,100	257,000	1.6	860
	2010(F)	2,300	1,100	0.0	5,300	251,000	1.5	875
St.Catharines-Niagara	2008	1,138	680	4.3	5,896	203,648	4.3	777
	2009(F)	900	500	-1.0	4,700	195,000	4.0	790
	2010(F)	950	500	0.0	4,900	192,000	4.0	800
Hamilton	2008	3,529	1,675	3.1	12,110	280,790	3.2	836
	2009(F)	2,495	1,050	-3.8	9,600	267,000	2.9	850
	2010(F)	2,650	1,175	-2.0	10,000	258,000	3.0	865
Toronto	2008	42,212	11,308	3.5	76,387	379,943	2.0	1,095
	2009(F)	26,850	5,500	-2.0	60,000	360,000	1.8	1,120
	2010(F)	27,500	5,700	-1.0	63,500	348,000	1.7	1,140
Barrie	2008	1,416	858	n.a.	4,058	264,034	3.5	954
	2009(F)	1,065	640	n.a.	3,410	250,835	3.0	970
	2010(F)	1,065	630	n.a.	3,445	242,555	3.1	960
Peterborough	2008	428	300	n.a.	2,506	230,656	2.4	850
	2009(F)	320	240	n.a.	1,820	215,000	2.2	870
	2010(F)	340	255	n.a.	1,900	207,000	2.0	890
Brantford	2008	432	283	n.a.	2,097	218,890	2.4	752
	2009(F)	360	275	n.a.	1,500	208,000	2.2	760
	2010(F)	380	275	n.a.	1,575	205,000	2.2	770
Guelph	2008	1,087	425	n.a.	2,794	267,329	2.3	869
	2009(F)	550	250	n.a.	2,200	255,000	2.0	885
	2010(F)	625	275	n.a.	2,300	250,000	1.9	900
Oshawa*	2008	1,987	1,500	n.a.	8,797	273,984	4.2	889
	2009(F)	1,048	620	n.a.	6,250	259,000	3.7	905
	2010(F)	1,138	720	n.a.	6,400	250,000	3.3	920
Kingston	2008	672	546	n.a.	3,473	235,047	1.3	880
	2009(F)	500	400	n.a.	3,200	233,500	1.2	905
	2010(F)	515	375	n.a.	3,300	237,000	1.9	930

Sources: CMHC, Canadian Real Estate Association, Local Real Estate Boards, Statistics Canada.

MLS® data for St. Catharines-Niagara is aggregated using total numbers of the area's three real estate boards.

*MLS® numbers reflect all of Durham Region.

n.a.: Data not available. (F) Forecast by CMHC.

Table 11c: Local Market Indicators

Census Metropolitan Area		Total Housing Starts	Single-Detached	NHPI Annual % Change	MLS® Sales	MLS® Avg. Price	Rental Vac. Rate (3+ Units)	Avg. Rent Two Bedroom (3 Units)
Ottawa	2008	6,998	2,956	3.8	13,908	290,483	1.4	995
	2009(F)	5,375	2,125	0.5	12,500	289,000	1.0	1,025
	2010(F)	5,500	2,000	1.5	13,200	291,000	0.8	1,065
Gatineau	2008	3,304	1,120	3.1	4,390	186,212	1.9	677
	2009(F)	2,700	850	0.5	3,975	189,000	2.5	690
	2010(F)	2,750	800	1.5	3,875	190,900	2.5	705
Montréal	2008	21,927	6,602	4.9	40,440	258,028	2.4	659
	2009(F)	17,700	5,200	2.6	36,500	255,000	2.0	668
	2010(F)	18,900	5,500	2.4	39,500	256,000	2.3	675
Trois-Rivières	2008	1,148	373	n.a.	799	141,610	1.7	505
	2009(F)	850	325	n.a.	760	146,000	1.8	515
	2010(F)	800	310	n.a.	750	150,000	2.0	525
Sherbrooke	2008	1,627	802	n.a.	1,864	179,434	2.8	543
	2009(F)	1,545	730	n.a.	1,800	179,400	3.0	555
	2010(F)	1,450	750	n.a.	1,890	179,500	3.1	565
Québec	2008	5,457	2,031	5.3	8,003	193,195	0.6	653
	2009(F)	4,795	1,725	3.0	7,445	198,991	0.6	663
	2010(F)	4,330	1,465	2.5	7,820	204,961	0.6	673
Saguenay	2008	869	400	n.a.	1,557	150,597	1.6	518
	2009(F)	645	295	n.a.	1,250	156,600	2.0	530
	2010(F)	565	300	n.a.	1,350	163,600	2.0	540
Saint John	2008	832	488	2.5	2,166	158,117	3.1	618
	2009(F)	725	425	2.5	1,800	163,500	2.8	600
	2010(F)	760	440	2.0	1,850	170,000	2.5	615
Moncton	2008	1,359	566	2.5	2,663	143,173	2.4	656
	2009(F)	1,165	540	2.5	2,300	145,500	2.5	640
	2010(F)	1,230	560	2.0	2,350	149,000	3.0	660
Halifax	2008	2,096	1,180	7.9	6,205	229,916	3.4	833
	2009(F)	1,780	900	3.5	5,500	230,000	3.5	850
	2010(F)	2,080	1,000	2.0	5,900	235,000	3.3	865
St. John's	2008	1,863	1,485	19.6	3,835	187,571	0.8	630
	2009(F)	1,550	1,200	12.5	3,450	198,000	1.0	700
	2010(F)	1,800	1,400	5.0	3,575	204,000	1.5	725
Charlottetown	2008	426	280	1.4	595	175,231	2.3	672
	2009(F)	350	225	2.0	540	177,000	2.0	715
	2010(F)	375	250	2.0	555	179,500	1.8	735
ALL LISTED	2008	156,783	56,262	3.4	324,699	322,845	2.2	847
CENTRES	2009(F)	102,718	37,610	-4.5	269,070	302,617	2.2	864
	2010(F)	107,368	39,815	0.2	286,910	301,858	2.2	881

Sources: CMHC, Canadian Real Estate Association, Local Real Estate Boards, Statistics Canada.

MLS® data for St. Catharines-Niagara is aggregated using total numbers of the area's three real estate boards.

*MLS® numbers reflect all of Durham Region.

n.a.: Data not available. (F) Forecast by CMHC.

Table 12: Major Housing Indicators
(levels and quarterly percent change)

	2007Q2	2007Q3	2007Q4	2008Q1	2008Q2	2008Q3	2008Q4	2009Q1
New Housing								
Building permits, units, thousands	249.7	244.0	238.8	215.9	228.6	208.4	168.0	126.1
% change	14.2	-2.3	-2.1	-9.6	5.9	-8.8	-19.4	-24.9
Housing starts, total, thousands	227.8	241.0	217.6	235.1	217.6	207.7	184.9	139.4
% change	1.2	5.8	-9.7	8.0	-7.4	-4.5	-11.0	-24.6
Housing starts, singles, thousands	119.1	119.8	116.4	99.1	96.6	93.9	84.3	62.0
% change	0.3	0.6	-2.8	-14.9	-2.5	-2.8	-10.2	-26.5
Housing starts, multiples, thousands	108.7	121.2	101.2	136.0	121.0	113.8	100.6	77.4
% change	2.2	11.5	-16.5	34.4	-11.0	-6.0	-11.6	-23.1
Housing completions, total,	50,517	56,042	55,814	44,261	52,688	58,197	58,991	39,378
% change	8.6	10.9	-0.4	-20.7	19.0	10.5	1.4	-33.2
New house price index, 1997=100	151.9	155.0	156.3	158.0	158.4	158.6	157.7	155.9
% change	2.2	2.1	0.8	1.1	0.3	0.1	-0.6	-1.2
Existing Housing								
MLS® resales, units, thousands	133,851	128,172	128,455	120,133	115,838	111,703	86,678	86,619
% change	0.4	-4.2	0.2	-6.5	-3.6	-3.6	-22.4	-0.1
MLS® average resale price, \$C	303,804	308,469	318,623	314,581	309,784	297,923	287,832	283,475
% change	3.6	1.5	3.3	-1.3	-1.5	-3.8	-3.4	-1.5
Mortgage Market								
1-year mortgage rate, per cent*	6.83	7.05	7.27	7.25	6.68	6.75	6.10	4.83
5-year mortgage rate, per cent*	7.01	7.22	7.46	7.29	6.93	6.95	7.05	5.71
Residential Investment**								
Total, \$1997 millions	81,119	81,901	82,164	80,982	80,172	79,709	74,839	n.a.
% change	1.3	1.0	0.3	-1.4	-1.0	-0.6	-6.1	n.a.
New, \$1997 millions	36,941	37,670	38,094	37,157	36,575	36,579	36,004	n.a.
% change	1.2	2.0	1.1	-2.5	-1.6	0.0	-1.6	n.a.
Alterations, \$1997 millions	31,604	31,972	32,436	33,336	33,228	33,120	31,728	n.a.
% change	0.8	1.2	1.5	2.8	-0.3	-0.3	-4.2	n.a.
Transfer costs, \$1997 millions	12,916	12,668	12,188	11,388	11,296	10,980	8,332	n.a.
% change	2.7	-1.9	-3.8	-6.6	-0.8	-2.8	-24.1	n.a.
Deflator, 1997=100	133.8	135.5	136.8	137.1	137.5	138.0	137.8	n.a.
% change	2.0	1.2	1.0	0.2	0.3	0.4	-0.1	n.a.

Sources: CMHC, Statistics Canada, Bank of Canada, Canadian Real Estate Association.

n.a.: Data not available.

* All indicators are seasonally adjusted and annualized except the New house price index and the Residential Investment deflator which are only seasonally adjusted and Housing completions and the 1-year and 5-year mortgage rates which are not adjusted or annualized.

** Residential Investment includes outlays for new permanent housing, conversion costs, cost of alterations and improvements, supplementary costs, and transfer costs.

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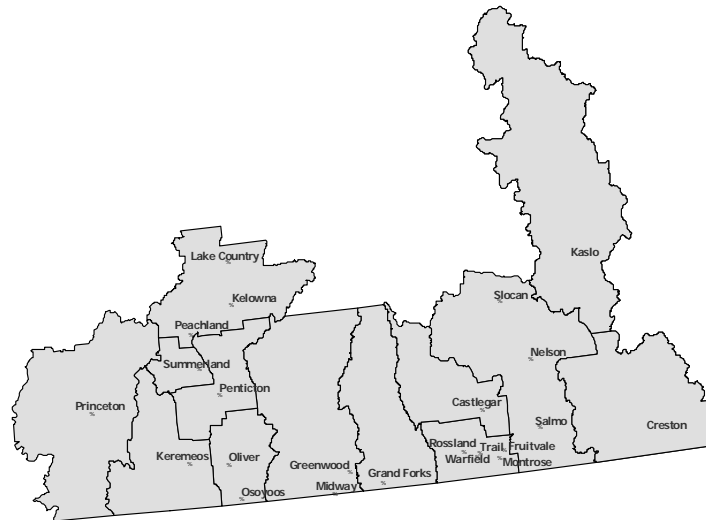
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Fortis Region

Special Region 300



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P.E.O.P.L.E. Run 34, July 2009

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**Fortis Area
as represented by
Local Health Areas
2006**



SPECIAL AREA 300: Fortis BC - TOTAL

Local Health Areas in Special Area: Creston (partial), Kootenay Lake, Nelson, Castlegar, Trail, Grand Forks, Kettle Valley, Southern Okanagan, Penticton, Keremeos, Princeton, Central Okanagan (partial), Summerland

General Economy

Forestry and agriculture are the main economic activities in this area, although mining and tourism are also important. Another major employer in the area is the Cominco lead-zinc smelter at Trail. Most of the people working in the Trail area are either directly employed by Cominco, or work in a job providing goods and services that is directly or indirectly dependent on Cominco. Major developments that could affect this area include the upgrading and expansion of the Waneta, Keenleyside and Brilliant dams. Construction activity should boost the population of both these areas and surrounding areas for the duration of the work on the dams.

Demographics

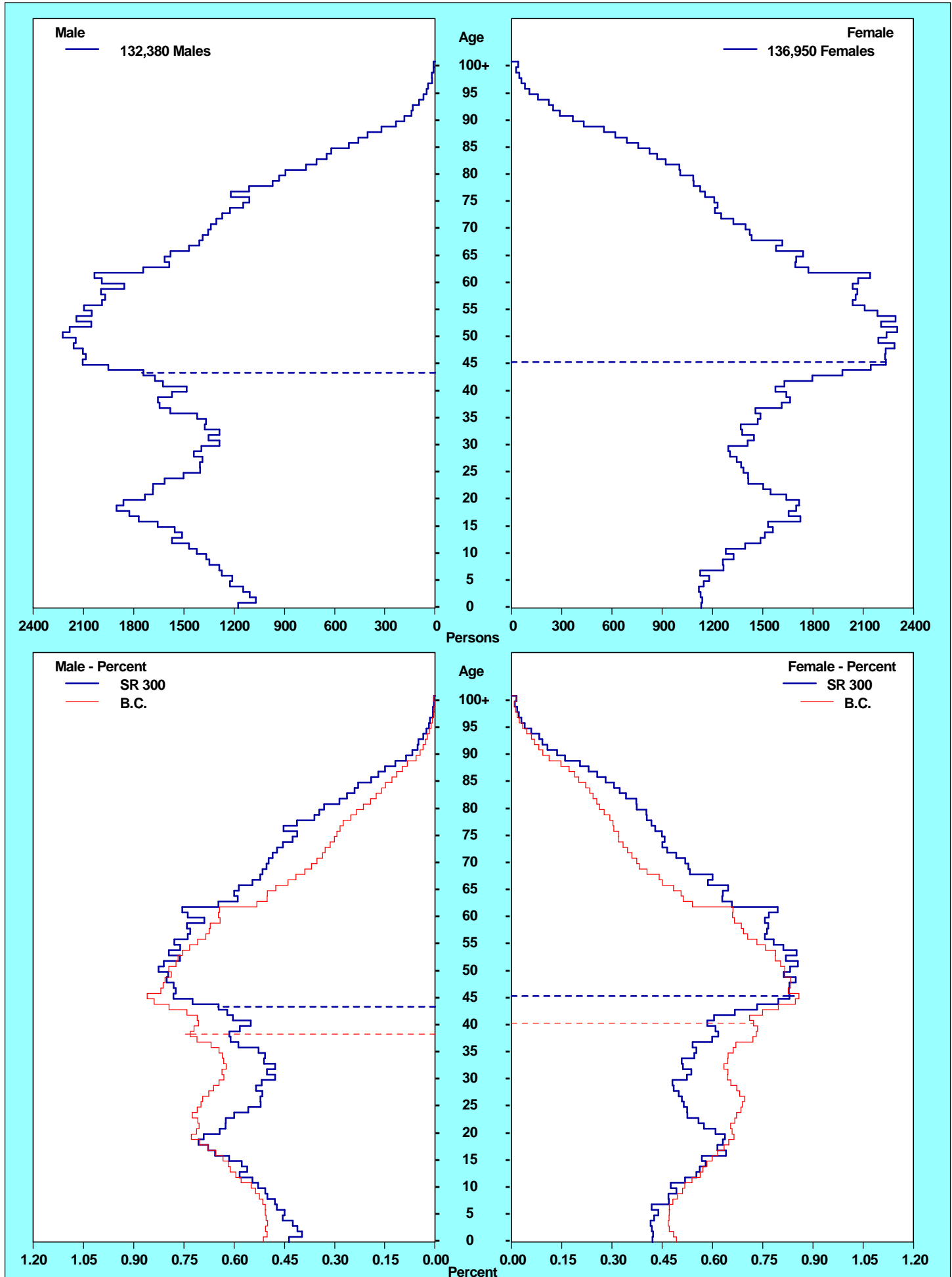
This area has generally received net inflows of migrants, except for a period in the mid-eighties when the downturn in the resource sectors led to net outflows. The median age of the population in this area is older than the provincial median, probably due to the retirement centres in the Okanagan portion of the region. Since women tend to have a longer life expectancy than men, the older population means that the gender ratio is biased in favour of females, even more so than for the province as a whole. The elderly dependency ratio (i.e., the ratio of those aged 65 and over, to those aged 18 to 64) is also higher for this region compared to British Columbia as a whole.

Projections

Throughout the projection period migration inflows exceed outflows, with net migration increasing from around 3,100 at the start of the projection, to about 3,600 by the end. Deaths are expected to continue to exceed births by a widening margin, reducing the average annual natural increase from -270 in the first five years, to -1,600 in the last five. Despite the population losses from natural change, the population is expected to increase by about 70,700 during the projection period. The population is expected to continue to age and, by the end of the projection period, overall dependency is expected to reach 8 for every 10 people of working age, with most of these dependents being elderly. This dependency ratio is similar to the provincial average of 7:10.

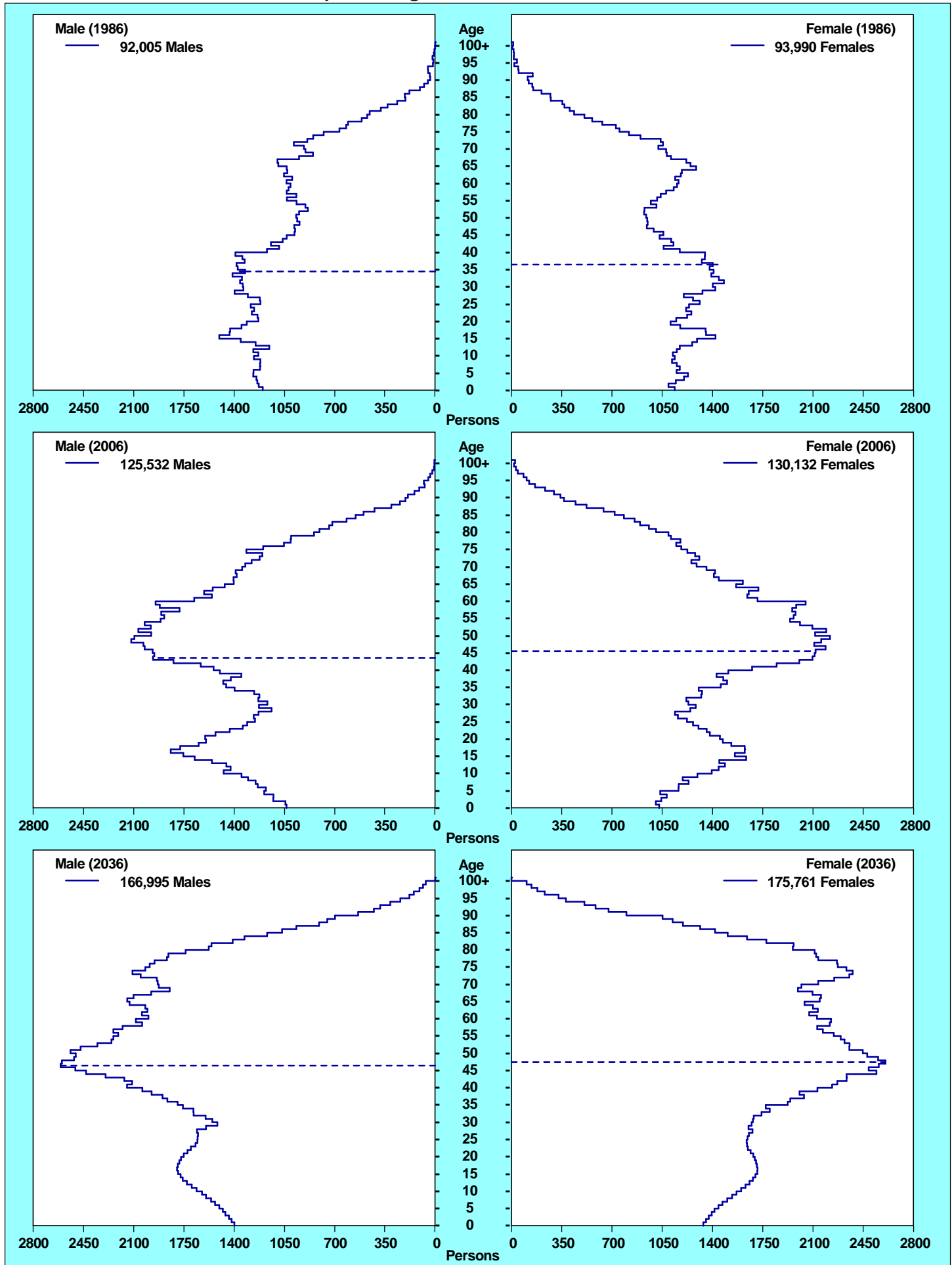
Population Age Distribution - 2008 Special Region 300: Fortis BC - Total

Appendix BCUC 39.3



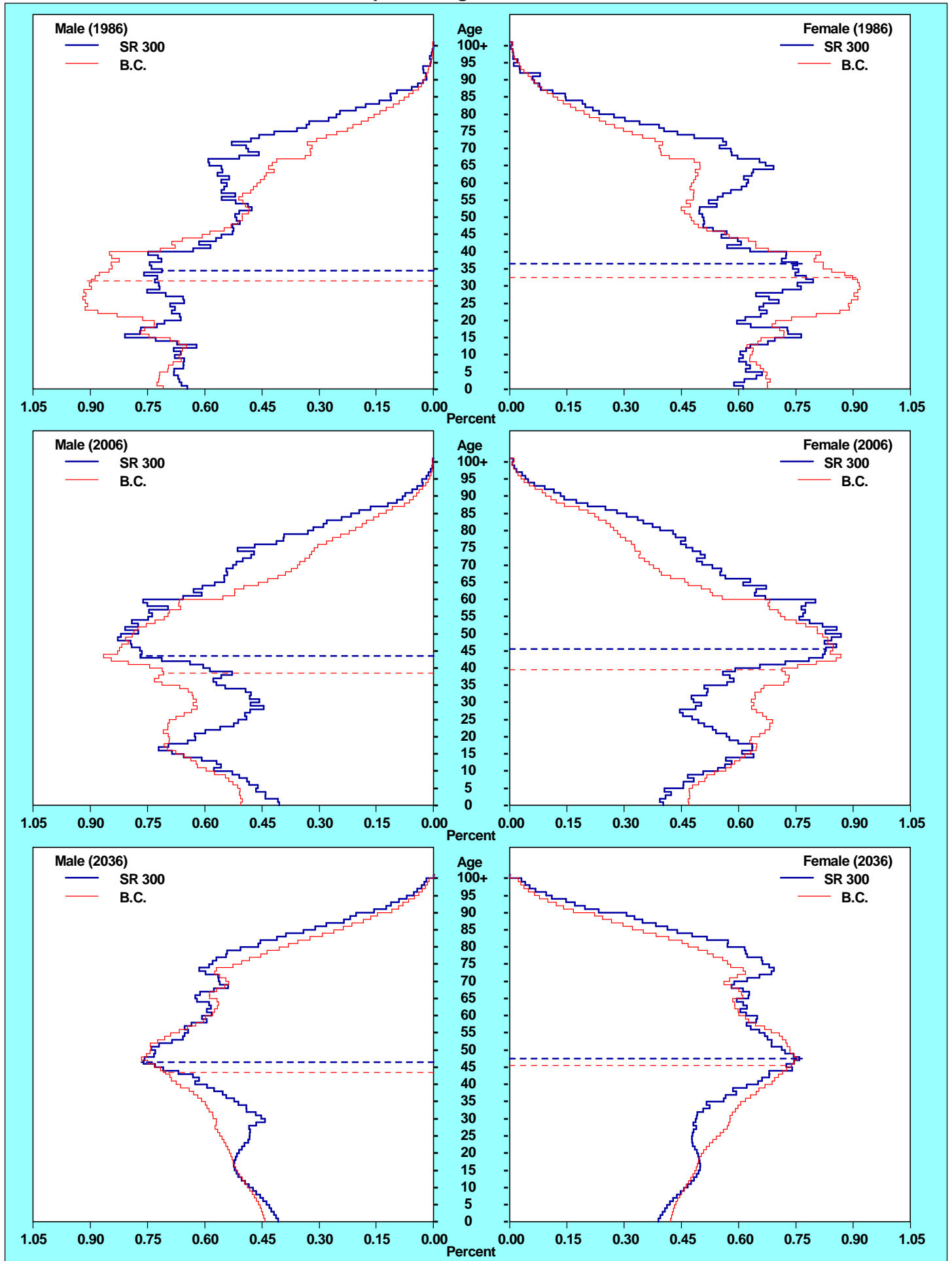
Population Age Distribution - 1986 2006 2036 Special Region 300: Fortis BC - Total

Appendix BCUC 39.3

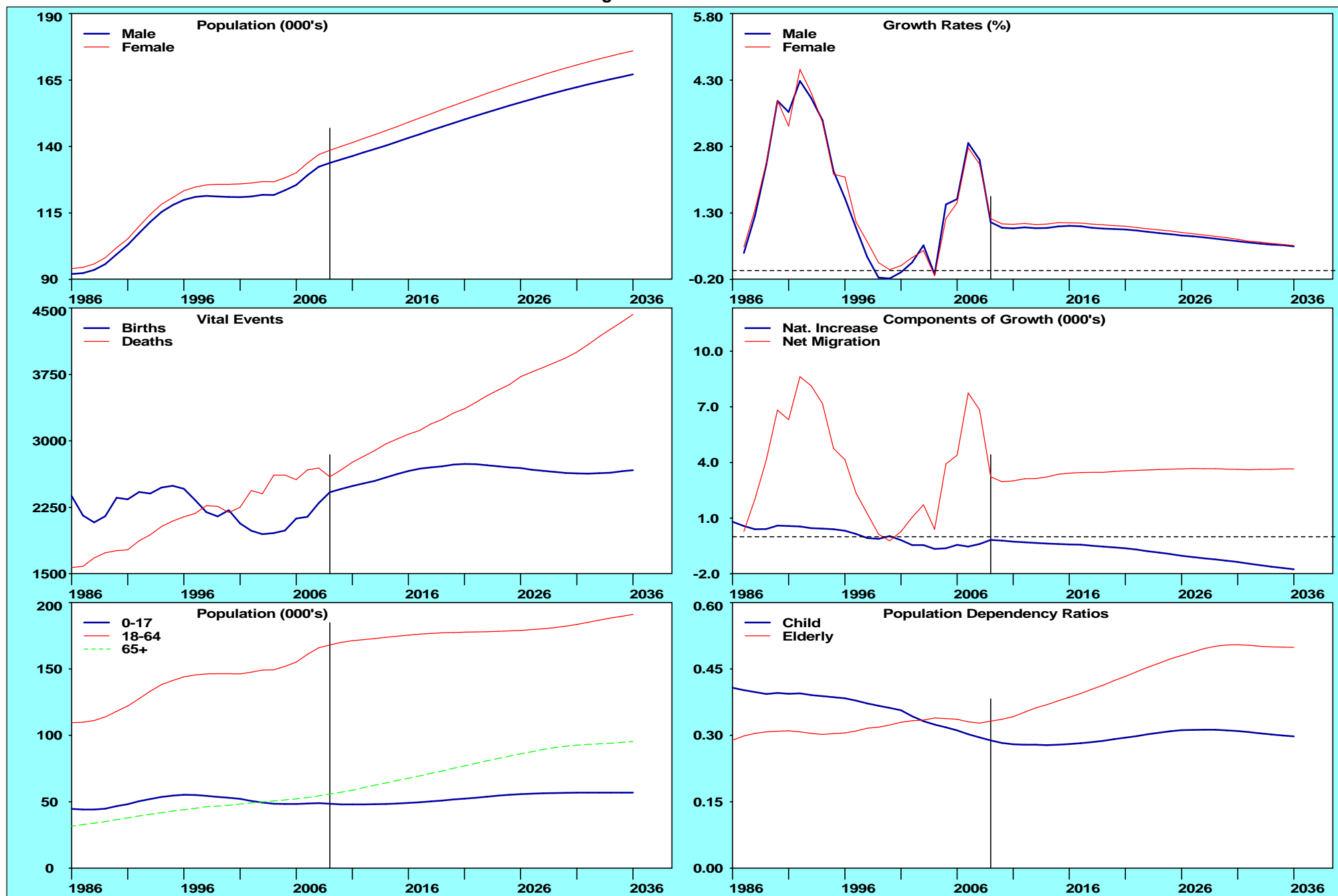


Population Age Distribution - 1986 2006 2036 B.C. and Special Region 300: Fortis BC - Total

Appendix BCUC 39.3



Summary Plots for Special Regions Region 300: Fortis BC - Total



Prepared by: BC Stats, Ministry of Citizens' Services

Note: Vertical line indicates first year of PEOPLE 34 projection

Source: Estimates - BC STATS. Projections - PEOPLE 34

Historical Vital Event data - Vital Statistics, MH.

Summary Statistics for Special Regions
Region 300: Fortis BC - Total

Year	Births	Deaths	Natural Increase	Net Mig	Year	Population	Pop Gr Rate	Density/ Sq.Km	Median Age	Sex Ratio	TFR	Crude Dth Rate	Median Age Dth	Child Dep.	Elderly Dep.	House-holds
1985-1986	2,377	1,569	808	N/A	1986	185,995	N/A	4.8	36.5	97.9	N/A	N/A	75.4	0.407	0.289	74,373
1986-1987	2,157	1,584	573	286	1987	186,854	0.5	4.8	37.0	97.8	1,670	8.5	75.7	0.402	0.299	74,696
1987-1988	2,079	1,678	401	2,041	1988	189,296	1.3	4.8	37.5	97.6	1,627	8.9	76.0	0.398	0.305	75,636
1988-1989	2,150	1,736	414	4,155	1989	193,865	2.4	5.0	37.8	97.6	1,673	9.1	75.9	0.394	0.308	77,413
1989-1990	2,358	1,760	598	6,831	1990	201,294	3.8	5.2	38.0	97.6	1,806	8.9	76.8	0.396	0.309	80,315
1990-1991	2,341	1,770	571	6,312	1991	208,177	3.4	5.3	38.2	97.9	1,765	8.6	76.4	0.394	0.310	82,980
1991-1992	2,423	1,873	550	8,634	1992	217,361	4.4	5.6	38.3	97.6	1,779	8.8	76.8	0.395	0.308	87,021
1992-1993	2,405	1,941	464	8,143	1993	225,968	4.0	5.8	38.5	97.5	1,711	8.8	77.5	0.391	0.304	90,891
1993-1994	2,473	2,034	439	7,187	1994	233,594	3.4	6.0	38.8	97.6	1,709	8.9	76.9	0.389	0.302	94,389
1994-1995	2,492	2,094	398	4,752	1995	238,744	2.2	6.1	39.1	97.6	1,716	8.9	77.9	0.386	0.304	96,867
1995-1996	2,459	2,142	317	4,155	1996	243,216	1.9	6.2	39.4	97.2	1,679	8.9	78.0	0.384	0.305	99,067
1996-1997	2,332	2,182	150	2,351	1997	245,717	1.0	6.3	39.9	97.0	1,588	8.9	78.4	0.378	0.310	100,848
1997-1998	2,195	2,269	-74	1,255	1998	246,898	0.5	6.3	40.6	96.7	1,514	9.2	78.4	0.372	0.316	101,519
1998-1999	2,147	2,260	-113	140	1999	246,925	0.0	6.3	41.2	96.4	1,514	9.2	78.8	0.367	0.319	102,099
1999-2000	2,217	2,190	27	-222	2000	246,730	-0.1	6.3	41.8	96.2	1,599	8.9	79.1	0.362	0.323	102,752
2000-2001	2,067	2,252	-185	276	2001	246,821	0.0	6.3	42.4	96.0	1,522	9.1	79.4	0.357	0.330	104,159
2001-2002	1,986	2,441	-455	1,047	2002	247,413	0.2	6.3	43.1	95.9	1,493	9.9	79.5	0.343	0.333	105,684
2002-2003	1,947	2,404	-457	1,712	2003	248,668	0.5	6.4	43.7	96.1	1,475	9.7	79.6	0.332	0.335	106,429
2003-2004	1,959	2,615	-656	397	2004	248,409	-0.1	6.4	44.4	96.1	1,506	10.5	79.9	0.324	0.339	106,545
2004-2005	1,988	2,614	-626	3,926	2005	251,709	1.3	6.4	44.8	96.4	1,525	10.5	80.4	0.318	0.338	107,947
2005-2006	2,123	2,563	-440	4,395	2006	255,664	1.6	6.5	45.3	96.5	1,619	10.1	80.1	0.311	0.336	108,782
2006-2007	2,143	2,673	-530	7,754	2007	262,888	2.8	6.7	45.4	96.6	1,592	10.3	80.2	0.303	0.330	112,319
2007-2008	2,297	2,694	-397	6,839	2008	269,330	2.5	6.9	45.4	96.7	1,630	10.1	80.8	0.295	0.328	115,536
2008-2009	2,421	2,591	-170	3,220	2009	272,380	1.1	7.0	45.7	96.6	1,664	9.6	81.5	0.289	0.332	117,340
2009-2010	2,453	2,670	-217	2,961	2010	275,124	1.0	7.0	46.0	96.5	1,653	9.8	81.7	0.283	0.336	119,035
2010-2011	2,484	2,758	-274	3,014	2011	277,864	1.0	7.1	46.2	96.4	1,642	10.0	82.2	0.280	0.342	120,744
2011-2012	2,516	2,823	-307	3,132	2012	280,689	1.0	7.2	46.4	96.3	1,630	10.1	82.1	0.279	0.353	122,508
2012-2013	2,545	2,894	-349	3,140	2013	283,480	1.0	7.3	46.5	96.3	1,617	10.3	82.5	0.278	0.362	124,274
2013-2014	2,585	2,967	-382	3,227	2014	286,325	1.0	7.3	46.5	96.2	1,605	10.4	82.4	0.278	0.369	126,081
2014-2015	2,624	3,025	-401	3,372	2015	289,296	1.0	7.4	46.5	96.1	1,595	10.5	82.5	0.279	0.378	127,958
2015-2016	2,657	3,074	-417	3,432	2016	292,311	1.0	7.5	46.6	96.0	1,585	10.6	82.4	0.280	0.386	129,878
2016-2017	2,685	3,118	-433	3,458	2017	295,336	1.0	7.6	46.7	96.0	1,580	10.6	82.7	0.282	0.394	131,473
2017-2018	2,699	3,191	-492	3,469	2018	298,313	1.0	7.6	46.7	95.9	1,572	10.8	82.8	0.285	0.404	132,945
2018-2019	2,712	3,243	-531	3,478	2019	301,260	1.0	7.7	46.8	95.8	1,564	10.8	82.6	0.287	0.413	134,388
2019-2020	2,730	3,313	-583	3,518	2020	304,195	1.0	7.8	46.8	95.7	1,558	10.9	82.7	0.291	0.424	135,775
2020-2021	2,736	3,364	-628	3,553	2021	307,120	1.0	7.9	46.8	95.7	1,553	11.0	82.6	0.295	0.433	137,170
2021-2022	2,734	3,436	-702	3,577	2022	309,995	0.9	7.9	46.7	95.6	1,545	11.1	82.7	0.298	0.444	138,469
2022-2023	2,721	3,510	-789	3,602	2023	312,808	0.9	8.0	46.7	95.5	1,541	11.3	82.8	0.302	0.454	139,766
2023-2024	2,710	3,572	-862	3,612	2024	315,558	0.9	8.1	46.8	95.5	1,537	11.4	82.9	0.306	0.463	140,997
2024-2025	2,697	3,634	-937	3,644	2025	318,265	0.9	8.2	46.8	95.4	1,536	11.5	82.8	0.309	0.473	142,207
2025-2026	2,690	3,720	-1,030	3,660	2026	320,895	0.8	8.2	46.8	95.3	1,537	11.6	82.8	0.312	0.481	143,376
2026-2027	2,671	3,777	-1,106	3,676	2027	323,465	0.8	8.3	46.9	95.3	1,534	11.7	83.0	0.312	0.488	144,525
2027-2028	2,660	3,828	-1,168	3,673	2028	325,970	0.8	8.3	46.9	95.2	1,535	11.8	82.9	0.313	0.496	145,731
2028-2029	2,648	3,880	-1,232	3,665	2029	328,403	0.7	8.4	47.0	95.2	1,533	11.9	83.0	0.313	0.501	146,946
2029-2030	2,636	3,935	-1,299	3,650	2030	330,754	0.7	8.5	47.1	95.1	1,533	11.9	83.3	0.311	0.504	148,177
2030-2031	2,630	4,003	-1,373	3,635	2031	333,016	0.7	8.5	47.2	95.1	1,536	12.1	83.6	0.310	0.505	149,407
2031-2032	2,625	4,088	-1,463	3,616	2032	335,169	0.6	8.6	47.3	95.1	1,533	12.2	83.7	0.307	0.504	150,627
2032-2033	2,633	4,176	-1,543	3,632	2033	337,258	0.6	8.6	47.5	95.0	1,540	12.4	83.9	0.305	0.501	151,830
2033-2034	2,638	4,260	-1,622	3,637	2034	339,273	0.6	8.7	47.7	95.0	1,537	12.6	84.1	0.302	0.500	153,020
2034-2035	2,656	4,341	-1,685	3,655	2035	341,243	0.6	8.7	47.8	95.0	1,540	12.8	84.2	0.300	0.499	154,209
2035-2036	2,665	4,428	-1,763	3,657	2036	343,137	0.6	8.8	48.0	95.0	1,538	12.9	84.4	0.297	0.499	155,357

Prepared by: Demographic Analysis, BC STATS
 Ministry Citizens' Services
 Government of the Province of British Columbia
 Using P.E.O.P.L.E. Projection Model, Projection 34

Date run: July 22, 2009.
 Prepared for: Ministry of Citizens' Services
 Enquiries: Demographic Analysis, BC STATS
 Ministry of Citizens' Services, (250) 387-0327

Note: All figures as of July 1. Households = Census Definition Households Sex Ratio = Males per 100 females
 Child Dep. = Pop(0-17) / Pop(18-64) Crude Dth Rate = Census year death estimates per 1000 population
 Elderly Dep. = Pop(65+) / Pop(18-64) TFR = Lifetime births per 1000 women (15-49), calculated on census year estimates

Figures for the period 2009-2036 are projected.
 Due to rounding, the sum of the components of change may not equal the total population change.

**Population Projections for Special Regions
Region 300: Fortis BC - Total, 1986 - 2036**

Year	0-17	0-4	5-12	5-17	13-17	18-24	15+	19+	25-44	45-64	65+	80+	Total
1986	44,666	11,991	19,023	32,675	13,652	17,319	149,824	138,805	51,544	40,766	31,700	5,746	185,995
1987	44,199	11,806	19,367	32,393	13,026	16,889	150,776	140,039	52,100	40,864	32,802	6,077	186,854
1988	44,225	11,813	19,611	32,412	12,801	16,395	152,992	142,528	53,233	41,564	33,879	6,417	189,296
1989	44,849	11,852	20,306	32,997	12,691	16,235	156,703	146,291	55,153	42,553	35,075	6,791	193,865
1990	46,731	12,288	21,364	34,443	13,079	16,440	162,488	151,883	57,804	43,806	36,513	7,204	201,294
1991	48,105	12,582	22,305	35,523	13,218	16,654	167,985	157,280	60,189	45,332	37,897	7,660	208,177
1992	50,390	13,446	23,340	36,944	13,604	17,502	175,068	164,272	62,489	47,658	39,322	7,974	217,361
1993	52,099	13,699	24,266	38,400	14,134	18,245	182,200	171,093	64,795	50,255	40,574	8,537	225,968
1994	53,687	13,809	25,022	39,878	14,856	18,620	188,634	177,053	66,886	52,644	41,757	9,139	233,594
1995	54,552	13,627	25,411	40,925	15,514	18,733	193,209	181,160	68,035	54,474	42,950	9,808	238,744
1996	55,287	13,409	25,614	41,878	16,264	19,095	197,405	184,864	68,776	56,111	43,947	10,237	243,216
1997	55,069	13,055	25,610	42,014	16,404	19,060	200,218	187,569	68,665	57,819	45,104	10,541	245,717
1998	54,437	12,554	25,127	41,883	16,756	18,850	202,256	189,425	67,673	59,693	46,245	10,829	246,898
1999	53,716	12,125	24,570	41,591	17,021	18,822	203,266	190,173	66,166	61,532	46,689	11,090	246,925
2000	52,979	11,832	24,040	41,147	17,107	18,734	204,133	190,641	64,454	63,205	47,358	11,612	246,730
2001	52,202	11,422	23,823	40,780	16,957	18,739	205,115	191,344	62,812	64,800	48,268	12,242	246,821
2002	50,662	10,985	23,282	39,677	16,395	19,464	206,729	193,392	61,266	66,878	49,143	12,837	247,413
2003	49,545	10,826	22,453	38,719	16,266	20,040	208,757	195,852	59,851	69,308	49,924	13,320	248,668
2004	48,438	10,669	21,700	37,769	16,069	19,911	209,467	196,849	58,245	71,142	50,673	13,804	248,409
2005	48,364	10,665	21,256	37,699	16,443	20,175	213,276	200,282	58,183	73,623	51,364	14,155	251,709
2006	48,268	10,724	21,051	37,544	16,493	20,224	217,576	204,217	58,096	76,867	52,209	14,520	255,664
2007	48,719	11,044	21,167	37,675	16,508	21,484	224,541	210,721	59,492	79,995	53,198	15,115	262,888
2008	48,980	11,395	21,280	37,585	16,305	22,920	230,514	216,748	60,815	82,209	54,406	15,690	269,330
2009	48,525	11,666	20,902	36,859	15,947	23,498	233,647	220,361	61,098	83,433	55,805	16,244	272,380
2010	48,066	12,030	20,593	36,036	15,432	23,923	236,445	223,566	61,668	84,333	57,126	16,742	275,124
2011	47,964	12,422	20,430	35,542	15,099	23,881	239,229	226,705	62,624	84,806	58,584	17,277	277,864
2012	47,999	12,845	20,274	35,154	14,868	23,755	241,875	229,561	63,814	84,488	60,629	17,818	280,689
2013	48,143	13,165	20,319	34,978	14,650	23,410	244,318	232,265	65,284	84,110	62,524	18,228	283,480
2014	48,293	13,360	20,572	34,933	14,352	22,948	246,776	234,892	66,737	84,154	64,186	18,586	286,325
2015	48,654	13,553	20,996	35,101	14,099	22,366	249,255	237,642	68,043	84,221	65,998	18,920	289,296
2016	49,169	13,747	21,428	35,422	13,992	21,796	251,729	240,258	69,248	84,355	67,731	19,244	292,311
2017	49,678	13,928	21,871	35,750	13,879	21,219	254,086	242,751	70,626	84,343	69,466	19,634	295,336
2018	50,284	14,093	22,430	36,191	13,759	20,902	256,360	245,160	71,707	84,065	71,343	20,040	298,313
2019	50,914	14,230	22,998	36,684	13,684	20,625	258,638	247,492	72,752	83,769	73,189	20,422	301,260
2020	51,659	14,345	23,568	37,314	13,745	20,304	260,821	249,783	73,764	83,268	75,189	20,806	304,195
2021	52,387	14,423	24,039	37,964	13,925	19,949	263,017	251,955	74,839	82,940	77,000	21,307	307,120
2022	53,088	14,470	24,357	38,618	14,262	19,793	265,187	254,095	75,555	82,577	78,978	21,795	309,995
2023	53,852	14,495	24,653	39,357	14,706	19,680	267,457	256,206	76,205	82,207	80,860	22,418	312,808
2024	54,580	14,495	24,911	40,085	15,175	19,563	269,856	258,209	76,835	81,988	82,595	22,993	315,558
2025	55,260	14,475	25,138	40,785	15,647	19,531	272,263	260,198	77,294	81,770	84,413	23,543	318,265
2026	55,797	14,441	25,362	41,356	15,993	19,661	274,620	262,139	77,662	81,725	86,049	24,182	320,895
2027	56,120	14,374	25,521	41,746	16,225	20,063	277,018	264,214	77,834	81,767	87,685	25,302	323,465
2028	56,382	14,310	25,629	42,072	16,443	20,485	279,390	266,407	77,961	81,810	89,340	26,317	325,970
2029	56,592	14,248	25,689	42,344	16,652	20,901	281,730	268,575	77,958	82,198	90,751	27,146	328,403
2030	56,728	14,181	25,696	42,547	16,849	21,410	284,066	270,736	77,739	83,039	91,825	28,082	330,754
2031	56,831	14,119	25,694	42,712	17,018	21,938	286,366	272,868	77,367	84,230	92,647	28,931	333,016
2032	56,871	14,068	25,653	42,803	17,150	22,469	288,588	274,934	77,016	85,588	93,227	29,716	335,169
2033	56,895	14,040	25,592	42,855	17,265	22,902	290,744	276,971	76,655	87,217	93,600	30,569	337,258
2034	56,879	14,036	25,501	42,843	17,343	23,201	292,821	278,952	76,302	88,789	94,106	31,397	339,273
2035	56,860	14,049	25,417	42,811	17,392	23,483	294,846	280,903	75,968	90,206	94,718	32,314	341,243
2036	56,839	14,085	25,325	42,754	17,430	23,727	296,803	282,806	75,820	91,451	95,293	33,057	343,137

Prepared by: Demographic Analysis, BC STATS
Ministry of Citizens' Services
Government of the Province of British Columbia
Using P.E.O.P.L.E. Projection Model, Projection 34

Date run: July 22, 2009.
Prepared for: Ministry of Citizens' Services
Enquiries: Demographic Analysis, BC STATS
Ministry of Citizens' Services, (250) 387-0327

Note: All figures as of July 1. Figures for the period 2009-2036 are projected

Population Projections for Special Regions
Region 300: Fortis BC - Total, 1986 - 2036

Year	Sex	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+	Total
1986	Male	1,201	4,983	6,188	6,263	7,027	6,295	6,478	6,783	6,824	5,502	4,846	4,675	5,067	5,152	4,897	4,420	2,883	1,644	630	247	92,005
	Female	1,138	4,669	5,729	6,000	6,413	6,079	6,526	7,125	6,802	5,504	4,885	4,769	5,415	5,957	5,736	4,834	3,184	1,840	898	487	93,990
	Total	2,339	9,652	11,917	12,263	13,440	12,374	13,004	13,908	13,626	11,006	9,731	9,444	10,482	11,109	10,633	9,254	6,067	3,484	1,528	734	185,995
1987	Male	1,108	4,965	6,267	6,240	6,794	6,051	6,442	6,785	6,763	5,860	4,913	4,707	5,121	5,179	5,048	4,418	3,016	1,731	705	255	92,368
	Female	1,055	4,678	5,857	5,908	6,327	5,838	6,412	7,136	6,868	5,834	4,995	4,792	5,293	5,864	5,914	4,998	3,331	1,994	932	460	94,486
	Total	2,163	9,643	12,124	12,148	13,121	11,889	12,854	13,921	13,631	11,694	9,908	9,499	10,414	11,043	10,962	9,416	6,347	3,725	1,637	715	186,854
1988	Male	1,083	4,964	6,405	6,260	6,620	5,843	6,359	6,898	6,928	6,213	5,075	4,815	5,137	5,306	5,244	4,374	3,168	1,793	766	259	93,510
	Female	1,024	4,742	5,941	5,885	6,300	5,553	6,452	7,248	7,020	6,115	5,219	4,812	5,308	5,892	6,077	5,055	3,544	2,099	999	501	95,786
	Total	2,107	9,706	12,346	12,145	12,920	11,396	12,811	14,146	13,948	12,328	10,294	9,627	10,445	11,198	11,321	9,429	6,712	3,892	1,765	760	189,296
1989	Male	1,119	4,948	6,659	6,426	6,585	5,687	6,456	7,112	7,198	6,586	5,355	4,958	5,151	5,448	5,417	4,367	3,299	1,905	813	259	95,748
	Female	1,064	4,721	6,208	6,017	6,270	5,380	6,650	7,348	7,322	6,481	5,452	4,959	5,287	5,943	6,230	5,134	3,837	2,187	1,142	485	98,117
	Total	2,183	9,669	12,867	12,443	12,855	11,067	13,106	14,460	14,520	13,067	10,807	9,917	10,438	11,391	11,647	9,501	7,136	4,092	1,955	744	193,865
1990	Male	1,261	5,028	7,024	6,641	6,824	5,744	6,505	7,419	7,522	7,147	5,572	5,082	5,285	5,616	5,608	4,509	3,490	1,978	860	299	99,414
	Female	1,150	4,849	6,626	6,227	6,467	5,330	6,771	7,625	7,719	7,096	5,672	5,180	5,335	6,064	6,312	5,309	4,081	2,336	1,200	531	101,880
	Total	2,411	9,877	13,650	12,868	13,291	11,074	13,276	15,044	15,241	14,243	11,244	10,262	10,620	11,680	11,920	9,818	7,571	4,314	2,060	830	201,294
1991	Male	1,257	5,185	7,249	6,929	6,867	5,857	6,380	7,851	8,012	7,646	5,971	5,184	5,356	5,880	5,711	4,661	3,687	2,019	931	341	102,974
	Female	1,186	4,954	6,915	6,517	6,458	5,385	6,580	7,963	8,120	7,637	5,951	5,417	5,461	6,112	6,399	5,509	4,270	2,514	1,241	614	105,203
	Total	2,443	10,139	14,164	13,446	13,325	11,242	12,960	15,814	16,132	15,283	11,922	10,601	10,817	11,992	12,110	10,170	7,957	4,533	2,172	955	208,177
1992	Male	1,334	5,572	7,470	7,329	6,981	6,247	6,353	8,131	8,429	8,003	6,627	5,428	5,473	6,044	5,921	4,898	3,717	2,115	965	345	107,382
	Female	1,244	5,296	7,147	6,901	6,488	5,883	6,559	8,280	8,708	8,026	6,563	5,756	5,649	6,118	6,600	5,790	4,422	2,626	1,296	627	109,979
	Total	2,578	10,868	14,617	14,230	13,469	12,130	12,912	16,411	17,137	16,029	13,190	11,184	11,122	12,162	12,521	10,688	8,139	4,741	2,261	972	217,361
1993	Male	1,244	5,753	7,649	7,796	7,126	6,605	6,457	8,294	8,899	8,418	7,211	5,758	5,719	6,130	6,045	5,138	3,693	2,250	993	389	111,567
	Female	1,252	5,450	7,393	7,231	6,576	6,269	6,508	8,594	9,217	8,408	7,140	6,149	5,852	6,296	6,577	5,991	4,593	2,837	1,376	692	114,401
	Total	2,496	11,203	15,042	15,027	13,702	12,874	12,965	16,888	18,116	16,826	14,351	11,907	11,571	12,426	12,622	11,129	8,286	5,087	2,369	1,081	225,968
1994	Male	1,306	5,765	7,821	8,166	7,422	6,708	6,557	8,469	9,266	8,873	7,724	6,145	5,924	6,222	6,119	5,370	3,685	2,369	1,053	392	115,356
	Female	1,236	5,502	7,507	7,657	6,851	6,366	6,508	8,848	9,501	8,864	7,679	6,527	6,120	6,303	6,645	6,187	4,612	3,123	1,444	758	118,238
	Total	2,542	11,267	15,328	15,823	14,273	13,074	13,065	17,317	18,767	17,737	15,403	12,672	12,044	12,525	12,764	11,557	8,297	5,492	2,497	1,150	233,594
1995	Male	1,270	5,672	7,904	8,463	7,681	6,665	6,676	8,438	9,495	9,202	8,279	6,325	6,028	6,288	6,290	5,379	3,792	2,535	1,142	416	117,940
	Female	1,239	5,446	7,587	7,954	7,125	6,279	6,499	8,779	9,735	9,211	8,216	6,756	6,283	6,299	6,636	6,272	4,773	3,337	1,559	819	120,804
	Total	2,509	11,118	15,491	16,417	14,806	12,944	13,175	17,217	19,230	18,413	16,495	13,081	12,311	12,587	12,926	11,651	8,565	5,872	2,701	1,235	238,744
1996	Male	1,303	5,508	7,923	8,669	8,087	6,695	6,758	8,136	9,661	9,496	8,658	6,653	6,033	6,307	6,378	5,431	3,940	2,606	1,177	443	119,862
	Female	1,217	5,381	7,567	8,243	7,457	6,332	6,661	8,610	9,941	9,513	8,641	6,973	6,469	6,377	6,641	6,346	4,974	3,510	1,706	795	123,354
	Total	2,520	10,889	15,490	16,912	15,544	13,027	13,419	16,746	19,602	19,009	17,299	13,626	12,502	12,684	13,019	11,777	8,914	6,116	2,883	1,238	243,216
1997	Male	1,228	5,423	7,935	8,687	8,022	6,737	6,732	7,806	9,664	9,779	8,806	7,277	6,142	6,267	6,597	5,530	4,127	2,646	1,156	452	121,013
	Female	1,147	5,257	7,573	8,249	7,480	6,391	6,600	8,232	9,964	9,888	8,836	7,459	6,667	6,365	6,687	6,388	5,234	3,622	1,829	836	124,704
	Total	2,375	10,680	15,508	16,936	15,502	13,128	13,332	16,038	19,628	19,667	17,642	14,736	12,809	12,632	13,284	11,918	9,361	6,268	2,985	1,288	245,717
1998	Male	1,127	5,302	7,903	8,602	8,184	6,629	6,633	7,268	9,476	9,869	9,083	7,730	6,326	6,339	6,621	5,683	4,299	2,623	1,217	471	121,385
	Female	1,070	5,055	7,419	8,164	7,517	6,315	6,546	7,733	9,957	10,191	9,004	7,851	6,919	6,441	6,867	6,464	5,482	3,750	1,912	856	125,513
	Total	2,197	10,357	15,322	16,766	15,701	12,944	13,179	15,001	19,433	20,060	18,087	15,581	13,245	12,780	13,488	12,147	9,781	6,373	3,129	1,327	246,898
1999	Male	1,113	5,110	7,718	8,507	8,297	6,582	6,338	6,915	9,265	9,853	9,319	8,041	6,537	6,375	6,592	5,802	4,460	2,627	1,264	475	121,190
	Female	1,050	4,852	7,263	8,046	7,697	6,303	6,393	7,226	9,920	10,256	9,342	8,202	7,179	6,537	6,680	6,440	5,625	3,769	2,058	897	125,735
	Total	2,163	9,962	14,981	16,553	15,994	12,885	12,731	14,141	19,185	20,109	18,661	16,243	13,716	12,912	13,272	12,242	10,085	6,396	3,322	1,372	246,925
2000	Male	1,161	4,941	7,381	8,381	8,510	6,515	6,097	6,721	8,782	9,827	9,423	8,500	6,653	6,432	6,620	5,977	4,484	2,686	1,389	491	120,971
	Female	1,057	4,673	7,062	7,941	7,936	6,155	6,160	6,946	9,620	10,301	9,564	8,659	7,332	6,642	6,569	6,443	5,653	3,859	2,233	954	125,759
	Total	2,218	9,614	14,443	16,322	16,446	12,670	12,257	13,667	18,402	20,128	18,987	17,159	13,985	13,074	13,189	12,420	10,137	6,545	3,622	1,445	246,730

Population Projections for Special Regions
Region 300: Fortis BC - Total, 1986 - 2036

Year	Sex	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+	Total
2001	Male	1,062	4,813	7,231	8,300	8,635	6,486	5,850	6,627	8,248	9,845	9,485	8,774	6,978	6,411	6,651	6,168	4,540	2,814	1,488	516	120,922
	Female	1,020	4,527	6,928	7,825	8,153	5,961	5,912	6,873	9,181	10,276	9,783	8,969	7,500	6,900	6,545	6,422	5,700	4,039	2,335	1,050	125,899
	Total	2,082	9,340	14,159	16,125	16,788	12,447	11,762	13,500	17,429	20,121	19,268	17,743	14,478	13,311	13,196	12,590	10,240	6,853	3,823	1,566	246,821
2002	Male	1,067	4,600	6,961	8,301	8,486	6,650	5,755	6,587	7,855	9,682	9,666	8,889	7,581	6,492	6,579	6,282	4,684	2,981	1,498	548	121,144
	Female	941	4,377	6,663	7,774	8,048	6,258	5,819	6,748	8,594	10,226	10,062	9,104	7,982	7,102	6,641	6,397	5,723	4,217	2,437	1,156	126,269
	Total	2,008	8,977	13,624	16,075	16,534	12,908	11,574	13,335	16,449	19,908	19,728	17,993	15,563	13,594	13,220	12,679	10,407	7,198	3,935	1,704	247,413
2003	Male	1,011	4,574	6,671	8,285	8,327	7,003	5,695	6,558	7,364	9,593	9,817	9,126	8,098	6,743	6,640	6,278	4,822	3,139	1,492	597	121,833
	Female	984	4,257	6,462	7,667	7,845	6,499	5,779	6,680	7,986	10,196	10,391	9,297	8,403	7,433	6,733	6,422	5,709	4,347	2,498	1,247	126,835
	Total	1,995	8,831	13,133	15,952	16,172	13,502	11,474	13,238	15,350	19,789	20,208	18,423	16,501	14,176	13,373	12,700	10,531	7,486	3,990	1,844	248,668
2004	Male	1,034	4,478	6,510	8,018	8,142	6,996	5,726	6,362	7,008	9,357	9,886	9,387	8,414	7,025	6,733	6,283	4,874	3,308	1,512	671	121,724
	Female	962	4,195	6,245	7,500	7,594	6,675	5,689	6,528	7,469	10,106	10,401	9,552	8,793	7,684	6,837	6,401	5,741	4,456	2,536	1,321	126,685
	Total	1,996	8,673	12,755	15,518	15,736	13,671	11,415	12,890	14,477	19,463	20,287	18,939	17,207	14,709	13,570	12,684	10,615	7,764	4,048	1,992	248,409
2005	Male	1,026	4,466	6,468	7,738	8,414	7,212	5,985	6,352	7,067	9,124	10,035	9,647	8,957	7,265	6,836	6,351	4,959	3,356	1,579	703	123,540
	Female	986	4,187	6,144	7,418	7,696	6,784	5,880	6,456	7,379	9,940	10,550	9,922	9,323	7,924	6,957	6,371	5,735	4,501	2,602	1,414	128,169
	Total	2,012	8,653	12,612	15,156	16,110	13,996	11,865	12,808	14,446	19,064	20,585	19,569	18,280	15,189	13,793	12,722	10,694	7,857	4,181	2,117	251,709
2006	Male	1,036	4,490	6,321	7,583	8,619	7,214	6,119	6,287	7,208	8,921	10,237	9,964	9,442	7,860	6,927	6,345	5,108	3,436	1,687	728	125,532
	Female	1,029	4,169	6,052	7,408	7,809	6,762	6,051	6,402	7,372	9,736	10,790	10,352	9,931	8,291	7,243	6,355	5,711	4,501	2,696	1,472	130,132
	Total	2,065	8,659	12,373	14,991	16,428	13,976	12,170	12,689	14,580	18,657	21,027	20,316	19,373	16,151	14,170	12,700	10,819	7,937	4,383	2,200	255,664
2007	Male	1,046	4,525	6,434	7,558	8,887	7,655	6,518	6,496	7,581	8,818	10,468	10,377	9,649	8,499	7,014	6,206	5,353	3,497	1,812	755	129,148
	Female	1,090	4,383	6,015	7,296	8,215	7,099	6,303	6,726	7,550	9,500	10,977	10,937	10,100	8,988	7,491	6,369	5,650	4,599	2,905	1,547	133,740
	Total	2,136	8,908	12,449	14,854	17,102	14,754	12,821	13,222	15,131	18,318	21,445	21,314	19,749	17,487	14,505	12,575	11,003	8,096	4,717	2,302	262,888
2008	Male	1,176	4,551	6,491	7,533	9,017	8,222	7,036	6,674	7,875	8,476	10,598	10,652	9,908	8,971	7,202	6,291	5,344	3,644	1,935	784	132,380
	Female	1,133	4,535	6,162	7,235	8,327	7,518	6,700	7,074	7,860	9,120	11,175	11,226	10,301	9,378	7,794	6,420	5,665	4,625	3,050	1,652	136,950
	Total	2,309	9,086	12,653	14,768	17,344	15,740	13,736	13,748	15,735	17,596	21,773	21,878	20,209	18,349	14,996	12,711	11,009	8,269	4,985	2,436	269,330
2009	Male	1,267	4,583	6,438	7,434	8,701	8,571	7,274	6,899	7,887	8,252	10,512	10,791	10,136	9,217	7,436	6,396	5,386	3,720	2,067	845	133,826
	Female	1,208	4,608	6,084	7,091	8,178	7,861	6,996	7,127	7,898	8,765	11,208	11,297	10,515	9,757	8,084	6,551	5,708	4,681	3,158	1,773	138,554
	Total	2,475	9,191	12,522	14,525	16,879	16,432	14,270	14,026	15,785	17,017	21,720	22,088	20,651	18,974	15,520	12,947	11,094	8,401	5,225	2,618	272,380
2010	Male	1,279	4,770	6,322	7,357	8,329	8,821	7,537	7,123	7,796	8,306	10,213	10,858	10,315	9,637	7,617	6,474	5,481	3,817	2,114	949	135,114
	Female	1,222	4,759	6,032	6,936	8,013	8,155	7,242	7,268	7,802	8,594	10,983	11,351	10,813	10,163	8,360	6,716	5,736	4,722	3,208	1,932	140,010
	Total	2,501	9,529	12,354	14,293	16,342	16,976	14,779	14,391	15,598	16,900	21,196	22,209	21,128	19,800	15,977	13,190	11,217	8,539	5,322	2,881	275,124
2011	Male	1,300	4,993	6,237	7,166	8,118	8,911	7,883	7,373	7,634	8,446	9,902	10,972	10,429	9,883	7,933	6,546	5,487	3,988	2,143	1,056	136,397
	Female	1,238	4,891	5,993	6,818	7,879	8,307	7,501	7,434	7,778	8,575	10,644	11,442	11,036	10,498	8,535	7,042	5,764	4,754	3,252	2,084	141,467
	Total	2,538	9,884	12,230	13,984	15,997	17,218	15,384	14,807	15,412	17,021	20,546	22,414	21,465	20,381	16,468	13,588	11,251	8,742	5,395	3,140	277,864
2012	Male	1,319	5,253	6,139	7,070	7,886	8,962	8,187	7,579	7,584	8,590	9,570	10,965	10,659	9,857	8,483	6,650	5,458	4,196	2,182	1,140	137,724
	Female	1,256	5,017	6,110	6,652	7,611	8,485	7,758	7,550	7,986	8,580	10,157	11,439	11,380	10,461	9,110	7,265	5,845	4,768	3,314	2,218	142,965
	Total	2,575	10,270	12,249	13,722	15,497	17,447	15,945	15,129	15,570	17,170	19,727	22,404	22,039	20,318	17,593	13,915	11,303	8,964	5,496	3,358	280,689
2013	Male	1,334	5,403	6,225	6,950	7,727	8,863	8,502	7,832	7,626	8,725	9,090	10,943	10,828	9,993	8,883	6,837	5,572	4,211	2,279	1,210	139,036
	Female	1,272	5,156	6,175	6,644	7,442	8,368	8,064	7,707	8,138	8,690	9,619	11,504	11,576	10,557	9,462	7,594	5,948	4,840	3,347	2,341	144,444
	Total	2,606	10,559	12,400	13,594	15,169	17,231	16,566	15,539	15,764	17,415	18,709	22,447	22,404	20,550	18,345	14,431	11,520	9,051	5,626	3,551	283,480
2014	Male	1,356	5,475	6,374	6,915	7,633	8,551	8,817	8,060	7,827	8,730	8,861	10,872	10,972	10,216	9,122	7,048	5,671	4,249	2,337	1,287	140,372
	Female	1,295	5,234	6,335	6,561	7,306	8,209	8,387	7,995	8,181	8,740	9,261	11,545	11,653	10,774	9,836	7,863	6,060	4,881	3,395	2,437	145,953
	Total	2,651	10,709	12,709	13,476	14,939	16,760	17,204	16,055	16,008	17,470	18,122	22,417	22,625	20,990	18,958	14,911	11,731	9,130	5,732	3,724	286,325
2015	Male	1,377	5,552	6,600	6,822	7,574	8,195	9,062	8,330	8,067	8,660	8,930	10,593	11,051	10,396	9,529	7,212	5,745	4,315	2,410	1,337	141,769
	Female	1,312	5,312	6,532	6,526	7,168	8,056	8,662	8,256	8,341	8,665	9,112	11,331	11,724	11,084	10,245	8,132	6,215	4,908	3,432	2,518	147,527
	Total	2,689	10,864	13,132	13,348	14,742	16,251	17,724	16,586	16,408	17,325	18,042	21,924	22,775	21,480	19,774	15,344	11,960	9,223	5,842	3,855	289,296

Population Projections for Special Regions
Region 300: Fortis BC - Total, 1986 - 2036

Year	Sex	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+	Total
2016	Male	1,396	5,630	6,862	6,759	7,406	8,000	9,158	8,691	8,331	8,513	9,082	10,309	11,180	10,523	9,766	7,507	5,815	4,332	2,533	1,399	143,198
	Female	1,332	5,389	6,703	6,508	7,047	7,942	8,831	8,527	8,529	8,668	9,117	11,010	11,824	11,310	10,571	8,311	6,517	4,929	3,459	2,592	149,113
	Total	2,728	11,019	13,565	13,267	14,453	15,942	17,989	17,218	16,860	17,181	18,199	21,319	23,004	21,833	20,337	15,818	12,332	9,261	5,992	3,991	292,311
2017	Male	1,411	5,706	7,154	6,679	7,312	7,777	9,212	9,006	8,553	8,487	9,240	9,992	11,191	10,757	9,759	8,019	5,917	4,322	2,678	1,460	144,628
	Female	1,344	5,467	6,865	6,633	6,885	7,677	9,016	8,787	8,673	8,892	9,143	10,541	11,827	11,652	10,544	8,863	6,730	5,001	3,488	2,685	150,708
	Total	2,755	11,173	14,019	13,312	14,197	15,454	18,228	17,793	17,226	17,379	18,383	20,533	23,018	22,409	20,303	16,882	12,647	9,323	6,166	4,145	295,336
2018	Male	1,415	5,786	7,324	6,779	7,215	7,632	9,119	9,329	8,823	8,541	9,389	9,524	11,179	10,930	9,895	8,408	6,091	4,416	2,689	1,544	146,026
	Female	1,351	5,541	7,041	6,714	6,884	7,514	8,885	9,098	8,849	9,063	9,263	10,026	11,900	11,854	10,654	9,222	7,033	5,100	3,543	2,748	152,287
	Total	2,766	11,327	14,365	13,493	14,099	15,146	18,004	18,427	17,672	17,604	18,652	19,550	23,079	22,784	20,549	17,630	13,124	9,516	6,232	4,292	298,313
2019	Male	1,421	5,850	7,423	6,940	7,190	7,547	8,828	9,659	9,064	8,754	9,400	9,305	11,112	11,079	10,116	8,629	6,284	4,495	2,705	1,608	147,404
	Female	1,360	5,599	7,141	6,888	6,807	7,384	8,756	9,419	9,152	9,120	9,325	9,673	11,947	11,928	10,862	9,590	7,286	5,211	3,584	2,819	153,856
	Total	2,781	11,449	14,564	13,828	13,997	14,931	17,584	19,078	18,216	17,874	18,725	18,978	23,059	23,007	20,978	18,219	13,570	9,706	6,289	4,427	301,260
2020	Male	1,432	5,902	7,520	7,177	7,103	7,483	8,488	9,900	9,345	8,996	9,345	9,376	10,843	11,170	10,282	9,009	6,428	4,559	2,751	1,668	148,781
	Female	1,364	5,647	7,239	7,088	6,771	7,243	8,615	9,715	9,423	9,282	9,264	9,540	11,739	11,991	11,157	9,969	7,538	5,343	3,616	2,869	155,414
	Total	2,796	11,549	14,759	14,265	13,874	14,726	17,103	19,615	18,768	18,278	18,609	18,916	22,582	23,161	21,439	18,978	13,966	9,902	6,367	4,537	304,195
2021	Male	1,438	5,937	7,623	7,448	7,042	7,314	8,293	9,993	9,727	9,263	9,209	9,536	10,566	11,301	10,406	9,242	6,685	4,610	2,773	1,752	150,155
	Female	1,372	5,676	7,337	7,270	6,758	7,124	8,517	9,866	9,702	9,478	9,272	9,543	11,425	12,088	11,372	10,278	7,710	5,607	3,638	2,927	156,965
	Total	2,810	11,613	14,960	14,718	13,800	14,438	16,810	19,859	19,429	18,741	18,481	19,079	21,991	23,389	21,778	19,520	14,395	10,217	6,411	4,679	307,120
2022	Male	1,436	5,963	7,720	7,744	6,974	7,239	8,085	10,044	10,045	9,481	9,181	9,691	10,260	11,308	10,625	9,236	7,145	4,698	2,772	1,852	151,506
	Female	1,369	5,702	7,423	7,444	6,890	6,974	8,273	10,044	9,960	9,623	9,503	9,577	10,958	12,099	11,700	10,255	8,222	5,793	3,701	2,979	158,489
	Total	2,805	11,665	15,143	15,188	13,864	14,213	16,358	20,088	20,005	19,104	18,684	19,268	21,218	23,407	22,325	19,491	15,367	10,491	6,473	4,831	309,995
2023	Male	1,428	5,983	7,808	7,926	7,084	7,146	7,947	9,962	10,377	9,764	9,236	9,844	9,809	11,302	10,801	9,367	7,480	4,835	2,835	1,893	152,825
	Female	1,366	5,718	7,508	7,613	6,976	6,979	8,123	9,953	10,272	9,807	9,681	9,703	10,453	12,179	11,895	10,349	8,550	6,057	3,778	3,020	159,983
	Total	2,794	11,701	15,316	15,539	14,060	14,125	16,070	19,915	20,649	19,571	18,917	19,547	20,262	23,481	22,696	19,716	16,030	10,892	6,613	4,913	312,808
2024	Male	1,422	5,991	7,876	8,039	7,250	7,131	7,874	9,678	10,707	10,009	9,458	9,859	9,597	11,236	10,943	9,566	7,681	4,996	2,886	1,916	154,111
	Female	1,358	5,724	7,573	7,723	7,146	6,911	8,020	9,826	10,604	10,117	9,736	9,765	10,113	12,224	11,976	10,549	8,887	6,275	3,858	3,062	161,447
	Total	2,780	11,715	15,449	15,762	14,396	14,042	15,894	19,504	21,311	20,126	19,194	19,624	19,710	23,460	22,919	20,115	16,568	11,271	6,744	4,978	315,558
2025	Male	1,419	5,985	7,934	8,144	7,493	7,059	7,826	9,344	10,947	10,297	9,704	9,806	9,679	10,976	11,026	9,724	8,015	5,121	2,930	1,952	155,377
	Female	1,353	5,718	7,626	7,827	7,345	6,889	7,893	9,696	10,896	10,395	9,896	9,704	9,980	12,025	12,033	10,838	9,234	6,488	3,957	3,095	162,888
	Total	2,772	11,703	15,560	15,971	14,838	13,948	15,719	19,040	21,843	20,692	19,600	19,510	19,659	23,001	23,059	20,562	17,249	11,609	6,887	5,047	318,265
2026	Male	1,415	5,975	7,986	8,251	7,758	7,017	7,674	9,156	11,031	10,681	9,980	9,675	9,848	10,712	11,142	9,836	8,206	5,325	2,965	1,976	156,607
	Female	1,350	5,701	7,667	7,930	7,533	6,876	7,788	9,612	11,040	10,680	10,090	9,716	9,987	11,717	12,131	11,041	9,511	6,647	4,154	3,115	164,288
	Total	2,765	11,676	15,653	16,181	15,291	13,893	15,462	18,768	22,071	21,361	20,070	19,391	19,835	22,429	23,273	20,877	17,717	11,972	7,119	5,091	320,895
2027	Male	1,404	5,950	8,012	8,349	8,050	6,967	7,595	8,952	11,089	11,005	10,202	9,648	10,017	10,428	11,153	10,038	8,205	5,697	3,020	2,032	157,812
	Female	1,339	5,681	7,691	8,024	7,710	7,005	7,639	9,389	11,218	10,947	10,236	9,958	10,014	11,264	12,142	11,359	9,486	7,096	4,288	3,169	165,653
	Total	2,743	11,631	15,703	16,373	15,760	13,972	15,234	18,341	22,307	21,952	20,438	19,606	20,031	21,692	23,295	21,397	17,691	12,793	7,308	5,201	323,465
2028	Male	1,398	5,920	8,026	8,439	8,236	7,072	7,509	8,818	11,012	11,346	10,483	9,704	10,170	9,992	11,150	10,208	8,320	5,984	3,123	2,086	158,992
	Female	1,334	5,658	7,705	8,105	7,878	7,093	7,647	9,239	11,120	11,270	10,431	10,135	10,135	10,760	12,227	11,543	9,575	7,379	4,501	3,244	166,978
	Total	2,732	11,578	15,731	16,544	16,114	14,165	15,156	18,057	22,132	22,616	20,914	19,839	20,305	20,752	23,377	21,751	17,895	13,363	7,624	5,330	325,970
2029	Male	1,390	5,896	8,031	8,509	8,351	7,227	7,499	8,753	10,718	11,684	10,723	9,931	10,186	9,798	11,098	10,333	8,505	6,135	3,248	2,116	160,135
	Female	1,327	5,635	7,702	8,176	7,989	7,256	7,577	9,142	10,982	11,603	10,742	10,191	10,198	10,429	12,277	11,622	9,770	7,661	4,671	3,315	168,268
	Total	2,717	11,531	15,733	16,685	16,340	14,483	15,076	17,895	21,700	23,287	21,465	20,122	20,384	20,227	23,375	21,955	18,275	13,796	7,919	5,431	328,403
2030	Male	1,387	5,864	8,011	8,564	8,462	7,454	7,432	8,713	10,376	11,923	11,008	10,180	10,129	9,887	10,859	10,414	8,659	6,403	3,334	2,174	161,241
	Female	1,322	5,608	7,689	8,228	8,095	7,452	7,544	9,014	10,844	11,893	11,026	10,360	10,147	10,302	12,082	11,686	10,043	7,958	4,824	3,389	169,513
	Total	2,709	11,472	15,700	16,792	16,557	14,906	14,976	17,727	21,220	23,816	22,034	20,540	20,276	20,189	22,941	22,100	18,702	14,361	8,158	5,563	330,754

**Population Projections for Special Regions
Region 300: Fortis BC - Total, 1986 - 2036**

Year	Sex	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+	Total
2031	Male	1,382	5,838	7,990	8,605	8,571	7,712	7,391	8,563	10,179	12,006	11,398	10,455	9,999	10,052	10,611	10,523	8,770	6,561	3,478	2,222	162,309
	Female	1,319	5,580	7,668	8,262	8,199	7,640	7,533	8,914	10,751	12,030	11,311	10,549	10,161	10,305	11,790	11,783	10,239	8,194	4,951	3,525	170,707
	Total	2,701	11,418	15,658	16,867	16,770	15,352	14,924	17,477	20,930	24,036	22,709	21,004	20,160	20,357	22,401	22,306	19,009	14,755	8,429	5,747	333,016
2032	Male	1,381	5,815	7,963	8,628	8,671	7,989	7,344	8,495	9,966	12,058	11,724	10,664	9,971	10,220	10,343	10,533	8,960	6,575	3,748	2,279	163,333
	Female	1,316	5,556	7,637	8,282	8,293	7,804	7,663	8,767	10,521	12,202	11,582	10,697	10,395	10,335	11,345	11,802	10,528	8,182	5,300	3,632	171,836
	Total	2,697	11,371	15,600	16,910	16,964	15,793	15,007	17,262	20,487	24,260	23,306	21,361	20,366	20,555	21,688	22,335	19,488	14,757	9,048	5,911	335,169
2033	Male	1,385	5,797	7,927	8,648	8,762	8,174	7,439	8,405	9,833	11,983	12,061	10,938	10,028	10,371	9,931	10,544	9,122	6,682	3,938	2,358	164,324
	Female	1,320	5,538	7,608	8,297	8,372	7,964	7,750	8,778	10,371	12,096	11,909	10,888	10,568	10,454	10,860	11,877	10,697	8,272	5,522	3,797	172,934
	Total	2,705	11,335	15,535	16,945	17,134	16,138	15,189	17,183	20,204	24,079	23,970	21,826	20,596	20,825	20,791	22,421	19,819	14,954	9,460	6,155	337,258
2034	Male	1,384	5,796	7,889	8,652	8,827	8,288	7,594	8,394	9,763	11,695	12,399	11,177	10,249	10,383	9,753	10,504	9,228	6,828	4,029	2,443	165,281
	Female	1,324	5,532	7,579	8,296	8,440	8,069	7,918	8,714	10,268	11,956	12,244	11,199	10,625	10,513	10,536	11,920	10,768	8,443	5,728	3,926	173,992
	Total	2,708	11,328	15,468	16,948	17,267	16,357	15,512	17,108	20,031	23,651	24,643	22,376	20,874	20,896	20,289	22,424	19,996	15,271	9,757	6,369	339,273
2035	Male	1,391	5,794	7,856	8,641	8,887	8,398	7,818	8,327	9,721	11,347	12,644	11,469	10,492	10,328	9,843	10,286	9,310	6,963	4,196	2,507	166,225
	Female	1,329	5,535	7,553	8,287	8,495	8,174	8,113	8,689	10,140	11,813	12,540	11,478	10,795	10,460	10,409	11,734	10,822	8,681	5,935	4,032	175,018
	Total	2,720	11,329	15,409	16,928	17,382	16,572	15,931	17,016	19,861	23,160	25,184	22,947	21,287	20,788	20,252	22,020	20,132	15,644	10,131	6,539	341,243
2036	Male	1,399	5,802	7,826	8,622	8,931	8,501	8,080	8,281	9,574	11,149	12,733	11,860	10,754	10,194	10,001	10,056	9,411	7,051	4,295	2,605	167,133
	Female	1,337	5,547	7,522	8,268	8,532	8,275	8,301	8,680	10,042	11,713	12,680	11,768	10,986	10,476	10,411	11,448	10,909	8,847	6,104	4,155	176,004
	Total	2,736	11,349	15,348	16,890	17,463	16,776	16,381	16,961	19,616	22,862	25,413	23,628	21,740	20,670	20,412	21,504	20,320	15,898	10,399	6,760	343,137

Prepared by: Demographic Analysis, BC STATS
Ministry of Citizens' Services
Government of the Province of British Columbia
Using P.E.O.P.L.E. Projection Model, Projection 34

Date run: July 22, 2009.
Prepared for: Ministry of Citizens' Services
Enquiries: Demographic Analysis, BC STATS
Ministry of Citizens' Services, (250) 387-0327

Note: All figures as of July 1. Figures for the period 2009-2036 are projected

ENERGY MARKET REPORT

by **Ehud Abadi & Robert Mullin****daily**

Monday, August 10, 2009

Vol. 15, No. 151

Western Pre-Scheduled Firm Power Price Ranges

Prices for 8/11/2009	Peak				Off-Peak			
	Low		High		Low		High	
	\$/MWh	Change	\$/MWh	Change	\$/MWh	Change	\$/MWh	Change
NW/N. Rockies	40.00	1.25	43.00	1.00	31.00	-2.00	32.50	-3.50
Mid-Columbia	40.00	1.25	43.00	1.00	31.00	-2.00	32.50	-3.50
COB	45.00	2.00	46.25	2.25	32.00	-2.50	33.00	-3.50
NP-15 EZ Gen DA LMP	42.25	3.25	43.00	2.40	27.10	-5.40	27.50	-5.50
Midway/Sylmar	NA	NA	NA	NA	NA	NA	NA	NA
SP-15 EZ Gen DA LMP	42.00	3.25	43.25	2.60	24.75	-6.00	25.75	-5.25
Mead	44.00	4.00	44.75	2.75	25.00	-5.75	25.00	-6.00
Palo Verde	36.25	-0.50	43.00	3.00	22.75	-5.25	23.25	-7.25
Inland SW	36.25	-0.50	44.75	2.75	22.75	-5.25	25.00	-6.00
4-Corners	42.00	2.50	44.00	4.00	23.00	-4.50	23.25	-5.25
Central Rockies	42.75	NA	43.00	NA	24.00	0.00	24.00	0.00

EMR Prices include price ranges from various sources, including confidential phone communication, marketer and LSE trade sheets, and prices reported by the Intercontinental Exchange (ICE).

TransCanada to Build New Generation in AZ

On Monday, TransCanada announced that it has begun construction of a new 575 MW natural gas-fired power plant in Coolidge, AZ. The Coolidge Generating Station is expected to be operational by May, 2011, providing support as a peaking facility. SRP has signed a 20-year purchase agreement for 100 percent of the plant's output.

WECC

Trading for pre-schedule power in the western U.S. switched from the Sunday/Monday package back to regular Tuesday deliveries, and prices were mixed. Peak prices across the major hubs added about 1 to 2\$/MWh, while light-load prices shifted down about 3 to 5\$/MWh on the return to nighttime hours. Wherever peak blocks got their strength from this Monday, it wasn't spot gas. Cash hubs in the West all posted losses to start off the week. Most of those were only around 5 cents/mmBtu or smaller, but Rockies prices were down by more like 10 to 15 cents/mmBtu. Looking back at power, the next trading session will be for Wednesday deliveries, and look for temperatures to be warmer at a few of the key load centers. That may be enough to take peak prices up again for that day. Natural gas futures on NYMEX slid just slightly, as September gave up 3.3 cents to settle at 3.641\$/mmBtu, and October lost 2.0 cents to close at 3.919\$/mmBtu.

Northwest

Wholesale power trading was a bit on the slow side at Mid-Columbia in activity for Tuesday blocks. Peak prices added about 2\$/MWh in trades between 40 and 43\$/MWh, while off-peak prices dropped about the same amount on the switch back to nighttime hours. Those blocks sold from 31 to 32.50\$/MWh. In the weather for Wednesday, temperatures are expected to be a bit warmer in the region. Highs for Portland and Seattle should be in the mid-70s, while Spokane sees daytime temperatures hit the lower 80s. Overnight lows for the region should be in the 50s or lower 60s. According to the latest six-to-ten day forecast, temperatures were predicted to be just above their historical averages from August 16 through 20. In unit news, there were no new outages or service disruptions reported on Monday.

California

Peak prices were up, off-peak prices were down, and trading volumes were slightly lower than normal in activity for Tuesday deliveries across California. Peak prices up and down the state added about 2\$/MWh, while off-peak prices shed more like 5\$/MWh, losing value on the switch back to nighttime hours. In spreads, COB heavy loads were bought and sold from 45 to 46.25\$/MWh, while light loads tracked between 32 and 33\$/MWh. At NP-15, peak prices ranged from 42.25 to 43\$/MWh, while off-peak blocks sold narrowly from 27.10 to 27.50\$/MWh. SP-15 heavy loads traded from 42 to 43.25\$/MWh.

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MWh, while light loads sold between 24.75 and 25.75 \$/MWh. In the weather for Wednesday, temperatures are not expected to change much. Highs in Fresno and Sacramento should be around 100 degrees, while L.A. sees daytime temperatures in the mid-80s, and highs in San Francisco top off in the lower 70s. Overnight lows for the state should be in the upper 50s or 60s. According to the latest six-to-ten day forecast, temperatures were predicted to be seasonably warm from August 16 through 20. In unit news, no new outages or service disruptions were reported on Monday.

should keep to their previous ranges, with highs around 105 degrees, and overnight lows in the mid-80s. According to the latest six-to-ten day forecast, temperatures were predicted to be unseasonably cool in New Mexico, Colorado, and Utah, while Nevada and Arizona see normal temperatures from August 16 through 20. In unit news, there were no new outages or service disruptions reported on Monday.

Southwest

Day-ahead power in the Southwest was split just like the rest of the WECC hubs in trading for Tuesday blocks. Palo Verde heavy loads added around 3\$/MWh, selling from 36.25 to 43\$/MWh, while light loads dropped around 6\$/MWh in trades from 22.75 to 23.25\$/MWh. Four Corners peak blocks tracked about 3\$/MWh higher, selling from 42 to 44\$/MWh, while off-peak prices lost about 5\$/MWh, ranging from 23 to 23.25\$/MWh. In the weather for Wednesday, temperatures are expected to warmer in parts of the region. Highs in Denver and Salt Lake City should be in the lower 90s, with overnight lows in the 60s or lower 70s. Temperatures in Las Vegas and Phoenix

Western Natural Gas (\$/mmBtu)

NYMEX Henry Hub

Close Change

Sep 3.641 -0.033

Oct 3.919 -0.020

Western Spot Gas

	Low	High
P G & E C G	3.79	3.83
Stanfield	3.25	3.32
So Cal	3.50	3.59
San Juan	3.16	3.37
Waha	3.41	3.55
Katy	3.50	3.58

OTC Western Forward Electricity Costs in \$/MWh

	Mid-Columbia				Palo Verde				SP-15				NP-15				Mead			
	On-Peak		Off-Peak		On-Peak		Off-Peak		On-Peak		Off-Peak		On-Peak		Off-Peak		On-Peak		Off-Peak	
	Bid	Ask	Bid	Ask	Bid	Ask	Bid	Ask	Bid	Ask	Bid	Ask	Bid	Ask	Bid	Ask	Bid	Ask	Bid	Ask
Sep 2009	34.25	35.25	NA	NA	32.75	33.75	NA	NA	35.75	36.75	NA	NA	36.25	37.25	NA	NA	NA	NA	NA	NA
Oct 2009	34.00	35.00	NA	NA	32.25	33.25	NA	NA	36.50	37.50	NA	NA	37.50	38.50	NA	NA	NA	NA	NA	NA
Nov 2009	41.75	42.75	NA	NA	36.00	37.00	NA	NA	41.50	42.50	NA	NA	43.50	44.50	NA	NA	NA	NA	NA	NA
Q4 2009	42.05	43.05	34.75	35.75	36.75	37.75	26.75	27.75	42.25	43.25	30.50	31.50	44.00	45.00	33.00	34.00	39.75	40.75	NA	NA
Q1 2010	44.75	45.75	38.25	39.25	44.00	45.00	32.00	33.00	48.25	49.25	35.00	36.00	49.75	50.75	36.75	37.75	NA	NA	NA	NA
Q2 2010	35.75	36.75	NA	NA	47.50	48.50	NA	NA	49.00	50.00	NA	NA	48.75	49.75	NA	NA	NA	NA	NA	NA
Q3 2010	55.50	56.50	NA	NA	62.25	63.25	NA	NA	65.00	66.00	NA	NA	63.75	64.75	NA	NA	NA	NA	NA	NA
Q4 2010	55.75	56.75	NA	NA	51.75	52.75	NA	NA	58.75	59.75	NA	NA	60.50	61.50	NA	NA	NA	NA	NA	NA
Q1 2011	55.00	56.00	NA	NA	54.50	55.50	NA	NA	59.75	60.75	NA	NA	61.75	62.75	NA	NA	NA	NA	NA	NA
Cal 10	48.00	49.00	38.00	39.00	51.40	52.40	34.35	35.35	55.25	56.25	38.00	39.00	55.75	56.75	39.50	40.50	54.15	55.15	37.10	38.10
Cal 11	54.25	55.25	43.00	44.00	58.25	59.25	39.50	40.50	63.25	64.25	43.75	44.75	64.00	65.00	45.25	46.25	61.25	62.25	42.25	43.25
Cal 12	55.75	56.75	44.50	45.50	60.25	61.25	41.00	42.00	65.50	66.50	45.50	46.50	66.25	67.25	47.50	48.50	63.50	64.50	43.75	44.75
Cal 13	56.75	57.75	45.50	46.50	61.75	62.75	41.75	42.75	67.25	68.25	46.75	47.75	68.00	69.00	49.25	50.25	65.00	66.00	44.50	45.50
Cal 15	58.50	59.50	45.75	46.75	63.75	64.75	42.00	43.00	69.75	70.75	47.50	48.50	70.75	71.75	50.50	51.50	67.00	68.00	44.75	45.75
Cal 16	59.50	60.50	46.00	47.00	64.75	65.75	42.25	43.25	71.00	72.00	48.00	49.00	72.00	73.00	51.25	52.25	68.00	69.00	45.00	46.00
Cal 17	60.00	61.00	46.00	47.00	65.25	66.25	42.25	43.25	71.75	72.75	48.25	49.25	72.75	73.75	51.75	52.75	68.50	69.50	45.00	46.00

Represents the most recent bid/ask spread at time of publishing. The EMR does not warrant or guarantee their accuracy or that any transitions were or could have been executed at the indicated price. EMR assumes no liability for any direct or indirect loss or damage of any kind arising from the use of this data, including losses or damages arising as a result of EMR's negligence.

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CAISO Peak Load Forecasts (MW)

For	All CAISO	PG&E	SCE	SDGE
8/11/09	42,201	18,790	19,767	3,646
8/12/09	41,971	18,435	19,737	3,804

Alberta Power Pool Index in C\$/MWh

	Peak (14)	Peak (16)	Off-Peak	Flat	Change
8/7/09	40.93	38.57	21.75	33.40	0.52
8/8/09	36.32	34.22	21.37	30.16	-3.24
8/9/09	26.66	25.44	22.07	24.37	-5.79

CIBC Energy Update Western OTC Forward Natural Gas Prices in \$/mmBtu

Dates	NYMEX	Sumas	Malin	Rockies	SoCal
Sep-09 to Oct-09	5.46	5.40	5.08	4.85	5.05
Nov-09 to Mar-10	5.86	5.16	5.46	5.02	5.54
Apr-10 to Oct-10	6.91	6.92	6.52	6.15	6.52

Data provided by CIBC World Markets' Energy update and NYMEX. The prices provided by CIBC are indications only, as prices fluctuate throughout the day. All prices are based on NYMEX settlements for the day of publication, and prices for other hubs cannot be guaranteed by either CIBC or the EMR. Investors should use above prices at their own risk, as CIBC and the EMR are not responsible for any inaccuracies contained in the above data set.

Western Break-Even Heat Rates

HUB	Gas Hub	Spot Gas, \$/mmBtu	Plant Type	Peak Break-even Heat Rate	Off-Peak Break-even Heat Rate	Var. O & M	Avg. Spot Peak, \$/MWh	Avg. Spot Off-Peak, \$/MWh	Avg. Spot Peak and Off-Peak prices represent arithmetic averages between the daily high and low price for each hub. Variable O&M costs are approximations of Combined Cycle and Combustion Turbine plant VOMs only.
Mid-C	Stanfield	\$3.32	CC	11,747	8,810	\$2.50	\$41.50	\$31.75	
Mid-C	Stanfield	\$3.32	CT	11,295	8,358	\$4.00	\$41.50	\$31.75	
NP-15	PG & E	\$3.83	CC	10,477	6,475	\$2.50	\$42.63	\$27.30	
NP-15	PG & E	\$3.83	CT	10,085	6,084	\$4.00	\$42.63	\$27.30	
SP-15	SoCal	\$3.59	CC	11,177	6,337	\$2.50	\$42.63	\$25.25	
SP-15	SoCal	\$3.59	CT	10,759	5,919	\$4.00	\$42.63	\$25.25	

Western City Temperature Forecasts

Region	City	11-Aug-2009			12-Aug-2009			13-Aug-2009			14-Aug-2009			15-Aug-2009		
		High	Low	HDD/CDD	High	Low	HDD/CDD	High	Low	HDD/CDD	High	Low	HDD/CDD	High	Low	HDD/CDD
CA	Fresno	103	72	/22.5	103	71	/22	97	67	/17	92	66	/14	90	65	/12.5
CA	Los Angeles	83	65	/9	86	67	/11.5	86	66	/11	84	65	/9.5	83	65	/9
CA	Sacramento	99	61	/15	97	60	/13.5	93	58	/10.5	89	59	/9	93	59	/11
CA	San Francisco	72	54	2/	70	57	1.5/	68	55	3.5/	68	55	3.5/	68	56	3/
NW	Portland	71	61	/1	76	60	/3	75	60	/2.5	78	57	/2.5	80	58	/4
NW	Seattle	68	56	3/	73	57	0/	66	56	4/	72	57	0.5/	76	57	/1.5
NW	Spokane	83	54	/3.5	80	53	/1.5	78	54	/1	79	49	1/	80	52	/1
Rockies	Denver	86	59	/7.5	90	61	/10.5	91	60	/10.5	92	59	/10.5	90	58	/9
SW	Las Vegas	102	82	/27	103	84	/28.5	103	85	/29	102	83	/27.5	98	79	/23.5
SW	Phoenix	107	86	/31.5	107	85	/31	103	85	/29	104	84	/29	106	82	/29
SW	Salt Lake City	91	65	/13	94	71	/17.5	95	70	/17.5	89	67	/13	86	65	/10.5

Western Generating Unit Outages

	Capacity Unit	Owner*	Fuel	Begins	Ends	Reason
Current	3,634 CAISO units curtailed < 250 MW	various	various	NA	NA	planned and unplanned
	1,131 Columbia Generating Station	Energy Northwest	nuke	8/5/2009	?	fire
	933 Hyatt Thermalito	CDWR	hydro	7/22/2009	?	@ 597 MW, planned
	337 Inland Empire #2	Calpine	gas	1/7/2009	?	unplanned
	374 San Luis	Bureau of Reclamation	hydro	6/13/2009	?	@ 64 MW, planned

Bold denotes change from previous EMR. *Entity with majority share of the unit.

Future outages are provided in part by NukeWorker.com. These are estimates and could change at any time.

Energy Market Report - Volume Weighted Price Index

Buy Peak								
Delivery Hub	Start Date	End Date	Volume (MWh)	No. of Trades	Low	High	Vol. Wtd. Avg.	Change
MIDC	08/11/09	08/11/09	8,800	20	\$41.00	\$42.00	\$41.364	\$1.864
PV	08/11/09	08/11/09	7,200	18	\$42.25	\$42.75	\$42.597	\$3.597

Buy Off-Peak								
Delivery Hub	Start Date	End Date	Volume (MWh)	No. of Trades	Low	High	Vol. Wtd. Avg.	Change
MIDC	08/11/09	08/11/09	7,400	34	\$31.25	\$32.50	\$31.730	-\$2.598
PV	08/11/09	08/11/09	1,400	6	\$22.75	\$23.25	\$23.107	-\$5.893

Sell Peak								
Delivery Hub	Start Date	End Date	Volume (MWh)	No. of Trades	Low	High	Vol. Wtd. Avg.	Change
ERCOT-N	08/11/09	08/11/09	12,000	12	\$41.95	\$43.25	\$42.890	-\$1.198
MIDC	08/11/09	08/11/09	18,800	44	\$40.00	\$44.00	\$41.569	\$1.799
PV	08/11/09	08/11/09	8,800	20	\$36.25	\$42.75	\$41.000	NA

Sell Off-Peak								
Delivery Hub	Start Date	End Date	Volume (MWh)	No. of Trades	Low	High	Vol. Wtd. Avg.	Change
MIDC	08/11/09	08/11/09	1,000	5	\$31.75	\$32.25	\$32.000	-\$1.696

Eastern Pre-Scheduled Firm Power Price Ranges

Prices for 8/11/2009	Peak				Off-Peak			
	Low		High		Low		High	
	\$/MWh	Change	\$/MWh	Change	\$/MWh	Change	\$/MWh	Change
AEP	40.00	NA	40.00	NA	26.45	NA	26.55	NA
Cinergy	NA	NA	NA	NA	NA	NA	NA	NA
Entergy	36.25	-3.75	36.50	-3.50	NA	NA	NA	NA
ERCOT	NA	NA	NA	NA	NA	NA	NA	NA
ERCOT-North	41.95	-1.05	43.50	-1.50	23.70	NA	24.75	NA
Nepool	44.75	0.25	45.25	0.25	31.75	2.25	32.50	3.00
N Illinois	NA	NA	NA	NA	24.50	NA	24.50	NA
PJM-West	NA	NA	NA	NA	31.75	NA	32.00	NA
TVA*	NA	NA	NA	NA	NA	NA	NA	NA

*Indicates system firm price.

EMR Prices include price ranges from various sources, including confidential phone communication, marketer and LSE trade sheets, and prices reported by the Intercontinental Exchange (ICE).

Midwest

Traders' lack of interest on Friday meant that AEP/Dayton missed out on a rally in Midwestern electricity trading ahead of the weekend, but Monday's prices at the hub reflected at least a portion of those gains, as peak blocks sold for about 40\$/MWh, while the off-peak went for over 26\$/MWh. Financial power prices pulled back sharply at Cinergy, with peak swaps shedding about 9\$/MWh in transactions between 35.75 and 40\$/MWh. Most areas of the region can expect temperatures to drop a few degrees on Wednesday, as daytime highs likely top out in the upper 70s in Chicago and Pittsburgh, the lower 80s in Cincinnati, and the mid-80s in Detroit. Nighttime lows should settle into the lower-to-mid 60s region-wide. According to the six-to-ten day forecast, below-normal temperatures are predicted to prevail in Minnesota, Wisconsin, Iowa, northern Illinois, and most of Missouri during the August 16th to 20th timeframe. Michigan, Indiana, southern Illinois, and northwestern Ohio should hold to seasonal norms during the period, and southeastern Ohio will probably be warmer than usual. In nuclear unit news, AEP's D.C. Cook #2 (1,060 MW) in Michigan ramped up to full power over the weekend after having been shut down late last month for replacement of a coolant pump seal.

New England

Monday's trading saw Nepool hold on to Friday's strong weather-driven gains, but the market barely budged peak prices during the session, while the off-peak added a little more than 2\$/MWh. Daytime blocks were bought and sold from 44.75 to 45.25\$/MWh at the hub, and their nighttime counterparts fetched between 31.75 and 32.50\$/MWh, with both shapes posting modest volumes. Cooler temperatures are in the forecast for Boston on Wednesday, as highs likely reach only about 77 degrees, and lows dip into the mid-60s. Hartford can expect nighttime temperatures to fall to the same level, but the city should experience warmer daytime conditions in the mid-80s. The latest six-to-ten day forecast

showed all of New England at temperatures above historical norms between August 16th and 20th, with the southern half of the region being particularly warm compared to averages.

Mid-Atlantic

ICE's platform posted no physical day-ahead power transactions at PJM-West during the Monday session, but financial trading remained brisk as traders appeared to be hedging positions in the face of expectations for some of the strongest power usage seen all season on the PJM grid. Next-day peak swaps opened up a relatively wide spread in trading between 61.50 and 67\$/MWh, down a couple dollars from Friday. Off-peak swaps saw a flurry of activity as well, going for between 31 and 32.25\$/MWh, while a handful of physical off-peak blocks fetched from 31.75 to 32\$/MWh. Load forecasts for the PJM Interconnection projected a firm drop in demand during peak hours on Wednesday, which should take prices down a few notches. That diminished usage is to reflect the arrival of milder conditions, with Baltimore, Philadelphia, and Washington, D.C. all predicted to have highs of 87 degrees during the day, while lows slip into the upper 60s to lower 70s. The latest six-to-ten day forecast indicated that the entire Mid-Atlantic area would be warmer than usual from August 16th to 20th, with populous areas along the Eastern Seaboard being particularly hot.

Southeast

If any power market in the eastern half of the country has been range-bound this summer, it's been into Entergy, where peak power has, by and large, held to about 35\$/MWh for most of the season, rarely able to break 40\$/MWh for more than a session or two. Monday's round of trading was no exception, as heavy load power skidded lower by more than 3\$/MWh to sell for between 36.25 and 36.50\$/MWh. Falling temperatures in the South Central areas should continue to keep a lid on power prices, with Wednesday's forecast showing highs in the upper 80s for Nashville and New Orleans, while points farther to the east, such as Atlanta and Raleigh-Durham, hover around 90

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degrees. At night, most points can expect lows in the mid-60s to lower 70s, with areas along the Gulf Coast like to fall to around 80 degrees. Looking further out, the six-to-ten day forecast for August 16th to 20th projected above-normal temperatures for the Southeast corner of the country, while western Tennessee, Mississippi, and southeastern Louisiana can expect seasonable weather. Arkansas and western Louisiana should be cooler than usual during the forecast period.

Texas would be much cooler than normal between August 16th and 20th.

Texas

Traders shrugged off the prospect that the Dallas metro area would be subject to another round of triple-digit temperatures on Tuesday, instead appraising a situation in which spot gas remains at rock-bottom prices, while the Texas generation picture looks nearly complete, with only a small amount of potential capacity reported offline on Monday. With those pieces in place, ERCOT-North watched wholesale power prices ease during the session, as peak blocks shed a little more than a dollar in exchanges between 41.95 and 43.50\$/MWh. Meanwhile, off-peak packages were picked up from 23.70 to 24.75\$/MWh. ERCOT load forecasts for Wednesday indicate a slight drop-off in demand during peak hours, but the decrease won't likely be significant enough to have much impact on power prices. Wednesday's weather forecast put Houston at a high of 100 degrees during the day, while Dallas and El Paso reach the upper 90s. During the overnight period, lows should range from the lower 70s in the western part of the state to the upper 70s at points farther east. The most recent six-to-ten day outlook predicted that all of

Eastern Natural Gas (\$/mmBtu)

NYMEX Henry Hub

Close Change

Sep 3.641 -0.033

Oct 3.919 -0.020

Eastern Spot Gas

	Low	High
San Juan	3.16	3.37
Waha	3.41	3.55
Katy	3.50	3.58
TETCO-STX	3.48	3.55
LA Avg.	3.52	3.62
Col Gas TCO	3.65	3.73
Chicago	3.52	3.62

Eastern Peak Load Forecasts (MW)

For	ERCOT	PJM	PJM West	Comed	AEP	Dayton	Duquesne	Dominion	NYISO
8/11/09	61,686	51,060	7,519	17,507	20,907	3,011	2,463	17,859	28,186
8/12/09	60,614	47,272	6,974	16,959	19,687	2,746	2,284	16,566	25,940

Eastern Break-Even Heat Rates

HUB	Gas Hub	Spot Gas, \$/mmBtu	Plant Type	Peak Break-even Heat Rate	Off-Peak Break-even Heat Rate	Var. O & M	Avg. Spot Peak, \$/MWh	Avg. Spot Off-Peak, \$/MWh	Avg. Spot Peak and Off-Peak prices represent arithmetic averages between the daily high and low price for each hub. Variable O&M costs are approximations of Combined Cycle and Combustion Turbine plant VOMs only.
ERCOT-W	Katy	\$3.58	CC	N A	N A	\$2.50	N A	N A	
ERCOT-W	Katy	\$3.58	CT	N A	N A	\$4.00	N A	N A	
ERCOT-W	San Juan	\$3.37	CC	N A	N A	\$2.50	N A	N A	
ERCOT-W	San Juan	\$3.55	CT	N A	N A	\$4.00	N A	N A	
ERCOT-N	TETCO-STX	\$3.55	CC	11,331	6,120	\$2.50	\$42.73	\$24.23	
ERCOT-N	TETCO-STX	\$3.55	CT	10,908	5,697	\$4.00	\$42.73	\$24.23	
Entergy	LA Avg.	\$3.62	CC	9,348	N A	\$2.50	\$36.38	N A	
Entergy	LA Avg.	\$3.62	CT	8,934	N A	\$4.00	\$36.38	N A	
PJM-West	Col Gas TCO	\$3.73	CC	N A	7,886	\$2.50	N A	\$31.88	
PJM-West	Col Gas TCO	\$3.73	CT	N A	7,483	\$4.00	N A	\$31.88	
N. ILL	Chicago CG	\$3.62	CC	N A	6,077	\$2.50	N A	\$24.50	
N. ILL	Chicago CG	\$3.62	CT	N A	5,663	\$4.00	N A	\$24.50	

Energy Market Report is published each weekday except for holidays by Economic Insight, Inc.
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ERCOT Day-Ahead Market Report Summary (Averaged by Shape)

8/11/2009	Service	Avg. MW Requested	Avg. MW Procured	Wtd. Avg. Price (\$/MWh)	Avg. MW Bid
Peak	Non-Spinning Reserve	846	715	\$4.04	1,653
Off-Peak	Non-Spinning Reserve	1,015	854	\$1.46	1,831
Peak	Regulation-Down Reserves	943	727	\$5.24	2,341
Off-Peak	Regulation-Down Reserves	916	707	\$3.95	1,784
Peak	Regulation-Up Reserves	771	586	\$14.19	1,399
Off-Peak	Regulation-Up Reserves	815	592	\$3.53	1,907
Peak	Response Requirement	2,300	1,296	\$14.78	2,485
Off-Peak	Response Requirement	2,300	1,254	\$3.10	2,745

CIBC Energy Update Eastern OTC Forward Natural Gas Prices in \$/mmBtu

Dates	NYMEX	Ventura	Chicago	T26 (NYC)	T26(N App)
Sep-09 to Oct-09	546	533	544	755	662
Nov-09 to Mar-10	586	557	576	637	624
Apr-10 to Oct-10	691	683	690	919	811

Data provided by CIBC World Markets' Energy update and NYMEX. The prices provided by CIBC are indications only, as prices fluctuate throughout the day. All prices are based on NYMEX settlements for the day of publication, and prices for other hubs cannot be guaranteed by either CIBC or the EMR. Investors should use above prices at their own risk, as CIBC and the EMR are not responsible for any inaccuracies contained in the above data set.

Eastern City Temperature Forecasts

Region	City	11-Aug-2009			12-Aug-2009			13-Aug-2009			14-Aug-2009			15-Aug-2009		
		High	Low	HDD/CDD	High	Low	HDD/CDD	High	Low	HDD/CDD	High	Low	HDD/CDD	High	Low	HDD/CDD
ECAR	Cincinnati	86	65	/10.5	82	62	/7	84	65	/9.5	87	67	/12	88	67	/12.5
ECAR	Detroit	83	64	/8.5	84	66	/10	85	66	/10.5	87	67	/12	87	70	/13.5
ECAR	Pittsburgh	82	60	/6	79	61	/5	81	65	/8	84	66	/10	84	67	/10.5
ERCOT	Dallas	100	78	/24	98	76	/22	95	74	/19.5	96	75	/20.5	97	76	/21.5
ERCOT	El Paso	97	72	/19.5	97	72	/19.5	98	73	/20.5	95	72	/18.5	94	71	/17.5
ERCOT	Houston	99	78	/23.5	100	78	/24	99	78	/23.5	96	77	/21.5	95	77	/21
NIL	Chicago	81	67	/9	79	66	/7.5	81	66	/8.5	86	68	/12	89	70	/14.5
NPCC	Boston	84	67	/10.5	77	63	/5	77	63	/5	80	64	/7	83	65	/9
NPCC	Hartford	88	67	/12.5	85	64	/9.5	82	63	/7.5	83	64	/8.5	86	66	/11
PJM	Baltimore	91	73	/17	87	69	/13	83	70	/11.5	84	71	/12.5	87	72	/14.5
PJM	Philadelphia	91	71	/16	87	68	/12.5	86	68	/12	85	70	/12.5	86	67	/11.5
PJM	Washington DC	92	73	/17.5	87	70	/13.5	82	69	/10.5	84	70	/12	86	70	/13
SERC	Atlanta	91	73	/17	89	69	/14	89	70	/14.5	89	71	/15	87	71	/14
SERC	Nashville	90	70	/15	87	67	/12	88	68	/13	89	69	/14	90	70	/15
SERC	New Orleans	89	78	/18.5	88	80	/19	89	80	/19.5	87	80	/18.5	87	80	/18.5
SERC	Raleigh-Durham	97	74	/20.5	91	71	/16	86	70	/13	87	67	/12	88	68	/13

Industrial Information Resources' (iirenergy.com) NERC Aggregate Outages (Net change from previous trading day)

NERC Region	ERCOT	FRCC	MRO	NPCC	RFC ECAR	RFC MAAC	RFC MAIN	SERC	SPP	WECC
Total MWs Out	198	416	1,170	3,670	1,600	1,037	660	2,731	130	6,271
Net Change in Generation	1,431	-402	-153	-505	1,312	-123	-342	1,170	0	-589

The aggregate outage summary is provided by Industrial Information Resources. Greater detail and unit specific news can be found at iirenergy.com. These numbers represent the best information available during the morning of publication. Neither EMR nor IIR assume liability for any direct or indirect loss or damage of any kind arising from the use of this data, including losses or damages arising as a result of EMR or IIR's negligence.

Eastern Generating Unit Outages

Capacity Unit	Owner*	Region	Type	Begins	Ramping Up	Reason	Notes
1,066 DC. Cook #1	AEP	RFC/3	Nuke	9/21/08	?	Fire in main turbine	0%

Bold denotes change from previous EMR. *Entity with majority share of the unit.
Future outages are provided in part by NukeWorker.com. These are estimates and could change at any time.

Equipment Details

Report Date 21 Oct 2009

Equipment ID	P	U	SYS	COMP	SEQ	Mimic Tag	Equipment Name	<input checked="" type="checkbox"/> Equipment in Service	Include on Job Order
UBO-3-250-XFMR-03	UBO	3	250	XFMR	3		GENERATOR MAIN 2.3 KV/60KV TRANSFORMER		Qty Start Date

Manufacturer S/N:

AL code:

Last 1

Equipment Notes:

Windings, Cooling coils, Ltg-ar, Gas relay, Temperature sensors metering, All Gauges oil level etc., Bushings, Oil, Cons. Tank, Conservator tank, Temperature gauges at xfmr, Including bus work HT side at bushings only, All wiring, conduits local & to switch board.
Mfr: Westinghouse
Type: single phase oil immersed water cool
volt: 25000/7200/60001
Kwatts: 1875

Job History:

* Status: WC JO #: 59090 Wrk Grp: EL Job Name: UBO T3 Cooling Problems Callout

Completed by: KH on 05 Jun 2009

Job Details: UBO T3 Cooling Problems Callout Change 51H Relay time dial setting

Work Performed: Changed T3medial fomr 5 to 1

* Status: WC JO #: 59218 Wrk Grp: EL Job Name: High Temp Alarm T3 Callout

Completed by: GS on 03 Jun 2009

Job Details: Check high temp alarm on T3.

Work Performed: C&M crew processing oil hotter than set point on alarm. Adjusted alarm setpoint on ompon.

* Status: WC JO #: 59368 Wrk Grp: EL Job Name: Water in oil in T3 XFMR

Completed by: GS on 22 May 2009

Job Details: Replace oil dry out windings put back into service

Work Performed: Assisted C & M as a Control Release to isolate T3, assist in dryout and de-isolate and start up. See scans.

* Status: WC JO #: 51713 Wrk Grp: EL Job Name: Callout on High Temp Alarm on Xfmr

Completed by: GS on 07 Mar 2008

Job Details: Callout due to lack of cooling water to Xfmr.

Work Performed: High temperature alarm due to lack of cooling water from #1 water wheel exciter. T3 de-energized until alternate cooling water suppl

Equipment Details

Report Date 21 Oct 2009

* Status: WC JO #: 48110 Wrk Grp: EL Job Name: Call Out on UBO U3
Completed by: GS on 26 Jul 2007
Job Details: Oil level on trans tripped 86 relay. Raised sensor on sight glass 1/4" above oil level
Work Performed: See action taken on call out report, attached.

* Status: WC JO #: 45767 Wrk Grp: EL Job Name: Transformer Oil Samples
Completed by: DTC on 07 Mar 2007 (Assisted By: em)
Job Details: Take a 600 cc bottle sample for physical properties of oil from the C phase unit transformer(s). Send sample to lab and record result
Work Performed: Samples taken and sent to lab. Results in TOA, G drive and job order attachment.

* Status: WC JO #: 43445 RJ #: RJ2320 Wrk Grp: EL Job Name: Transformer Oil Samples
Completed by: GS on 30 Oct 2006 (Assisted By: dm, em)
Job Details: Take a 50 cc syringe sample for DGA and a 600 cc bottle sample for physical properties of oil from the unit transformer(s). Send sample to lab and record result
Work Performed: Samples taken and sent to lab. Results in TOA program, G drive and job order attachments.

* Status: WC JO #: 42878 Wrk Grp: EL Job Name: Started Gen
Completed by: MS on 24 Jul 2006 (Assisted By: lm)
Job Details: Re-start u3. Unit tripped on low xfmr oil.
Work Performed: Transformer oil level ok. Governor repaired. Unit on line at 13:36

* Status: WC JO #: 42614 Wrk Grp: EL Job Name: Transformer Oil Sample
Completed by: MS on 14 Jul 2006 (Assisted By: em)
Job Details: Please take a syringe DGA sample from the unit transformers.
Work Performed: Samples taken and sent to lab. Results in TOA program, G drive and job order attachments.

Report Date 21 Oct 2009

* Status: WC JO #: 38583 RJ #: RJ1670 Wrk Grp: EL Job Name: Doble Test U3 roof bushings

Completed by: RP on 12 Oct 2005 (Assisted By: WDG)

Job Details: Doble transformer roof bushings

Work Performed: Doble roof top bushings. Results in doble office, job order attachments and inspection book.

* Status: WC JO #: 38582 RJ #: RJ1665 Wrk Grp: EL Job Name: Doble test Unit Xfmrs

Completed by: CP on 07 Oct 2005 (Assisted By: JK)

Job Details: Doble test Unit Transformers.

Work Performed: Doble ABC single phase transformers. Results in doble office, job order attachments and inspection book.

* Status: WC JO #: 38573 RJ #: RJ2320 Wrk Grp: EL Job Name: Transformer Oil Samples

Completed by: TS on 06 Oct 2005 (Assisted By: PK,em)

Job Details: Take a 50 cc syringe sample for DGA and a 600 cc bottle sample for physical properties of oil from the unit transformer(s). Send sa

Work Performed: Sample taken and sent to lab. Results in TOA program, G drive, Job order attachments and inspection book.

* Status: WC JO #: 38047 Wrk Grp: EL Job Name: Unit 3 GSU Xfmr

Completed by: PK on 17 Sep 2005 (Assisted By: tk)

Job Details: Install junction box and pull wire through conduit for xfmr level detection.
Material @ P2.

Work Performed: Completed

* Status: WC JO #: 33668 RJ #: RJ2320 Wrk Grp: EL Job Name: Transformer Oil Samples

Completed by: MS on 01 Nov 2004 (Assisted By: gs,em)

Job Details: Take a 50 cc syringe sample for DGA and a 600 cc bottle sample for physical properties of oil from the unit transformer(s). Send sa

Work Performed: Oil sample taken .Sent sample to lab and documented results.

Equipment Details

Report Date 21 Oct 2009

* Status: WC JO #: 14584 RJ #: RJ2320 Wrk Grp: EL Job Name: Transformer Oil Samples
Completed by: TS on 08 Oct 2003
Job Details: Take a 50 cc syringe sample for DGA and a 600 cc bottle sample for physical properties of oil from the unit transformer(s).
Work Performed: Oil samples taken for Testing purposes.

* Status: WC JO #: 12992 RJ #: RJ2320 Wrk Grp: EL Job Name: Transformer Oil Samples
Completed by: DNR on 06 Jun 2002
Job Details: Take a 50 cc syringe sample for DGA and a 600 cc bottle sample for physical properties of oil from the unit transformer(s).
Work Performed:

* Status: WC JO #: 8988 RJ #: RJ1665 Wrk Grp: EL Job Name: Doble test
Completed by: DNR on 19 Dec 2001
Job Details: Transformer
Work Performed: Job not done. New job order issued.

* Status: WC JO #: 8565 RJ #: RJ2320 Wrk Grp: EL Job Name: Transformer Oil Samples
Completed by: DNR on 19 Dec 2001
Job Details: Take a 50 cc syringe sample for DGA and a 600 cc bottle sample for physical properties of oil from the unit transformer(s).
Work Performed: Job not done. New job order issued.

* Status: WC JO #: 12994 RJ #: RJ1665 Wrk Grp: EL Job Name: Doble test
Completed by: WV on 26 Apr 2000
Job Details: Transformer
Work Performed: Completed April 26, 2000. Job due in 2005

Equipment Details

Report Date 21 Oct 2009

* Status: WC	JO #: 4982	RJ #: RJ1670	Wrk Grp: EL	Job Name: <u>Doble test</u>
Completed by:	DD	on 25 Apr 2000	(Assisted By: rp)	
Job Details:	Transformer roof bushings			
Work Performed:				
* Status: WC	JO #: 7039	Wrk Grp: EL	Job Name: <u>Transformer hi temperature</u>	
Completed by:	LW	on 05 May 1999		
Job Details:	Wire high temperature alarm to RTV status point.			
Work Performed:				
* Status: WC	JO #: 5706	RJ #: RJ2320	Wrk Grp: EL	Job Name: <u>Transformer Oil Samples</u>
Completed by:	CP	on 16 Feb 1999	(Assisted By: rc)	
Job Details:	Take a 50 cc syringe sample for DGA and a 600 cc bottle sample for physical properties of oil from the unit transformer(s).			
Work Performed:				
* Status: WC	JO #: 4507	Wrk Grp: M	Job Name: <u>Transformer Fall Arrest System - Unit 3</u>	
Completed by:	SL	on 20 Nov 1998		
Job Details:	Model UH4000-2. Weld on base plates. Install base plates for unit-hoist as per instructions. Install during inspections or unit outage engineer, when installing the first one.			
Work Performed:	Fall arrest tie off point will be on ceiling of vault.			
* Status: WC	JO #: 4514	Wrk Grp: M	Job Name: <u>OCB Trsfmr Fall Arrest System - Unit 3</u>	
Completed by:	PC	on 21 Apr 1998		
Job Details:	(This job order is for the OCB Transformer. Not able to enter it into this system as a Unit or Line). Model UH4000-2. Weld on base hoist as per instructions. Install during inspections or unit outage. Notify Natalia Kostouk, WKP engineer, when installing the first c			
Work Performed:	Not required. Not over 10 feet.			

Equipment Details

Report Date 21 Oct 2009

* Status: WC JO #: 1531 RJ #: RJ1670 Wrk Grp: EL Job Name: Doble test
Completed by: MP on 15 Jul 1997
Job Details: [Transformer roof bushings]
Doble test
Work Performed: Reschedule for 1998. 1980 was last test.

* Status: WC JO #: 460 Wrk Grp: EL Job Name: Recondition transformer oil in a-phase.
Completed by: XXX on 01 Apr 1996
Job Details: [Xfrm]
Recondition transformer oil in a-phase, b-phase and c-phase WO 5381:02
Work Performed:

* Status: WC JO #: 462 Wrk Grp: EL Job Name: Recondition transformer oil in a-phase.
Completed by: XXX on 01 Mar 1996
Job Details: [Xfrm]
Recondition transformer oil in a-phase, b-phase and c-phase WO 5381:02
Work Performed:

* Status: WC JO #: 1522 Wrk Grp: EL Job Name: Doble test
Completed by: XXX on 01 Mar 1995
Job Details: [A phase transformer]
Doble test
Work Performed:

Report on Vegetation Management and Major Event Days

For FortisBC, tree related outages on the distribution and transmission systems represent on average about 20% of the yearly normalized customer outage hours. As with many other utilities, with similar service area and geography, tree related outages are a main source of unplanned outages.

Most tree related outages are due to tree failures that are outside of the established rights of way, rather than tree growth, with the most common problem being healthy trees that fall onto the power lines.

Historically trees that have fallen onto the power lines have been due to heavy snow and ice loading and wind which cause branches to break or trees to uproot. During the most severe storms these events have led to Major Event days as determined by the IEEE 2.5 Beta Method which determines the “normal” level of daily customer hours. Since 2003, six of the nine qualifying Major Events for FortisBC have involved tree related outages caused by healthy trees from outside the rights of way which have resulted in lengthy outages and restoration times.

The FortisBC programs for Vegetation Management and Engineering Design Standards do address the ongoing issue related to tree outages, and take a balanced approach that considers safety and reliability risks with costs and other non-financial considerations. However, due to the service area FortisBC manages, the terrain and size of the trees, the only way to eliminate tree related outages would be to establish tree free rights of way, which is extremely costly and likely impossible due to land requirements and environmental concerns.

The photographs in this report illustrate the some of the terrain and rights of way conditions in FortisBC’s service territory.

FortisBC Vegetation Management Program Descriptions

The FortisBC vegetation management program involves a managed program involving the three components outlined below. The vegetation management program is focused on a system that is free from hazards versus a system that is tree free.

Operating & Maintenance - This is the regular and ongoing identification and control of vegetation within Transmission and Distribution rights of way ensuring safety and reliability. Methods of vegetation control include slashing, mowing/mulching, pruning/trimming and chemical applications to ensure adequate vegetation to conductor clearances are maintained.

T&D ROW (Rights of Way) Reclamation – Capital -Capital costs for Rights of Way (“ROW”) Reclamation involving the regular and ongoing identification and removal of vegetation to improve or increase the “tree free” zone adjacent to Transmission and Distribution Lines. This involves the widening (where possible) of and yearly identification and removal of hazard trees adjacent to existing Transmission and Distribution corridors.

T&D PBHA (Pine Beetle Hazard Allocations) – Capital The identification and removal of Mountain Pine Beetle Killed trees which have a high probability of falling and coming in contact with Transmission or Distribution Lines. Recent years have seen a substantial increase in tree mortality due to the Mountain Pine Beetle. This acceleration in activity increases the potential of trees falling impacting Transmission and Distribution systems.

Engineering Design Standards

The FortisBC service territory lies within the Medium B deterministic weather load area, as prescribed by CSA standard C22.3 No.1-06 Clause 7 and Annex C.

The Medium B loading condition is defined as (C22.3 No. 1-06 Table 30):

- 12.5mm of Radial Ice
- 300N/m² Horizontal wind loading (this translates to approximately 110km/hr winds)
- -20°C Temperature

FortisBC design practices and standards therefore consider this loading condition to be the worst case, and lines are designed to withstand these forces which arise due to the weather. The design standards, however, do not account for mechanical impacts to a line or structure, such as traffic accidents and trees falling on the line. Designing structures to be resilient to these types of impacts would be financially prohibitive and near impossible considering the unpredictable nature of such incidents.

The risk of impacts from a traffic accident or tree fall are instead countered by prudent placement of the line, ensuring that appropriately sized rights of way are obtained and a rigorous vegetation management plan is in place, and in the case of traffic accidents, placing barriers to traffic where appropriate.

As described above, FortisBC’s vegetation management plan deals with tree growth within the rights of way and also extends to the removal of danger trees (unusually large, damaged or unhealthy trees) from outside of the rights of way. However little can be done about healthy trees which are outside of the ROW on land beyond the control of the utility.

1 **Analysis of FortisBC Major Event Days**

2 The table below provides a summary and description of the Major Event Days recorded by
 3 FortisBC for 2003 to 2009. This table illustrates how Major Event tree related outages are
 4 characterized by extreme and unusual weather conditions that not only contribute to the original
 5 outage but also can delay restoration activities due to the weather conditions and access issues
 6 related to the FortisBC service area.

Major Event Day Summary – 2003 to 2009				
Item	Date	Description and Cause	SAIDI Impact	SAIFI Impact
1	January 7, 2009	Heavy snow and road closures from avalanches a. 92% of customer hours related to transmission outages on 30L and 32L due to trees b. Avalanches delayed restoration as there was no access available to restore service	1.13	0.17
2	July 10, 2008	Windstorm throughout service area a. 35% of customer hours related to a transmission outage on 49L due to trees b. Remainder of customer hours related to widespread distribution outages c. Wind speeds recorded at up to 109 km/hr	1.10	0.19
3	June 29, 2007	Loss of supply to Kelowna from BCTC	0.62	0.53
4	December 9, 2006	Equipment failure in Osoyoos	0.34	0.04
5	October 29, 2006	Wind and snow throughout the service area a. 63% of customer hours related to transmission outages b. 81% of customer hours on transmission outages on 30L and 32L due to trees	0.32	0.12
6	January 10, 2006	Heavy snow in the Kootenay's a. 76% of customer hours related to transmission outages b. 84% of customer hours on transmission related to 19L line due to trees	0.31	0.14
7	October 28, 2003	Wind and snow affecting majority of service area a. 95% of customer hours related to distribution outages b. 73% of the customer hours on distribution related to HOL3 feeder	0.99	0.25
8	August 22, 2003	Forest fires in the Okanagan	0.68	0.07
9	June 30, 2003	Wind in the Kelowna area: a. Exclusively related to distribution outages b. 95% of the customer hours related to one outage on the JOR1 feeder	0.27	0.02

Conclusion

The FortisBC Vegetation Management program and Engineering Design standards are cost effective programs that manage tree growth and off right of way hazard tree related impacts. However, the program cannot identify all possible healthy tree impacts that will either fail or uproot due to extreme weather events and affect the power system. These types of failures also often involve large trees that cause considerable damage that typical design standards do not address.

The only improvements that can be made related to extreme weather events would involve limiting the tree exposure by widening the right of ways (tree free) or by undergrounding of the affected transmission or distribution lines. Due to costs, undergrounding is not a realistic option and the acquisition and clearing of tree free right of ways would also be difficult to justify for several reasons, including:

- The costs would be high due to the size of rights of way required for tree free zones. Acquisition and clearing costs would increase with the substantially wider rights of way, especially where the lines are installed along steep side slopes
- The wider rights of way would be met by public opposition due to lands, environmental and aesthetics related issues.
- Acquisition of the land to create tree free rights of way, especially on existing lines, would be costly and would require the support of private property owners adjacent to the existing rights of way.

1

Avalanches related to Jan 7th, 2009 Major Event Day



2

2007 Windstorm in Creston (non Major Event Day)



July 10, 2008 Windstorm



Typical FortisBC off ROW healthy tree exposure to 63kV transmission lines



Healthy off ROW tree on distribution circuit related to a non Major Event Day)



Report on Implementing a Worst Performing Feeder Program

FortisBC currently does not have a specific program for addressing feeders based purely on reliability statistics. Instead, FortisBC utilizes proactive maintenance programs to monitor and repair the condition of the transmission and distribution systems as well as other programs intended to address condition, safety, power quality, and growth related problems that are identified outside of the normal cycles.

To date, these programs along with high priority large capital projects to address capacity, CSA voltage requirements, safety and reliability to large areas rather than at a feeder level have not only addressed their primary requirements, but have also resulted in an improving trend related to normalized SAIDI and SAIFI distribution reliability.

Overview of Ongoing FortisBC Programs affecting Distribution Reliability

Transmission and Distribution Growth Capital Projects - These are mainly new station and distribution projects that take place primarily to address load growth. These could include new Greenfield stations, extension of existing feeders to other feeders and/or re-conductor portions of line to ensure adequate end of line voltage in all operational configurations. Over the past number of years these projects have been the highest priority projects to address capacity issues and have also provided for more backup capability and operational versatility resulting in reliability improvements.

Condition Assessment and Rehabilitation - FortisBC utilizes a condition assessment and rehabilitation program that takes place on an eight year cycle. This identifies and addresses all condition related issues on both the distribution and the transmission system mainly focusing on the structures (poles, cross arms, insulators, anchoring). This approach proactively identifies and addresses condition related issues, rather than a reactive approach that specifically looks at historical feeder level reliability. This program heavily focuses on employee and public safety, but does address specific area or localized reliability issues.

Distribution Line Rebuilds - FortisBC also utilizes a Distribution Line Rebuild program to replace failing overhead and underground sections of line that are beyond regular rehabilitation and require complete rebuilds. These rebuilds are normally driven by safety and reliability.

Historically the Distribution Line Rebuilds often focused on sections of line involving copper conductor which did not meet today's design standards and were beyond

rehabilitation due to age. A separate Copper Conductor Replacement program was introduced in recent Capital Plans that was focused on safety but also would have improved reliability. Most distribution line failures have involved #8 brittle copper, which also requires special work methods that have a negative effect on distribution reliability.

Small Planned Capital Projects – This project support off cycle work that is not captured in the Condition Assessment and Rehabilitation Project, or that is the result of storm damage or trees. This project's main focus is safety, but also affects reliability by proactively acting on known problem areas prior to failure.

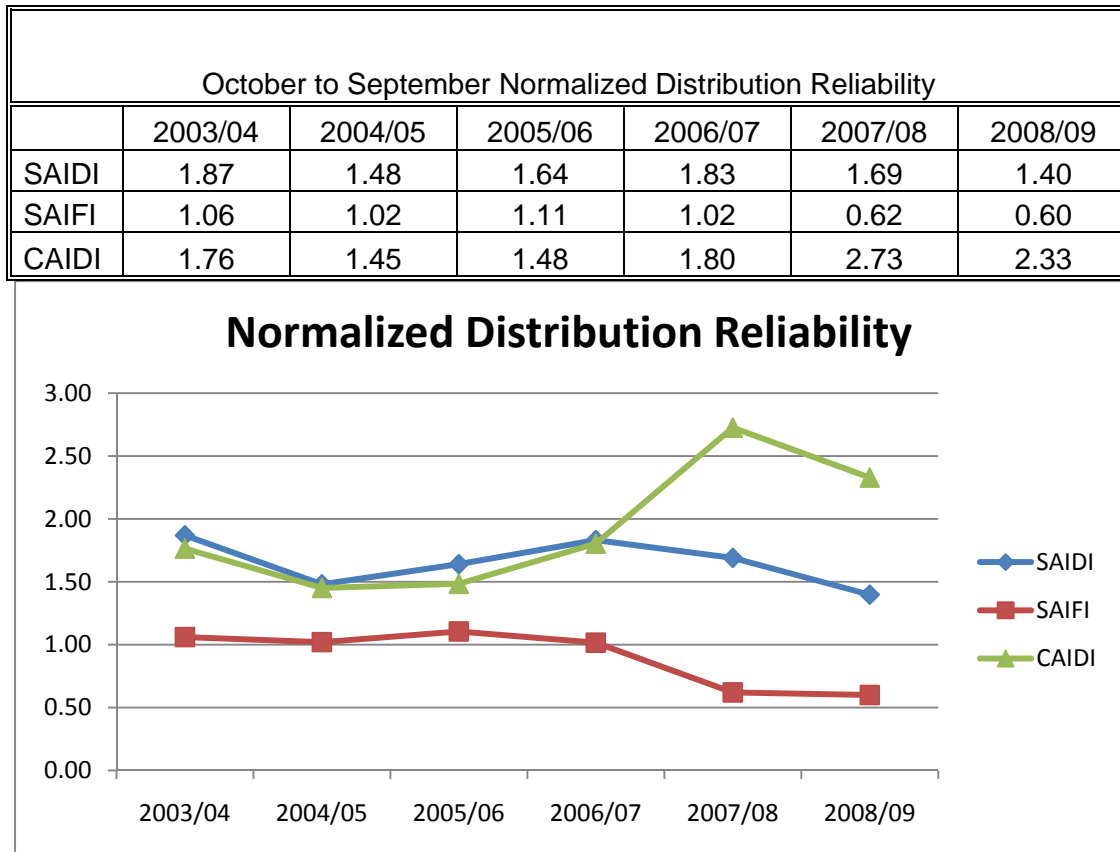
Unplanned Growth Projects – This project focuses on growth related initiatives that have not specifically been addressed in the capital plan. These projects would focus issues related to local area growth that normally area identified through operational issues such as voltage complaints, power quality issues or protection related problems. Typical projects that would have a direct affect on reliability include distribution protection upgrades, single to three phase upgrades and load splitting to address these issues.

Distribution Automation Project – This Capital project has a direct impact on the distribution feeder level reliability by improving remote visibility of problems and loading, and by providing remote control related to restoration.

Vegetation Management Program - FortisBC has an active right-of-way management program that focuses on line patrols and brushing. The rights-of-way are maintained on a regular basis however due to the geography in parts of the service area there can be very large trees surrounding the line combined with rights of way that do not completely eliminate the impact of trees on the power system. In these cases tree related outages are inevitable during high winds or storms and do have a significant impact on reliability statistics.

FortisBC Normalized Distribution Reliability

As a result of the programs identified above, the table below shows the improving trends for the Normalized SAIDI and SAIFI statistics for the FortisBC Distribution System. The FortisBC SAIDI and SAIFI trend is supported by current projects such as Station Automation which has improved the remote visibility and restoration of distribution feeder related problems.



Problems with CAIDI Measure

CAIDI is defined as the measure of the length of time the average customer can expect to be without power during an interruption. It is often viewed as a direct measure of how quickly a utility responds to an outage situation and restores the power. However, it can also mean that the utility has experienced more short duration outages and give a false sense of performance in this area, as explained below.

The table and graph above demonstrate FortisBC's concerns with the use of the CAIDI statistic. Specifically in review of the 2007/08 and 2008/09 results, although there is an improvement in both SAIDI and SAIFI, there is a dramatic increase in CAIDI. This result is mathematically easy to explain since CAIDI is the result of SAIDI divided by SAIFI. This mathematical relationship means that incremental improvement in SAIFI versus SAIDI will result in an increase to CAIDI.

Because of this relationship, as in FortisBC's case, CAIDI could increase while the direct indices of SAIDI and SAIFI are both improving. As a typical example of this, consider a protection upgrade project involving the replacement of fuses with an electronic recloser. This type of project would generally be driven due to the high load or large number of customers downstream of the protective device. In the case of fuse protection, a fault would cause a large

area outage that would have a large impact on SAIFI (due to the number of customers), and a lesser impact on SAIDI (depending on response time) since the fuse is easily replaced to restore power. With the electronic recloser, the momentary type of faults (animals, trees touching the lines, etc) would be reduced to momentary faults rather than sustained faults which would have greater impact to SAIFI than on SAIDI, which would cause CAIDI to increase.

The mathematical relationship to SAIDI and SAIFI and the problems with using CAIDI as a measure are demonstrated by the three examples shown below.

SAIDI improving and SAIFI remaining constant – in this case CAIDI supports improving trend.

CAIDI Example Number 1			
	Year 1	Year 2	Year 3
SAIDI	3.0	2.75	2.5
SAIFI	2.0	2.0	2.0
CAIDI	1.5	1.38	1.25

SAIDI remaining constant and SAIFI improving – in this case CAIDI does not support improving trend.

CAIDI Example Number 2			
	Year 1	Year 2	Year 3
SAIDI	3.0	3.0	3.0
SAIFI	2.0	1.75	1.5
CAIDI	1.5	1.7	2.0

SAIDI improving and SAIFI improving – in this case CAIDI does not support improving trend.

CAIDI Example Number 3			
	Year 1	Year 2	Year 3
SAIDI	3.0	2.75	2.5
SAIFI	2.0	1.75	1.5
CAIDI	1.5	1.57	1.67

For the reasons outlined above FortisBC recommends that SAIDI and SAIFI are maintained as the reliability performance measures, rather than using CAIDI as a direct measure.

Concerns with Worst Performing Feeder Program

FortisBC continues to assess the impacts and benefits of implementing a Worst Performing Feeder Program in comparison with the current Distribution Programs.

Concerns related to a Worst Performing Feeder Program include:

1. Worst Performing feeder relies on a reactive approach by analyzing only reliability data after the fact. Reliability statistics often don't give a clear or consistent representation of the condition of the line. Many outages in FortisBC's service area

are due to extreme weather (lightning, snow, wind, etc.), trees, vehicles, birds and animals which are beyond the control of the Company and have little to do with the condition of the line. Prearranged planned outages have a significant impact on reliability statistics which can not be controlled by changing any current programs or equipment. Although these types of issues can be addressed in the review of the reliability statistics in determining the Worst Performing Feeder, it involves a very manual process that can introduce errors. The table below attempts to demonstrate how inconsistent the normalized yearly data can be related to feeder performance from year to year.

FortisBC Worst Performing Feeders based on Normalized Reliability results												
Rank	Feeder	2008	Feeder	2007	Feeder	2006	Feeder	2005	Feeder	2004	Feeder	2003
1	VAL1	3794	CRE1	7654	GFT1	6852	LEE1	6722	LEE1	5018	SEX1	7397
2	NOR1	3418	AAL2	5775	WYN1	6709	NAR1	5406	SEX1	3919	OKM4	6503
3	JOR1	3332	OSO2	4486	SEX2	6354	GLM3	4808	OKM4	3825	JOR1	5428
4	OKM1	3250	KER2	3903	HOL1	5760	CHR1	4501	SEX2	3825	DGB2	4225
5	WEB1	1905	CAS2	3840	CRE3	4237	PLA2	3813	CRA2	3692	SEX2	3340
6	JOR2	1656	LEE1	3820	OKM4	3924	STC1	3743	HOL4	3289	GLE2	2548
7	PRI4	1343	AAL1	3451	LEE1	3602	PIN2	3671	CAS2	3256	OSO1	2256
8	OKF3	1343	PRI4	3382	STC1	2811	BLU2	3382	FRU1	3066	CAS3	2241
9	GFT1	1322	BEP1	2763	STC2	2557	CRA2	3318	GLM2	3008	OSO3	1888
10	KAL1	1280	CRA1	2325	CAS1	2514	GLM2	3269	JOR1	2823	GLM2	1790

2. Major capital projects continue to affect the performance and configuration of the feeders, which makes using historical data difficult to interpret for future improvements. A Worst Performing Feeder Program should be based on fairly consistent configuration from year to year. With the FortisBC Capital Program involving many Greenfield substations and distribution growth projects, this is not the case as this time. For example, here are a list of projects that have affected the feeders listed in 2007 and 2008 alone:
 - a. VAL1 Feeder Capacity Upgrade – The upgrade of Valhalla Feeder 1 included some configuration changes and was completed in May 2009.
 - b. Big White Supply Project – This project was completed in 2008 and subsequent realignment of the Joe Rich feeders and has eliminated the JOR1 feeder.
 - c. PRI4 Feeder Upgrade – This project completed in early 2008 involved the reconductoring and conversion to three phase of older sections of the feeder.
 - d. LEE1 Feeder now has additional back up provided by the recently installed Black Mountain Substation

- e. OSO2 feeder has changed configuration due to the addition of the Nk'mip Substation.
- f. CAS2 feeder has changed configuration due to the addition of the Ootischenia Substation.

3. The final concern related to a Worst Performing Feeder Program is related to the FortisBC service area and in particular the long, rural radial distribution feeders that we need to maintain. There are several rural distribution feeders within the FortisBC service territory that have in excess of 100 km of distribution line and have increased exposure to tree, storm, animal and motor vehicle outages, and have no backup capability. These feeders (once the data is further normalized for uncontrollable events) are the ones that FortisBC would generally expect to make the Worst Performing List. However, due to the fact that they have increased exposure and no backup capabilities there are not many opportunities to make significant changes to their reliability performance.

Conclusions

At this time, FortisBC does not recommend the introduction of a Worst Performing Feeder Program to lower SAIDI and improve CAIDI for the following reasons:

1. FortisBC Normalized Distribution reliability performance continues to be maintained at acceptable levels, through a time of extensive Capital investment.
2. FortisBC's current programs involve both an unbiased proactive approach to distribution feeder condition assessment and rehabilitation as well as programs designed to address off cycle condition and growth related issues.
3. True historical performance of the reliability distribution system continues to change dramatically due to the extensive Capital program over the last 5 years.
4. CAIDI does not always provide a true measure of the length of time the average customer can expect to be without power during an interruption.
5. Finally, a Worst Performing Feeder Program focuses only on historical reliability data which may not specifically address condition, safety, growth or power quality issues that are currently captured and addressed thru the FortisBC Distribution Capital Programs. A focused program specifically on reliability will focus on feeders that will continue to have lower performance in reliability (due to length, exposure and lack of backup) and could prove more costly and less effective than the FortisBC distribution programs today.

FORTISALBERTA - FORTISBC

SERVICES AGREEMENT

This Agreement made and entered into effective this 1st day of January, 2009.

BETWEEN: FORTISALBERTA INC., a corporation duly existing under the laws of the Province of Alberta and having an office at Calgary, Alberta, ("FortisAlberta")

AND: FORTISBC INC., a company duly incorporated under the laws of the Province of British Columbia, and having an office at Kelowna, British Columbia, ("FortisBC")

WHEREAS FortisAlberta and FortisBC are affiliated corporations and FortisAlberta, from time to time, provides services to FortisBC;

AND WHEREAS the parties acknowledge and agree, that the provision of the said services is of mutual benefit to the parties;

AND WHEREAS the parties wish to confirm that the provision of services between the parties is subject to the terms and conditions set forth herein;

AND WHEREAS the parties wish to confirm that this Agreement repeals and replaces the FortisAlberta – FortisBC Shared Service Agreement dated January 1, 2006.

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the mutual covenants contained in this Agreement, FortisAlberta and FortisBC agree with each other as follows:

1. The following definitions shall apply in this Agreement unless the context clearly requires otherwise:
 - a. **Legal Responsibility** means legal liability for injury to or death of any person or persons, or damage to or destruction of any property of any person, or any other loss for which a legal remedy may exist, but does not include the responsibility for or obligations to a person imposed on an employer by statute or at common law by virtue of the existence of a contract of employment or a relationship of master and servant with that person.

- b. **Agreement** means this agreement, including all schedules attached hereto, and any amendments to this agreement or to a schedule agreed to by the parties in writing.
 - c. **Service or Services** means those services listed and described in Schedules "A" and "B" as well as any other service performed by either of the parties for the other that is not material as to value, frequency or use of resources.
 - d. **Cost Recovery Basis** means:
 - i. With respect to the use of personnel, the fully burdened costs of such personnel for the time period they are used by the other party, including salary, benefits, vacation materials disbursements and all applicable overheads;
 - ii. With respect to the use of services, the complete costs of providing the service, determined in a manner acceptable to the party receiving the service.
2. The following schedule, annexed hereto, and as amended from time to time by written agreement of the parties hereto, is incorporated in this Agreement and is a part hereof and any references to this Agreement shall mean this Agreement including such schedule:
- Schedule "A" – Terms of Training Services
Schedule "B" – Terms of Metering Services
- In the event of a conflict or inconsistency between the terms of a schedule and terms of the main body of this Agreement, the terms of the schedule shall prevail.
3. The provision of any Service by either of the parties for the other, from and after the date hereof, shall be subject to the terms and conditions of this Agreement, unless there is a written agreement between the parties in respect of the provision of a Service that specifically excludes the operation of this Agreement.
4. The parties have identified in Schedules "A" and "B" hereto a number of Services that may be provided by one party to the other, and agree to provide the Services in accordance with the terms and conditions set out in Schedules "A" and "B", as that schedule may be amended from time to time by written agreement of the parties. The party providing such Services to the other agrees to provide the Services on a Cost Recovery Basis in accordance with the terms and conditions set out in Schedules "A" and "B", and the party receiving such Services agrees to pay for such Services in accordance with Schedules "A" and "B". The Fees for the Services shall be billed and invoiced by the party providing the Services on

monthly basis or upon the completion of the Services, as the case may be. The party receiving the Services shall pay the invoice within thirty (30) days of receipt of the invoice.

5. For any other Services that may be provided by one party to the other from time to time that are not identified on Schedules "A" and "B" attached hereto, the parties agree to provide such services and to pay for such services as agreed to by the parties, and the parties will endeavour, where practical, to incorporate the terms and conditions of such Services into a revised Schedule "A".
6. Interest shall be payable on overdue amounts payable by FortisBC to FortisAlberta at the rate and on the terms approved of, from time to time, by the Alberta Energy and Utilities Board for late payment by third parties to FortisAlberta. Interest shall be payable on overdue amounts payable by FortisAlberta to FortisBC at the rate and on the terms approved of, from time to time, by the British Columbia Utilities Commission for late payment by third parties to FortisBC.
7. Any amounts payable pursuant to this Agreement are exclusive of taxes, and shall be subject to any Goods and Services Tax and Provincial Sales Tax (if applicable).
8. Should any dispute arise between the parties concerning this Agreement, the parties agree to first attempt to resolve the dispute in good faith. If within sixty (60) days of one party providing written notice of such dispute to the other party such dispute is not resolved as aforesaid, then the dispute shall immediately thereafter be referred for resolution to the President of each of the parties before resorting to any other forum for a remedy. If resolution of the dispute is not reached between the Presidents within sixty (60) days of such dispute being referred to the Presidents, then the parties shall refer the dispute to binding arbitration by a single arbitrator under the *Arbitration Act* (Alberta) which shall be held at a neutral site.
9. Any and all Service or Services provided to either of the parties by the other, or by an employee, agent or subcontractor of the party providing the Service or Services, shall be deemed, for the purposes of the determination of Legal Responsibility, to be provided by the party to whom the Service is provided. For greater certainty, any employee, agent or subcontractor of one of the parties who is or has been engaged in providing Service to the other party shall, for the purpose of the determination of Legal Responsibility, and for no other purpose, be deemed to have been an employee, agent or subcontractor, as the case may be, of the party to whom the Service is provided during all times relevant to the provision of the said Service.
10. The party to whom the Service is provided shall save, defend, keep harmless and fully indemnify the other party from and against all claims, demands,

proceedings, losses, damages, liabilities and costs, including, without limitation, reasonable solicitor's fees on a solicitor and client basis and other incidental disbursements costs, interest and expenses, which the other party may sustain, or be put to, on account of injury to or death of any person or persons, or damage to or destruction of any property of any person, arising out of or in respect of the provision of Service.

11. This Agreement will become effective upon the date first set out above and shall continue in force indefinitely thereafter, unless earlier terminated by one of the parties hereto. Either party may terminate this Agreement upon thirty (30) days advance written notice to the other party. The parties agree that the Shared Services Agreement dated January 1, 2006 between FortisAlberta and FortisBC is hereby terminated.
12. Notwithstanding the termination of this Agreement for any cause, the terms and conditions set forth in this Agreement shall survive any such termination and shall remain in force with respect to any Service that has been fully or partly performed prior to such termination.
13. In the event that any provision contained in this Agreement shall be declared invalid, illegal or unenforceable by any court of competent jurisdiction, that provision shall be ineffective to the extent of such invalidity, illegality or enforceability without invalidating the remaining provisions or affecting the validity, legality or unenforceability of the remainder of such provision.
14. This Agreement shall be binding upon the parties and their respective successors, assigns, subsidiaries and affiliates. Neither party may assign any of its rights or obligations hereunder without the prior written consent of the other party.
15. Unless otherwise stated herein, all notices, demands or requests required or permitted shall be in writing and shall be personally delivered or sent by courier-service or facsimile transmission (with the original transmitted by any of the other aforementioned delivery methods) addressed as follows:

If to FortisAlberta, to:

FortisAlberta Inc.
320 - 17th Ave. S.W.
Calgary, AB T2S 2V1
Fax: (403) 514-4001

Attention: General Counsel & Corporate Secretary

If to FortisBC, to

FortisBC Inc.
Suite 100, 1975 Springfield Road
Kelowna, B.C., V1Y 7V7
Fax: 1-866-266-7976


Attention: Vice President, Regulatory Affairs and General Counsel

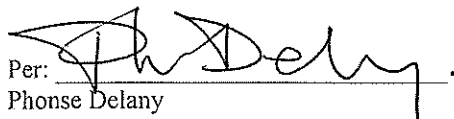
Notice received after the close of a business day shall be deemed received on the next business day.

16. Time is, and shall continue to be, of the essence.
17. This Agreement is the entire agreement between the parties as to the subject matter and supersedes any previous or contemporaneous understandings, commitments, or oral or written agreements as to the subject matter. No amendments to the terms and conditions of this Agreement shall be valid unless made in writing and signed by an authorized representative of each party.
18. This Agreement shall be construed, interpreted and enforced in accordance with, and the respective rights and obligations of the parties shall be governed by, the laws of the Province of Alberta and the federal laws of Canada applicable therein (without regard to the conflict of law rules applicable therein), and each party irrevocably and unconditionally submits to the non-exclusive jurisdiction of the courts of such province and all courts competent to hear appeals therefrom.


IN WITNESS WHEREOF the parties have executed this Agreement as of the day and year first before written.

FORTISALBERTA INC.

Per: 
Alan Skiffington
Vice President, Customer Services
VP Customer Services & C&I

Per: 
Phonse Delany
Vice-President, Operations & Engineering

FORTISBC INC.

Per: 
Michael Mulcahy
Vice President Customer & Corporate Services

Per: 
David Bennett
Vice President, Regulatory Affairs and General Counsel

Schedule "A"

Terms of Training Services

Description of Services

- FortisAlberta Employee Development Centre (EDC) – Employee Training Services
- FortisAlberta Employee Development Centre (EDC) – Apprentice Power Line Technician (PLT) Training
- Such other services as may be required by the parties to this Agreement from time to time.

Terms of Services

The use by either FortisAlberta or FortisBC of the other's personnel and use by FortisAlberta or FortisBC of the other's services shall be on a Cost Recovery Basis in accordance with the following terms:

Description of Service provided by FortisAlberta	Fee for Service	Intercompany Charge / Invoicing
Training – Employee Development Centre ("EDC") Personnel Services	Hourly activity rate based on average base salary for the employee's salary grade plus burden of 75%.	Monthly invoice based on time sheet activity.
Training – EDC - Apprentice Power Line Technician (PLT) Training	<p>Fees payable shall be for each FortisBC Apprentice PLT according to the following:</p> <p>1st Year Apprentices: \$2,065.83 per Apprentice 2nd Year Apprentices: \$2,416.12 per Apprentice 3rd Year Apprentices: \$2,282.04 per Apprentice</p> <p>The fees are inclusive of all costs relating to Apprentice Training, including instructor time and materials, but does not include amounts payable by FortisAlberta for meals provided to Apprentice PLTs while at the EDC which shall be billed separately to FortisBC.</p> <p>The Apprentice fees are subject to annual adjustments to reflect the fully burdened affiliate rates charged for instructor time.</p>	Monthly invoice following completion of Apprentice PLT Training

For all other services:

- The Fee for Services for the use of personnel shall be the employee's Hourly Activity Rate calculated in accordance with the average base salary for that

employee's salary grade plus a percentage of that amount to account for fully burdened costs of the employee's services.

- The Fee for Services other than personnel shall be on a Cost Recovery Basis calculated in a manner that is acceptable to the party providing the service.

Schedule "B"

Terms of Metering Services

1.0 Services

- 1.1 FortisAlberta hereby agrees to provide services as described below relating to the calibration and/or verification of Meters at the times and in accordance with published Revenue metering procedures, applicable statutes and regulations (the "Act or any associated Regulations"), and on the terms and conditions set out in this Schedule "B" (the "Terms and Conditions"). If there is any conflict between a provision in these Terms and Conditions and a provision in the main body of the Agreement, the provision in these Terms and Conditions shall govern.
- 1.2 FortisAlberta shall perform services in relation to the following:
- a) Device Management: includes updating of seal records, management of the retest programs, acceptance programs and compliance programs;
 - b) Meter Purchase Forecasts (New Meter Purchases): Meter Purchase Forecasts would be provided by FortisAlberta, new meters will be acceptance sampled by FortisAlberta and issued to FortisBC as required, all meter purchases are made by FortisBC;
 - c) Quality Assurance program (S-A-01): including support for annual training, documentation and Measurement Canada compliance and reporting requirements;
 - d) Meter shop services to include the verification and re-verification of meters;
 - e) Material services, storage (un-sealed and in process meters), SAP material movements of material between Acheson, Trail and Kelowna;
 - f) Metering retirement: includes retirement forecasts, disposal and reporting;
 - g) Coordination of annual Measurement Canada requirements to include, Internal Audit, Measurement Canada Audit and Federal Market Place Monitoring;
 - h) Define Meter configurations and maintain meter items in SAP;
 - i) Interval metering data storage and processing related to the MV90 system (including associated software maintenance, information technology ("IT") system support, IT server support and meter data management support services);
 - j) Represent FortisBC regarding any federal initiatives including CEA and Measurement Canada;
 - k) Annual Management review; and
 - l) Support of FortisBC Meter Service Contracts: Includes support for Client Service Contracts, such as the City of Kelowna.

2.0 Affiliate Invoicing Mechanism – Meter Services

Description of Service	Fee for Service	Intercompany Charge / Invoicing
Meter Services as described in Schedule B (1.2)	Hourly activity rate based on average base salary for the employee's salary grade plus burden of 60%. Travel and/or contractor (internal audit) costs to be invoiced, based on cost recovery.	Monthly invoice based on time sheet activity as recorded in work order.

3.0 Term

- 3.1 Despite section 12 of the Agreement, the term for the provision of meter services described in this Schedule "B" shall remain in full force and effect for a term of one (1) year and shall automatically renew for successive one (1) year periods unless either party notifies the other of the intention to terminate by giving thirty (30) days written notice prior to the end of the existing term. In addition, either party may terminate the provision of meter services for any reason by providing at least ninety (90) days prior written notice to the other party, with the exception of Section 1.2(i) of Schedule "B", for which the relevant notice period will be at least six (6) months.

These Terms and Conditions incorporate the definition of terms as they are contained in the Act or any associated Regulations, as may be in force from time to time.

THIS AGREEMENT is made effective May 1, 2008

BETWEEN:

TERASEN GAS INC., a corporation formed under the laws of British Columbia having an office at 16705 Fraser Highway, Surrey, British Columbia

the ("TGI")

AND:

FORTISBC INC., a corporation formed under the laws of British Columbia, having an office at Suite 100, 1975 Springfield Road, Kelowna, British Columbia, V1Y 7V7

("FBC")

WHEREAS

- A. FBC requires assistance in meeting property tax filing requirements and as such wishes to retain TGI to provide property tax services on an as and when required basis.
- B. TGI is willing to provide tax services as required.

WITNESSES THAT, in consideration of the covenants and agreements herein contained, the parties covenant and agree as follows:

**PART 1
INTERPRETATION**

1.1 Definitions

In and for the purpose of this Agreement

- (a) **"Applicable Laws"** means any and all Laws in force and effect from time to time and applicable to the Facilities and the performance of the Services hereunder;
- (b) **"Force Majeure"** has the meaning assigned to such term in Section 9.1;
- (c) **"Governmental Authority"** means any domestic or foreign, national, federal, provincial, state, municipal or other local government or body and any division, agent, commission, board, or authority of any quasi-governmental or private body exercising any statutory, regulatory, expropriation or taxing authority under the authority of any of the foregoing, and any domestic, foreign, international, judicial, quasi-

judicial, arbitration or administrative court, tribunal, commission, board or panel acting under the authority of any of the foregoing;

- (d) **"Laws"** means all constitutions, treaties, laws, statutes, codes, ordinances, orders, decrees, rules, regulations and municipal by-laws, whether domestic, foreign or international, any judgements, orders, writs, injunctions, decision, rulings, decrees, and awards of any Governmental Authority, and any published policies or guidelines of any Governmental Authority and including, without limitation, any principles of common law and equity,
- (e) **"Person"** includes any individual, corporation, body corporate, partnership, joint venture, association, trust, estate, incorporated or unincorporated association, any government or governmental authority however designated or constituted or any other entity of whatever nature,
- (f) **"Services"** means the professional and management services to be provided to FBC by TGI as more particularly described in Section 2.1.

1.2 Schedules

Schedule "A" is attached to, and is incorporated by reference into, this Agreement.

1.3 Interpretation

In and for the purpose of this Agreement

- 1) this "Agreement" means this agreement as the same may from time to time be modified, supplemented or amended in effect,
- 2) any reference in this Agreement to a designated "Article", "section" or other subdivision is to the designated Article, section or other subdivision of this Agreement,
- 3) the words "herein", "hereof" and "hereunder" and other words of similar import refer to this Agreement as a whole and not to any particular Article, section or other subdivision,
- 4) the headings are for convenience only and do not form a part of this Agreement and are not intended to interpret, define or limit the scope, extent or intent of this Agreement,
- 5) the singular of any term includes the plural, and vice versa, the use of any term is generally applicable to any gender and, where applicable, a corporation, the word "or" is not exclusive and the word "including" is not limiting (whether or not non-limiting language (such as "without limitation" or "but not limited to" or words of similar import) is used with reference thereto), and
- 6) each word and phrase used herein and not otherwise defined herein, but which has an accepted meaning in the custom and usage of the Western Canadian oil and gas transportation industry, shall have such accepted meaning.

1.4 Governing Law

Subject to Section 9.1, this Agreement will be interpreted and the rights and remedies of the parties hereto will be determined in accordance with the laws of the Province of British Columbia.

PART 2 SERVICES

2.1 Services

TGI hereby agrees to provide to FBC those professional services described in Schedule "A".

2.2 No Obligation to Provide Additional Services

TGI shall not perform, and TGI shall have no obligation to perform, any services on behalf of FBC other than as set out in this Agreement or any similar agreement.

2.3 Consultation with FBC

TGI will consult with FBC as required in connection with the performance of the Services.

2.4 Independent Contractor

Nothing in this Agreement shall be construed to create or constitute a partnership or relationship of joint venture between TGI and FBC. In performing the Services, TGI shall be an independent contractor. TGI employees shall not be considered employees of FBC for any purpose.

2.5 Compliance

In performing the Services, TGI will comply with all Applicable Laws.

PART 3 COMPENSATION

3.1 Compensation for Services and Shared Costs

FBC agrees to pay to TGI for the Services as set out in Schedule "A" at the rates set out in Schedule "B", which are in accordance with TGI's Transfer Pricing Policy, which may be amended from time to time, and are approved by the British Columbia Utilities Commission.

3.2 Amendment to Costs

The amounts may be amended from time to time by agreement between the parties to reflect any material change in the cost of providing the Services.

3.3 Invoicing

TGI will invoice FBC in respect of the Services no later than the 25th day following the end of the month in which such Services are provided or in such other manner as the parties may agree.

3.4 Payment

(a) Except with respect to those portions of an Invoice which are the subject of a bona fide dispute between the parties, invoices shall be payable within thirty (30) days after receipt of the invoice.

(b) Any amount to be remitted by FBC to TGI and not remitted on or before the date on which it is due shall thereafter bear interest. A late payment charge of 1.5% per month (18% per annum) will be charged on any unpaid balance after thirty (30) days of the date of invoice.

(c) Each year TGI will prepare financial accounting of the actual costs and the allocated costs, and will make adjustments based on TGI's application of the Transfer Pricing Policy.

(d) Payments due and owing as a result of the accounting in excess of the Estimated Budgeted Price set out in Schedule "B" will be paid by FBC no later than the end of the second quarter of the following year.

(e) In the event FBC does not use all the hours allocated for the Services, FBC will pay TGI for the hours used at the hourly rate set out in Schedule "B" and the difference between the actual hours used at the hourly rate set out in Schedule "B" and the Estimated Budgeted Price.

3.5 Taxes

Notwithstanding any other provision of this Agreement, the amounts paid or payable by one party to the other in accordance with this Agreement are exclusive of any value added taxes or sales taxes, which are now, or may become during the term of this Agreement, applicable to the provision of the Services. Each party shall pay to the other party any value added taxes or sales tax which one party is obligated to collect from the other at the time such taxes are due and payable.

PART 4

INDEMNIFICATION AND LIMITATION OF LIABILITY

4.1 Indemnity by FBC

Subject to Section 4.4, FBC will indemnify, defend and hold harmless TGI and its directors, officers, employees, agents and contractors, from and against any claim, demand, loss, liability, action, lawsuit or other proceeding, judgement or award, and cost or expense (including reasonable legal fees and disbursements) which they may suffer or incur arising directly or indirectly, in whole or in part, in connection with this Agreement or with TGI's provision of the Services, except and to the extent, if any, that the same results from or arises out of the wilful misconduct or negligence of TGI.

4.2 Limitation of Liability of TGI

Neither TGI nor any of its directors, officers, employees, agents or contractors will be liable to FBC for any claim, demand, loss, liability, action, lawsuit or other proceeding, judgement or award, or cost or expense (including reasonable legal fees and disbursements) which FBC may suffer or incur arising directly or indirectly, in whole or in part, in connection with this Agreement or with TGI's provision of the Services, except and to the extent, if any, that the same results from or arises out of the wilful misconduct or negligence of TGI.

4.3 Indemnity by TGI

Subject to Section 4.4, TGI will indemnify, defend and hold harmless FBC, its directors, officers, employees, agents and contractors, from and against any claim, demand, loss, liability, action, lawsuit or other proceeding, judgement or award and cost or expense (including reasonable legal fees and disbursements) which they may suffer or incur as a result of any act or omission or error of judgement as a result of which TGI is adjudged to have been guilty of wilful misconduct or gross negligence.

4.4 Consequential Losses

Each party acknowledges and agrees that notwithstanding anything else in this Agreement and except for the parties' obligations of confidentiality and indemnification for infringement, in no event shall a party or any of their officers, directors, employees, shareholders, agents, or representatives be liable to the other party, any of its affiliates, or any other party for any special, indirect, incidental, exemplary, or consequential damages or loss of goodwill whether such liability is based on contract, tort, negligence, strict liability, products liability or otherwise, in any way arising from or relating to this Agreement or resulting from the use of or inability to use the products or the performance or non-performance of the Services, including the failure of essential purpose, even if the party has been notified of the possibility or likelihood of such damages occurring.

PART 5

COVENANTS OF FBC

5.1 Covenants by FBC

FBC covenants and agrees to:

- (a) fully co-operate with TGI in respect of all matters contemplated by or within the scope of this Agreement; and

- (b) pay on or before the due date thereof all amounts payable by FBC to TGI or any other Person pursuant to or as contemplated by this Agreement.

PART 6

REPRESENTATIONS AND WARRANTIES

6.1 Representations and Warranties of TGI

TGI hereby represents and warrants to FBC as representations and warranties which are true as at the date hereof and which will be true during the term of TGI's appointment hereunder:

- (a) TGI is a corporation duly organized, validly existing and in good standing under the laws of its jurisdiction of incorporation, and TGI has full power and authority to perform its obligations hereunder;
- (b) this Agreement constitutes a valid and binding obligation of TGI enforceable in accordance with its terms, except that (i) such enforcement may be subject to bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to creditors' rights, and (ii) the remedy of specific performance and injunctive or other forms of equitable relief may be subject to equitable defences and to the discretion of the court before which any proceeding therefore may be brought; and
- (c) TGI possesses all of the skills and personnel required to provide the Services.

6.2 Representations and Warranties of FBC

FBC hereby represents and warrants to TGI as representations and warranties which are true as at the date hereof and which will be true during the term of TGI's appointment hereunder:

- (a) FBC is a corporation duly organized, validly existing and in good standing under the laws of its jurisdiction of incorporation, and FBC has full power and authority to perform its obligations hereunder; and
- (b) this Agreement constitutes a valid and binding obligation of FBC enforceable in accordance with its terms, except that (i) such enforcement may be subject to bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to creditors' rights, and (ii) the remedy of specific performance and injunctive or other forms of equitable relief may be subject to equitable defences and to the discretion of the court before which any proceeding therefore may be brought.

PART 7

DURATION, TERMINATION AND DEFAULT

7.1 Effective Date and Term

This Agreement will be effective from May 1, 2008 and will end on December 31, 2008, unless earlier terminated pursuant to the provisions hereof. Thereafter the Agreement will automatically be renewed for further one (1) year terms subject to Section 7.2 below.

7.2 Termination

This Agreement may be terminated as follows:

- (a) by TGI giving FBC fifteen (15) days written notice of such termination if FBC becomes insolvent, admits in writing its inability to pay its debts as they become due or commits or threatens to commit an act of bankruptcy or if FBC makes a general assignment for the benefit of creditors, or any proceeding is instituted by or against FBC seeking to adjudicate it a bankrupt or an insolvent or seeking the dissolution, winding-up or liquidation of FBC or a reorganization, arrangement, moratorium, adjustment, compromise, readjustment of debt or composition of it or its debts under any law relating to bankruptcy, insolvency, moratorium, reorganization or relief of debtors or seeking the appointment of a receiver, receiver-manager, interim receiver, trustee, custodian, liquidator or other similar official or Person for it, or FBC consents by answer, acquiescence or otherwise to the institution of any such proceeding against it; or
- (b) by TGI in the event FBC breaches this Agreement and fails to cure such breach within thirty (30) days after receipt by FBC of written notice thereof from TGI or, if such breach is not capable of being cured within such thirty (30) day period, fails to commence in good faith the curing of such breach forthwith upon receipt of written notice thereof from TGI and to continue to diligently pursue the curing of such breach thereafter until cured and, in either case, the allegation of TGI that FBC is in breach is conceded to be correct by FBC or found to be correct by an arbitrator pursuant to Section 8.1;
- (c) by FBC giving TGI fifteen (15) days written notice of such termination if TGI becomes insolvent, admits in writing its inability to pay its debts as they become due or commits or threatens to commit an act of bankruptcy or if TGI makes a general assignment for the benefit of creditors, or any proceeding is instituted by or against TGI seeking to adjudicate it a bankrupt or an insolvent or seeking the dissolution, winding-up or liquidation of TGI or a reorganization, arrangement, moratorium, adjustment, compromise, readjustment of debt or composition of it or its debts under any law relating to bankruptcy, insolvency, moratorium, reorganization or relief of debtors or seeking the appointment of a

receiver, receiver-manager, interim receiver, trustee, custodian, liquidator or other similar official or Person for it, or TGI consents by answer, acquiescence or otherwise to the institution of any such proceeding against it; or

- (d) by FBC in the event TGI breaches this Agreement and fails to cure such breach within thirty (30) days after receipt by TGI of written notice thereof from FBC or, if such breach is not capable of being cured within such thirty (30) day period, fails to commence in good faith the curing of such breach forthwith upon receipt of written notice thereof from FBC and to continue to diligently pursue the curing of such breach thereafter until cured and, in either case, the allegation of FBC that TGI is in breach is conceded to be correct by TGI or found to be correct by an arbitrator pursuant to Section 8.1.
- (e) by either FBC or TGI in their sole and absolute discretion at any time by giving six (6) months notice after receipt by either FBC or TGI of written notice thereof from the other party. Such termination shall not affect any rights of the parties which have accrued prior to the date of termination and shall not relieve any party from its obligations which have arisen during the term of this Agreement.

7.3 Duties Upon Termination

Upon expiry or termination of this Agreement for any reason, TGI will have no further obligations under Article 2 and will promptly deliver to FBC any material documents in the possession of TGI pertaining to the business of FBC.

7.4 Compensation of TGI on Expiry or Termination

Within one (1) month after the expiry or termination of this Agreement, FBC will pay to TGI all amounts owing to TGI hereunder (including any amount owing on account of the fees provided for in Article 3 calculated up to the date of expiry or termination); provided that for the purposes of this section, the fees provided for in Article 3 which are payable to TGI on a monthly, annual or other periodic basis will be deemed to accrue due and be payable on a daily basis.

PART 8 ARBITRATION

8.1 Arbitration

For purposes of Section 7.2, any dispute between TGI and FBC regarding any allegation that FBC or TGI is in breach of this Agreement, may be submitted to and settled by arbitration in accordance with the provisions of this Section 8.1. Arbitration proceedings may be commenced by the party desiring arbitration giving notice to the other party specifying the matter to be arbitrated and requesting arbitration thereof. Such arbitration will be carried out by a single arbitrator and in accordance with the rules of

National Arbitration Rules of the ADR Institute of Canada Inc. from time to time in force and effect. If the parties are unable to agree upon an arbitrator within ten (10) days after delivery of such notice, either of them may make application to court for appointment of an arbitrator. In the event of the failure, refusal or inability of an arbitrator to act, or continue to act, a new arbitrator will be appointed, which appointment will be made in the same manner as provided above. The decision of an arbitrator appointed as under this Section 8.1 will be final and binding upon the parties and not subject to appeal. The arbitrator will have the authority to assess the costs of the arbitration against either or both of the parties, provided that each party will bear its own witness and counsel fees. The parties will fully co-operate with the arbitrator and provide all information reasonably requested by the arbitrator. Judgement on the award of the arbitrator may be entered in any court having jurisdiction over the party against which enforcement of the award is being sought. Each party hereby irrevocably submits and consents to the jurisdiction of any such court for the purpose of rendering a judgement of any such award.

PART 9

FORCE MAJEURE

9.1 Force Majeure

In and for the purposes of this Agreement, "Force Majeure" shall mean anyone or more of the following events:

- (a) an act of God;
- (b) a war, revolution, insurrection, riot, blockade, or any other unlawful act against public order or authority;
- (c) a strike, lockout or other industrial disturbance;
- (d) a storm, fire, flood, explosion, earthquake or lightning;
- (e) a governmental restraint; or
- (f) any other event (whether or not of the kind enumerated in 9.1(a) to (e) above) which is not reasonably within the control of the party hereto claiming suspension of its obligations hereunder due to Force Majeure.

9.2 Performance Prevented by Force Majeure

If either party hereto is prevented by Force Majeure from carrying out any of its obligations hereunder, the obligations of such party, insofar as its obligations are affected by Force Majeure, shall be suspended while (but only so long as) Force Majeure continues to prevent the performance of such obligations. Any party prevented from carrying out any obligation by Force Majeure shall promptly give the other party hereto notice of Force Majeure including reasonably full particulars thereof.

9.3 Remedy of Force Majeure

A party claiming suspension of its obligations by reason of Force Majeure shall promptly remedy the cause and effect of Force Majeure described in the notice given pursuant to Section 9.2 insofar as such party is reasonably able so to do, provided that the terms of settlement of any strike, lockout or other industrial disturbance shall be wholly in the discretion of the party hereby claiming suspension of its obligations hereunder by reason thereof; and that such party shall not be required to accede to the demands of its opponents in any strike, lockout or industrial disturbance solely to remedy promptly Force Majeure thereby constituted.

9.4 Lack of Funds Not Force Majeure

Notwithstanding anything contained in this Article 9, lack of finances shall not be considered Force Majeure nor shall Force Majeure suspend any obligation for the payment of money due hereunder.

PART 10 MISCELLANEOUS

10.1 Notice

Any notice, direction or other communication required or permitted to be given hereunder must be in writing and will be sufficiently given if delivered or sent by facsimile to the party from whom it is intended at the address of such party shown on the first page of this Agreement. Any notice, direction or other communication so given will be deemed to have been given and to have been received on the day of delivery, if delivered, or on the day of sending if sent by facsimile (provided such day of delivery or sending is a Business Day and, if not, then on the first Business Day thereafter). Each party hereto may change its address for notice by notice given in the manner aforesaid.

10.2 Assignment

Neither party hereto may assign this Agreement or any of its rights hereunder without the prior written consent of the other party, such consent not to be unreasonably withheld.

10.3 Amendments

Any amendment or modification of this Agreement must be in writing and signed by the party against which such amendment or modification is sought to be enforced.

10.4 Severability

If any term or condition of this Agreement or the application hereof is determined judicially or otherwise to be invalid or unenforceable, the remainder of this Agreement and the application thereof shall not be affected and shall remain in full force and effect.

10.5 Entire Agreement

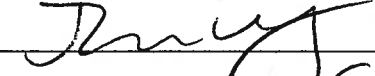
This Agreement constitutes the entire agreement between the parties pertaining to the subject matter hereof. There are no representations, warranties, covenants or agreements between the parties in connection with such subject matter except as specifically set forth or referred to in this Agreement.

10.6 Counterparts, Facsimile

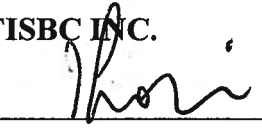
This Agreement may be executed by the execution of one or more counterparts of the execution page, which will be taken together and constitute the execution page, and one or more of such counterparts may be delivered by facsimile transmission.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement effective the 1st day of May, 2008.

TERASEN GAS INC.

By: 
Title: DIRECTOR, FINANCE AND PLANNING

FORTISBC INC.

By: 
Title: Mgr, Treasury & Corporate Reporting.

Schedule “A”

Scope of Services

1. GENERAL

1.1 TGI will provide FBC property tax services as follows:

- a) manage regular property tax filing requirements with responsibilities including:
 - (i) reviewing notice of assessment;
 - (ii) reviewing property tax estimates; and
 - (iii) providing information to the assessment authorities.

1.2 TGI will provide FBC with 500 hours in 2008.

Schedule “B”

Scope of Services

Individual Charge	Total Hours	Hourly Rate Loaded	Overhead	Facilities Use
Norm Stickleman	500	\$57.47	10%* hourly rate	\$100/day*

* Based on 7.5 hrs/day

ESTIMATED BUDGETED PRICE: \$41,775 Plus Applicable Taxes

CORPORATE SERVICES CONTRACT – EXECUTIVE SERVICES

THIS AGREEMENT is made effective the 1st day of January, 2009.

BETWEEN:

TERASEN INC., a corporation formed under the laws of British Columbia having an office at 1000-1111 West Georgia Street, Vancouver, British Columbia, V6E 4M3

(hereinafter "TI")

AND:

FORTISBC INC., a corporation formed under the laws of British Columbia, having an office at Suite 100, 1975 Springfield Road, Kelowna, British Columbia, V1Y 7V7

(hereinafter "FBC")

WHEREAS

- A. TI and FBC each require certain executive services on an as required basis.
- B. FBC is willing to provide the Services to TI on the terms and conditions contained in this Agreement.

WITNESSETH THAT, in consideration of the covenants and agreements herein contained, the parties covenant and agree as follows:

PART 1

INTERPRETATION

1.1 Definitions

In and for the purpose of this Agreement

- (a) **"Applicable Laws"** means any and all Laws in force and effect from time to time and applicable to the Facilities and the performance of the Services hereunder;
- (b) **"Force Majeure"** has the meaning assigned to such term in Section 9.1;
- (c) **"Governmental Authority"** means any domestic or foreign, national, federal, provincial, state, municipal or other local

government or body and any division, agent, commission, board, or authority of any quasi-governmental or private body exercising any statutory, regulatory, expropriation or taxing authority under the authority of any of the foregoing, and any domestic, foreign, international, judicial, quasi-judicial, arbitration or administrative court, tribunal, commission, board or panel acting under the authority of any of the foregoing;

- (d) **"Laws"** means all constitutions, treaties, laws, statutes, codes, ordinances, orders, decrees, rules, regulations and municipal by-laws, whether domestic, foreign or international, any judgements, orders, writs, injunctions, decision, rulings, decrees, and awards of any Governmental Authority, and any published policies or guidelines of any Governmental Authority and including, without limitation, any principles of common law and equity,
- (e) **"Person"** includes any individual, corporation, body corporate, partnership, joint venture, association, trust, estate, incorporated or unincorporated association, any government or governmental authority however designated or constituted or any other entity of whatever nature,
- (f) **"Services"** means the services of Vice-President, General Counsel & Corporate Secretary to be provided to TI by FBC.

1.2 Interpretation

In and for the purpose of this Agreement

- 1) this "Agreement" means this agreement as the same may from time to time be modified, supplemented or amended in effect,
- 2) any reference in this Agreement to a designated "Article", "section" or other subdivision is to the designated Article, section or other subdivision of this Agreement,
- 3) the words "herein", "hereof" and "hereunder" and other words of similar import refer to this Agreement as a whole and not to any particular Article, section or other subdivision,
- 4) the headings are for convenience only and do not form a part of this Agreement and are not intended to interpret, define or limit the scope, extent or intent of this Agreement,
- 5) the singular of any term includes the plural, and vice versa, the use of any term is generally applicable to any gender and, where applicable, a corporation, the word "or" is not exclusive and the word "including" is not limiting (whether or not non-limiting language (such as

"without limitation" or "but not limited to" or words of similar import) is used with reference thereto), and

- 6) each word and phrase used herein and not otherwise defined herein, but which has an accepted meaning in the custom and usage of the Western Canadian oil and gas transportation industry, shall have such accepted meaning.

1.3 Governing Law

Subject to Section 9.1, this Agreement will be interpreted and the rights and remedies of the parties hereto will be determined in accordance with the laws of the Province of British Columbia.

PART 2 SERVICES

2.1 Services

FBC hereby agrees to provide to TI the Services.

2.2 No Obligation to Provide Additional Services

FBC shall not perform, and FBC shall have no obligation to perform, any services on behalf of TI other than as set out in this Agreement or any similar agreement.

2.3 Consultation with FBC

FBC will consult with TI as required in connection with the performance of the Services.

2.4 Independent Contractor

Nothing in this Agreement shall be construed to create or constitute a partnership or relationship of joint venture between FBC and TI. In performing the Services, FBC shall be an independent contractor. FBC employees shall not be considered employees of TI for any purpose.

2.5 Compliance

In performing the Services, FBC will comply with all Applicable Laws.

PART 3

COMPENSATION

3.1 Compensation for Services and Shared Costs

TI agrees to pay to FBC for the Services annual compensation and reimbursement of all reasonable expenses related to the Services as invoiced monthly by FBC (which are in accordance with FBC's Transfer Pricing Policy), which compensation may be amended from time to time.

3.2 Amendment to Costs

The amounts payable under Section 3.1 may be amended from time to time by agreement between the parties to reflect any material change in the cost of providing the Services and to reflect annual inflationary adjustments. Any services to be provided that are not contemplated under this Agreement shall be subject to additional compensation as agreed between the parties and form an amendment to this Agreement in accordance with Subsection 10.3 below.

3.3 Invoicing

FBC will invoice TI in respect of the Services no later than the 25th day following the end of the month in which such Services are provided or in such other manner as the parties may agree.

3.4 Payment

- (a) Except with respect to those portions of an invoice which are the subject of a bona fide dispute between the parties, TI shall within thirty (30) days after receipt of an invoice from FBC, pay to FBC the amount specified in such invoice.
- (b) Any amount to be remitted by TI to FBC and not remitted on or before the date on which it is due shall thereafter bear interest. A late payment charge of 1.5% per month (18% per annum) shall be payable to FBC on any unpaid balance after thirty (30) days of the date of invoice.

3.5 Taxes

Notwithstanding any other provision of this Agreement, the amounts paid or payable by one party to the other in accordance with this Agreement are exclusive of any value added taxes or sales taxes, which are now, or may become during the term of this Agreement, applicable to the provision of the Services. Each party shall pay to the other party any

value added taxes or sales tax which one party is obligated to collect from the other at the time such taxes are due and payable.

PART 4

INDEMNIFICATION AND LIMITATION OF LIABILITY

4.1 Indemnity by TI

Subject to Section 4.4, TI will indemnify, defend and hold harmless FBC and its directors, officers, employees, agents and contractors, from and against any claim, demand, loss, liability, action, lawsuit or other proceeding, judgement or award, and cost or expense (including reasonable legal fees and disbursements) which they may suffer or incur arising directly or indirectly, in whole or in part, in connection with this Agreement or with FBC's provision of the Services, except and to the extent, if any, that the same results from or arises out of the wilful misconduct or negligence of FBC.

4.2 Limitation of Liability of FBC

Neither FBC nor any of its directors, officers, employees, agents or contractors will be liable to TI for any claim, demand, loss, liability, action, lawsuit or other proceeding, judgement or award, or cost or expense (including reasonable legal fees and disbursements) which TI may suffer or incur arising directly or indirectly, in whole or in part, in connection with this Agreement or with FBC's provision of the Services, except and to the extent, if any, that the same results from or arises out of the wilful misconduct or negligence of FBC.

4.3 Indemnity by FBC

Subject to Section 4.4, FBC will indemnify, defend and hold harmless TI, its directors, officers, employees, agents and contractors, from and against any claim, demand, loss, liability, action, lawsuit or other proceeding, judgement or award and cost or expense (including reasonable legal fees and disbursements) which they may suffer or incur as a result of any act or omission or error of judgement as a result of which FBC is adjudged to have been guilty of wilful misconduct or gross negligence.

4.4 Consequential Losses

Each party acknowledges and agrees that notwithstanding anything else in this Agreement and except for the parties' obligations of confidentiality and indemnification for infringement, in no event shall a party or any of their officers, directors, employees, shareholders, agents, or

representatives be liable to the other party, any of its affiliates, or any other party for any special, indirect, incidental, exemplary, or consequential damages or loss of goodwill whether such liability is based on contract, tort, negligence, strict liability, products liability or otherwise, in any way arising from or relating to this Agreement or resulting from the use of or inability to use the products or the performance or non-performance of the Services, including the failure of essential purpose, even if the party has been notified of the possibility or likelihood of such damages occurring.

PART 5 COVENANTS OF TI

5.1 Covenants of TI

TI covenants and agrees to:

- (a) fully co-operate with FBC in respect of all matters contemplated by or within the scope of this Agreement; and
- (b) pay on or before the due date thereof all amounts payable by TI to FBC or any other Person pursuant to or as contemplated by this Agreement.

PART 6 REPRESENTATIONS AND WARRANTIES

6.1 Representations and Warranties of FBC

FBC hereby represents and warrants to TI as representations and warranties which are true as at the date hereof and which will be true during the term of FBC's appointment hereunder:

- (a) FBC is a corporation duly organized, validly existing and in good standing under the laws of its jurisdiction of incorporation, and FBC has full power and authority to perform its obligations hereunder;
- (b) this Agreement constitutes a valid and binding obligation of FBC enforceable in accordance with its terms, except that (i) such enforcement may be subject to bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to creditors' rights, and (ii) the remedy of specific performance and injunctive or other forms of equitable relief may

be subject to equitable defences and to the discretion of the court before which any proceeding therefore may be brought; and

- (c) FBC possesses all of the skills and personnel required to provide the Services.

6.2 Representations and Warranties of TI

TI hereby represents and warrants to FBC as representations and warranties which are true as at the date hereof and which will be true during the term of FBC's appointment hereunder:

- (a) TI is a corporation duly organized, validly existing and in good standing under the laws of its jurisdiction of incorporation, and TI has full power and authority to perform its obligations hereunder; and
- (b) this Agreement constitutes a valid and binding obligation of TI enforceable in accordance with its terms, except that (i) such enforcement may be subject to bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to creditors' rights, and (ii) the remedy of specific performance and injunctive or other forms of equitable relief may be subject to equitable defences and to the discretion of the court before which any proceeding therefore may be brought.

PART 7

DURATION, TERMINATION AND DEFAULT

7.1 Effective Date and Term

This Agreement will be effective from January 1, 2009 and will end on December 31, 2009, unless earlier terminated pursuant to the provisions hereof. Thereafter this Agreement will automatically be renewed for further one (1) year terms subject to Section 7.2 below.

7.2 Termination

This Agreement may be terminated as follows:

- (a) by FBC giving TI fifteen (15) days written notice of such termination if TI becomes insolvent, admits in writing its inability to pay its debts as they become due or commits or threatens to commit an act of bankruptcy or if TI makes a general assignment for the benefit of creditors, or any proceeding is instituted by or against TI seeking to adjudicate it a bankrupt or an insolvent or seeking the dissolution, winding-up or liquidation of TI or a

reorganization, arrangement, moratorium, adjustment, compromise, readjustment of debt or composition of it or its debts under any law relating to bankruptcy, insolvency, moratorium, reorganization or relief of debtors or seeking the appointment of a receiver, receiver-manager, interim receiver, trustee, custodian, liquidator or other similar official or Person for it, or TI consents by answer, acquiescence or otherwise to the institution of any such proceeding against it; or

- (b) by FBC in the event TI breaches this Agreement and fails to cure such breach within thirty (30) days after receipt by TI of written notice thereof from FBC or, if such breach is not capable of being cured within such thirty (30) day period, fails to commence in good faith the curing of such breach forthwith upon receipt of written notice thereof from FBC and to continue to diligently pursue the curing of such breach thereafter until cured and, in either case, the allegation of FBC that TI is in breach is conceded to be correct by TI or found to be correct by an arbitrator pursuant to Section 8.1;
- (c) by TI giving FBC fifteen (15) days written notice of such termination if FBC becomes insolvent, admits in writing its inability to pay its debts as they become due or commits or threatens to commit an act of bankruptcy or if FBC makes a general assignment for the benefit of creditors, or any proceeding is instituted by or against FBC seeking to adjudicate it a bankrupt or an insolvent or seeking the dissolution, winding-up or liquidation of FBC or a reorganization, arrangement, moratorium, adjustment, compromise, readjustment of debt or composition of it or its debts under any law relating to bankruptcy, insolvency, moratorium, reorganization or relief of debtors or seeking the appointment of a receiver, receiver-manager, interim receiver, trustee, custodian, liquidator or other similar official or Person for it, or FBC consents by answer, acquiescence or otherwise to the institution of any such proceeding against it; or
- (d) by TI in the event FBC breaches this Agreement and fails to cure such breach within thirty (30) days after receipt by FBC of written notice thereof from TI or, if such breach is not capable of being cured within such thirty (30) day period, fails to commence in good faith the curing of such breach forthwith upon receipt of written notice thereof from TI and to continue to diligently pursue the curing of such breach thereafter until cured and, in either case, the allegation of TI that FBC is in breach is conceded to be correct by FBC or found to be correct by an arbitrator pursuant to Section 8.1.

- (e) by either FBC or TI in their sole and absolute discretion at any time by giving six (6) months notice after receipt by either FBC or TI of written notice thereof from the other party. Such termination shall not affect any rights of the parties which have accrued prior to the date of termination and shall not relieve any party from its obligations which have arisen during the term of this Agreement.

7.3 Duties Upon Termination

Upon expiry or termination of this Agreement for any reason, FBC will have no further obligations under Article 2 and will promptly deliver to TI any material documents in the possession of FBC pertaining to the business of TI.

7.4 Compensation of FBC on Expiry or Termination

Within one (1) month after the expiry or termination of this Agreement, TI will pay to FBC all amounts owing to FBC hereunder (including any amount owing on account of the fees provided for in Article 3 calculated up to the date of expiry or termination); provided that for the purposes of this section, the fees provided for in Article 3 which are payable to FBC on a monthly, annual or other periodic basis will be deemed to accrue due and be payable on a daily basis.

PART 8 ARBITRATION

8.1 Arbitration

For purposes of Section 7.2, any dispute between TI and FBC regarding any allegation that FBC or TI is in breach of this Agreement, may be submitted to and settled by arbitration in accordance with the provisions of this Section 8.1. Arbitration proceedings may be commenced by the party desiring arbitration giving notice to the other party specifying the matter to be arbitrated and requesting arbitration thereof. Such arbitration will be carried out by a single arbitrator and in accordance with the rules of National Arbitration Rules of the ADR Institute of Canada Inc. from time to time in force and effect. If the parties are unable to agree upon an arbitrator within ten (10) days after delivery of such notice, either of them may make application to court for appointment of an arbitrator. In the event of the failure, refusal or inability of an arbitrator to act, or continue to act, a new arbitrator will be appointed, which appointment will be made in the same manner as provided above. The decision of an arbitrator appointed as under this Section 8.1 will be final and binding

upon the parties and not subject to appeal. The arbitrator will have the authority to assess the costs of the arbitration against either or both of the parties, provided that each party will bear its own witness and counsel fees. The parties will fully co-operate with the arbitrator and provide all information reasonably requested by the arbitrator. Judgement on the award of the arbitrator may be entered in any court having jurisdiction over the party against which enforcement of the award is being sought. Each party hereby irrevocably submits and consents to the jurisdiction of any such court for the purpose of rendering a judgement of any such award.

PART 9

FORCE MAJEURE

9.1 Force Majeure

In and for the purposes of this Agreement, "Force Majeure" shall mean anyone or more of the following events:

- (a) an act of God;
- (b) a war, revolution, insurrection, riot, blockade, or any other unlawful act against public order or authority;
- (c) a strike, lockout or other industrial disturbance;
- (d) a storm, fire, flood, explosion, earthquake or lightning;
- (e) a governmental restraint;
- (f) an epidemic or quarantine restrictions; or
- (g) any other event (whether or not of the kind enumerated in 9.1(a) to (e) above) which is not reasonably within the control of the party hereto claiming suspension of its obligations hereunder due to Force Majeure.

9.2 Performance Prevented by Force Majeure

If either party hereto is prevented by Force Majeure from carrying out any of its obligations hereunder, the obligations of such party, insofar as its obligations are affected by Force Majeure, shall be suspended while (but only so long as) Force Majeure continues to prevent the performance of such obligations. Any party prevented from carrying out any obligation by Force Majeure shall promptly give the other party hereto notice of Force Majeure including reasonably full particulars thereof.

9.3 Remedy of Force Majeure

A party claiming suspension of its obligations by reason of Force Majeure shall promptly remedy the cause and effect of Force Majeure described in the notice given pursuant to Section 9.2 insofar as such party is reasonably able so to do, provided that the terms of settlement of any strike, lockout or other industrial disturbance shall be wholly in the discretion of the party hereby claiming suspension of its obligations hereunder by reason thereof; and that such party shall not be required to accede to the demands of its opponents in any strike, lockout or industrial disturbance solely to remedy promptly Force Majeure thereby constituted.

9.4 Lack of Funds Not Force Majeure

Notwithstanding anything contained in this Article 9, lack of finances shall not be considered Force Majeure nor shall Force Majeure suspend any obligation for the payment of money due hereunder.

PART 10 MISCELLANEOUS

10.1 Notice

Any notice, direction or other communication required or permitted to be given hereunder must be in writing and will be sufficiently given if delivered or sent by facsimile to the party from whom it is intended at the address of such party shown on the first page of this Agreement. Any notice, direction or other communication so given will be deemed to have been given and to have been received on the day of delivery, if delivered, or on the day of sending if sent by facsimile (provided such day of delivery or sending is a Business Day and, if not, then on the first Business Day thereafter). Each party hereto may change its address for notice by notice given in the manner aforesaid.

10.2 Assignment

Neither party hereto may assign this Agreement or any of its rights hereunder without the prior written consent of the other party, such consent not to be unreasonably withheld.

10.3 Amendments

Any amendment or modification of this Agreement must be in writing and signed by the party against which such amendment or modification is sought to be enforced.

10.4 Severability

If any term or condition of this Agreement or the application hereof is determined judicially or otherwise to be invalid or unenforceable, the remainder of this Agreement and the application thereof shall not be affected and shall remain in full force and effect.

10.5 Entire Agreement

This Agreement constitutes the entire agreement between the parties pertaining to the subject matter hereof. There are no representations, warranties, covenants or agreements between the parties in connection with such subject matter except as specifically set forth or referred to in this Agreement.

10.6 Counterparts, Facsimile

This Agreement may be executed by the execution of one or more counterparts of the execution page, which will be taken together and constitute the execution page, and one or more of such counterparts may be delivered by facsimile transmission.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement effective the 1st day of January, 2009.

TERASEN INC.

By:  _____

Name: Scott A. Thomson
VP, Regulatory Affairs & CFO

Title: _____

FORTISBC INC.

By:  _____

Name: Dennis Swanson

Title: Director, Regulatory Affairs

CORPORATE SERVICES CONTRACT - INSURANCE

THIS AGREEMENT is made effective the 1st day of January, 2009.

BETWEEN:

TERASEN INC., a corporation formed under the laws of British Columbia having an office at 1000-1111 West Georgia Street, Vancouver, British Columbia, V6E 4M3

(hereinafter "TI")

AND:

FORTISBC INC., a corporation formed under the laws of British Columbia, having an office at Suite 100, 1975 Springfield Road, Kelowna, British Columbia, V1Y 7V7

(hereinafter "FBC")

WHEREAS

- A. FBC requires assistance with insurance matters and as such wishes to retain TI to provide insurance services (the "Services") on an as and when required basis.
- B. TI is willing to provide the Services as required.

WITNESSETH THAT, in consideration of the covenants and agreements herein contained, the parties covenant and agree as follows:

PART 1 INTERPRETATION

1.1 Definitions

In and for the purpose of this Agreement

- (a) **"Applicable Laws"** means any and all Laws in force and effect from time to time and applicable to the Facilities and the performance of the Services hereunder;
- (b) **"Force Majeure"** has the meaning assigned to such term in Section 9.1;

- (c) **"Governmental Authority"** means any domestic or foreign, national, federal, provincial, state, municipal or other local government or body and any division, agent, commission, board, or authority of any quasi-governmental or private body exercising any statutory, regulatory, expropriation or taxing authority under the authority of any of the foregoing, and any domestic, foreign, international, judicial, quasi-judicial, arbitration or administrative court, tribunal, commission, board or panel acting under the authority of any of the foregoing;
- (d) **"Laws"** means all constitutions, treaties, laws, statutes, codes, ordinances, orders, decrees, rules, regulations and municipal by-laws, whether domestic, foreign or international, any judgements, orders, writs, injunctions, decision, rulings, decrees, and awards of any Governmental Authority, and any published policies or guidelines of any Governmental Authority and including, without limitation, any principles of common law and equity,
- (e) **"Person"** includes any individual, corporation, body corporate, partnership, joint venture, association, trust, estate, incorporated or unincorporated association, any government or governmental authority however designated or constituted or any other entity of whatever nature,
- (f) **"Services"** means the professional and management services to be provided to FBC by TI as more particularly described in Section 2.1.

1.2 Schedules

Schedule "A" and Schedule "B" are attached to, and are incorporated by reference into, this Agreement.

1.3 Interpretation

In and for the purpose of this Agreement

- 1) this "Agreement" means this agreement as the same may from time to time be modified, supplemented or amended in effect,
- 2) any reference in this Agreement to a designated "Article", "section" or other subdivision is to the designated Article, section or other subdivision of this Agreement,
- 3) the words "herein", "hereof" and "hereunder" and other words of similar import refer to this Agreement as a whole and not to any particular Article, section or other subdivision,

- 4) the headings are for convenience only and do not form a part of this Agreement and are not intended to interpret, define or limit the scope, extent or intent of this Agreement,
- 5) the singular of any term includes the plural, and vice versa, the use of any term is generally applicable to any gender and, where applicable, a corporation, the word "or" is not exclusive and the word "including" is not limiting (whether or not non-limiting language (such as "without limitation" or "but not limited to" or words of similar import) is used with reference thereto), and
- 6) each word and phrase used herein and not otherwise defined herein, but which has an accepted meaning in the custom and usage of the Western Canadian oil and gas transportation industry, shall have such accepted meaning.

1.4 Governing Law

Subject to Section 9.1, this Agreement will be interpreted and the rights and remedies of the parties hereto will be determined in accordance with the laws of the Province of British Columbia.

PART 2 SERVICES

2.1 Services

TI hereby agrees to provide to FBC those professional services described in Schedule "A".

2.2 No Obligation to Provide Additional Services

TI shall not perform, and TI shall have no obligation to perform, any services on behalf of FBC other than as set out in this Agreement or any similar agreement.

2.3 Consultation with FBC

TI will consult with FBC as required in connection with the performance of the Services.

2.4 Independent Contractor

Nothing in this Agreement shall be construed to create or constitute a partnership or relationship of joint venture between TI and FBC. In

performing the Services, TI shall be an independent contractor. TI employees shall not be considered employees of FBC for any purpose.

2.5 Compliance

In performing the Services, TI will comply with all Applicable Laws.

PART 3 COMPENSATION

3.1 Compensation for Services and Shared Costs

FBC agrees to pay to TI for the Services as set out in Schedule "A" at the Total Hourly Rates as defined in Schedule "B" attached hereto, which may be amended from time to time.

3.2 Amendment to Costs

The amounts may be Subsection 3.1 may be amended from time to time by agreement between the parties to reflect any material change in the cost of providing the Services and to reflect annual inflationary adjustments. Any services to be provided that are not contemplated under this Agreement shall be subject to additional compensation as agreed between the parties and form an amendment to this Agreement in accordance with Subsection 10.3 below.

3.3 Invoicing

TI will invoice FBC in respect of the Services no later than the 25th day following the end of the month in which such Services are provided or in such other manner as the parties may agree. Each invoice from TI to FBC will include an hourly breakdown of the Services provided by TI to FBC for the period of time covered by the invoice.

3.4 Payment

- (a) Except with respect to those portions of an Invoice which are the subject of a bona fide dispute between the parties, FBC shall within thirty (30) days after receipt of an invoice from TI, pay to TI the amount specified in such invoice.
- (b) Any amount to be remitted by FBC to TI and not remitted on or before the date on which it is due shall thereafter bear interest. A late payment charge of 1.5% per month (18% per annum) shall be payable to TI on any unpaid balance after thirty (30) days of the date of invoice.

3.5 Taxes

Notwithstanding any other provision of this Agreement, the amounts paid or payable by one party to the other in accordance with this Agreement are exclusive of any value added taxes or sales taxes, which are now, or may become during the term of this Agreement, applicable to the provision of the Services. Each party shall pay to the other party any value added taxes or sales tax which one party is obligated to collect from the other at the time such taxes are due and payable.

PART 4

INDEMNIFICATION AND LIMITATION OF LIABILITY

4.1 Indemnity by FBC

Subject to Section 4.4, FBC will indemnify, defend and hold harmless TI and its directors, officers, employees, agents and contractors, from and against any claim, demand, loss, liability, action, lawsuit or other proceeding, judgement or award, and cost or expense (including reasonable legal fees and disbursements) which they may suffer or incur arising directly or indirectly, in whole or in part, in connection with this Agreement or with TI's provision of the Services, except and to the extent, if any, that the same results from or arises out of the wilful misconduct or negligence of TI.

4.2 Limitation of Liability of TI

Neither TI nor any of its directors, officers, employees, agents or contractors will be liable to FBC for any claim, demand, loss, liability, action, lawsuit or other proceeding, judgement or award, or cost or expense (including reasonable legal fees and disbursements) which FBC may suffer or incur arising directly or indirectly, in whole or in part, in connection with this Agreement or with TI's provision of the Services, except and to the extent, if any, that the same results from or arises out of the wilful misconduct or negligence of TI.

4.3 Indemnity by TI

Subject to Section 4.4, TI will indemnify, defend and hold harmless FBC, its directors, officers, employees, agents and contractors, from and against any claim, demand, loss, liability, action, lawsuit or other proceeding, judgement or award and cost or expense (including reasonable legal fees and disbursements) which they may suffer or incur as a result of any act

or omission or error of judgement as a result of which TI is adjudged to have been guilty of wilful misconduct or gross negligence.

4.4 Consequential Losses

Each party acknowledges and agrees that notwithstanding anything else in this Agreement and except for the parties' obligations of confidentiality and indemnification for infringement, in no event shall a party or any of their officers, directors, employees, shareholders, agents, or representatives be liable to the other party, any of its affiliates, or any other party for any special, indirect, incidental, exemplary, or consequential damages or loss of goodwill whether such liability is based on contract, tort, negligence, strict liability, products liability or otherwise, in any way arising from or relating to this Agreement or resulting from the use of or inability to use the products or the performance or non-performance of the Services, including the failure of essential purpose, even if the party has been notified of the possibility or likelihood of such damages occurring.

PART 5

COVENANTS OF FBC

5.1 Covenants by FBC

FBC covenants and agrees to:

- (a) fully co-operate with TI in respect of all matters contemplated by or within the scope of this Agreement; and
- (b) pay on or before the due date thereof all amounts payable by FBC to TI or any other Person pursuant to or as contemplated by this Agreement.

PART 6

REPRESENTATIONS AND WARRANTIES

6.1 Representations and Warranties of TI

TI hereby represents and warrants to FBC as representations and warranties which are true as at the date hereof and which will be true during the term of TI's appointment hereunder:

- (a) TI is a corporation duly organized, validly existing and in good standing under the laws of its jurisdiction of incorporation, and TI has full power and authority to perform its obligations hereunder;

- (b) this Agreement constitutes a valid and binding obligation of TI enforceable in accordance with its terms, except that (i) such enforcement may be subject to bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to creditors' rights, and (ii) the remedy of specific performance and injunctive or other forms of equitable relief may be subject to equitable defences and to the discretion of the court before which any proceeding therefore may be brought; and
- (c) TI possesses all of the skills and personnel required to provide the Services.

6.2 Representations and Warranties of FBC

FBC hereby represents and warrants to TI as representations and warranties which are true as at the date hereof and which will be true during the term of TI's appointment hereunder:

- (a) FBC is a corporation duly organized, validly existing and in good standing under the laws of its jurisdiction of incorporation, and FBC has full power and authority to perform its obligations hereunder; and
- (b) this Agreement constitutes a valid and binding obligation of FBC enforceable in accordance with its terms, except that (i) such enforcement may be subject to bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to creditors' rights, and (ii) the remedy of specific performance and injunctive or other forms of equitable relief may be subject to equitable defences and to the discretion of the court before which any proceeding therefore may be brought.

PART 7

DURATION, TERMINATION AND DEFAULT

7.1 Effective Date and Term

This Agreement will be effective from January 1, 2009 and will end on December 31, 2009, unless earlier terminated pursuant to the provisions hereof. Thereafter the Agreement will automatically be renewed for further one (1) year terms subject to Section 7.2 below.

7.2 Termination

This Agreement may be terminated as follows:

- (a) by TI giving FBC fifteen (15) days written notice of such termination if FBC becomes insolvent, admits in writing its inability to pay its debts as they become due or commits or threatens to commit an act of bankruptcy or if FBC makes a general assignment for the benefit of creditors, or any proceeding is instituted by or against FBC seeking to adjudicate it a bankrupt or an insolvent or seeking the dissolution, winding-up or liquidation of FBC or a reorganization, arrangement, moratorium, adjustment, compromise, readjustment of debt or composition of it or its debts under any law relating to bankruptcy, insolvency, moratorium, reorganization or relief of debtors or seeking the appointment of a receiver, receiver-manager, interim receiver, trustee, custodian, liquidator or other similar official or Person for it, or FBC consents by answer, acquiescence or otherwise to the institution of any such proceeding against it; or
- (b) by TI in the event FBC breaches this Agreement and fails to cure such breach within thirty (30) days after receipt by FBC of written notice thereof from TI or, if such breach is not capable of being cured within such thirty (30) day period, fails to commence in good faith the curing of such breach forthwith upon receipt of written notice thereof from TI and to continue to diligently pursue the curing of such breach thereafter until cured and, in either case, the allegation of TI that FBC is in breach is conceded to be correct by FBC or found to be correct by an arbitrator pursuant to Section 8.1;
- (c) by FBC giving TI fifteen (15) days written notice of such termination if TI becomes insolvent, admits in writing its inability to pay its debts as they become due or commits or threatens to commit an act of bankruptcy or if TI makes a general assignment for the benefit of creditors, or any proceeding is instituted by or against TI seeking to adjudicate it a bankrupt or an insolvent or seeking the dissolution, winding-up or liquidation of TI or a reorganization, arrangement, moratorium, adjustment, compromise, readjustment of debt or composition of it or its debts under any law relating to bankruptcy, insolvency, moratorium, reorganization or relief of debtors or seeking the appointment of a receiver, receiver-manager, interim receiver, trustee, custodian, liquidator or other similar official or Person for it, or TI consents by answer, acquiescence or otherwise to the institution of any such proceeding against it; or
- (d) by FBC in the event TI breaches this Agreement and fails to cure such breach within thirty (30) days after receipt by TI of written notice thereof from FBC or, if such breach is not capable of being

cured within such thirty (30) day period, fails to commence in good faith the curing of such breach forthwith upon receipt of written notice thereof from FBC and to continue to diligently pursue the curing of such breach thereafter until cured and, in either case, the allegation of FBC that TI is in breach is conceded to be correct by TI or found to be correct by an arbitrator pursuant to Section 8.1.

- (e) by either FBC or TI in their sole and absolute discretion at any time by giving six (6) months notice after receipt by either FBC or TI of written notice thereof from the other party. Such termination shall not affect any rights of the parties which have accrued prior to the date of termination and shall not relieve any party from its obligations which have arisen during the term of this Agreement.

7.3 Duties Upon Termination

Upon expiry or termination of this Agreement for any reason, TI will have no further obligations under Article 2 and will promptly deliver to FBC any material documents in the possession of TI pertaining to the business of FBC.

7.4 Compensation of TI on Expiry or Termination

Within one (1) month after the expiry or termination of this Agreement, FBC will pay to TI all amounts owing to TI hereunder (including any amount owing on account of the fees provided for in Article 3 calculated up to the date of expiry or termination); provided that for the purposes of this section, the fees provided for in Article 3 which are payable to TI on a monthly, annual or other periodic basis will be deemed to accrue due and be payable on a daily basis.

PART 8

ARBITRATION

8.1 Arbitration

For purposes of Section 7.2, any dispute between TI and FBC regarding any allegation that FBC or TI is in breach of this Agreement, may be submitted to and settled by arbitration in accordance with the provisions of this Section 8.1. Arbitration proceedings may be commenced by the party desiring arbitration giving notice to the other party specifying the matter to be arbitrated and requesting arbitration thereof. Such arbitration will be carried out by a single arbitrator and in accordance with the rules of National Arbitration Rules of the ADR Institute of Canada Inc. from time to time in force and effect. If the parties are unable to agree upon an

arbitrator within ten (10) days after delivery of such notice, either of them may make application to court for appointment of an arbitrator. In the event of the failure, refusal or inability of an arbitrator to act, or continue to act, a new arbitrator will be appointed, which appointment will be made in the same manner as provided above. The decision of an arbitrator appointed as under this Section 8.1 will be final and binding upon the parties and not subject to appeal. The arbitrator will have the authority to assess the costs of the arbitration against either or both of the parties, provided that each party will bear its own witness and counsel fees. The parties will fully co-operate with the arbitrator and provide all information reasonably requested by the arbitrator. Judgement on the award of the arbitrator may be entered in any court having jurisdiction over the party against which enforcement of the award is being sought. Each party hereby irrevocably submits and consents to the jurisdiction of any such court for the purpose of rendering a judgement of any such award.

PART 9

FORCE MAJEURE

9.1 Force Majeure

In and for the purposes of this Agreement, "Force Majeure" shall mean anyone or more of the following events:

- (a) an act of God;
- (b) a war, revolution, insurrection, riot, blockade, or any other unlawful act against public order or authority;
- (c) a strike, lockout or other industrial disturbance;
- (d) a storm, fire, flood, explosion, earthquake or lightning;
- (e) a governmental restraint;
- (f) an epidemic or quarantine restrictions; or
- (g) any other event (whether or not of the kind enumerated in 9.1(a) to (e) above) which is not reasonably within the control of the party hereto claiming suspension of its obligations hereunder due to Force Majeure.

9.2 Performance Prevented by Force Majeure

If either party hereto is prevented by Force Majeure from carrying out any of its obligations hereunder, the obligations of such party, insofar as its obligations are affected by Force Majeure, shall be suspended while (but

only so long as) Force Majeure continues to prevent the performance of such obligations. Any party prevented from carrying out any obligation by Force Majeure shall promptly give the other party hereto notice of Force Majeure including reasonably full particulars thereof.

9.3 Remedy of Force Majeure

A party claiming suspension of its obligations by reason of Force Majeure shall promptly remedy the cause and effect of Force Majeure described in the notice given pursuant to Section 9.2 insofar as such party is reasonably able so to do, provided that the terms of settlement of any strike, lockout or other industrial disturbance shall be wholly in the discretion of the party hereby claiming suspension of its obligations hereunder by reason thereof; and that such party shall not be required to accede to the demands of its opponents in any strike, lockout or industrial disturbance solely to remedy promptly Force Majeure thereby constituted.

9.4 Lack of Funds Not Force Majeure

Notwithstanding anything contained in this Article 9, lack of finances shall not be considered Force Majeure nor shall Force Majeure suspend any obligation for the payment of money due hereunder.

PART 10 MISCELLANEOUS

10.1 Notice

Any notice, direction or other communication required or permitted to be given hereunder must be in writing and will be sufficiently given if delivered or sent by facsimile to the party from whom it is intended at the address of such party shown on the first page of this Agreement. Any notice, direction or other communication so given will be deemed to have been given and to have been received on the day of delivery, if delivered, or on the day of sending if sent by facsimile (provided such day of delivery or sending is a Business Day and, if not, then on the first Business Day thereafter). Each party hereto may change its address for notice by notice given in the manner aforesaid.

10.2 Assignment

Neither party hereto may assign this Agreement or any of its rights hereunder without the prior written consent of the other party, such consent not to be unreasonably withheld.

10.3 Amendments

Any amendment or modification of this Agreement must be in writing and signed by the party against which such amendment or modification is sought to be enforced.

10.4 Severability

If any term or condition of this Agreement or the application hereof is determined judicially or otherwise to be invalid or unenforceable, the remainder of this Agreement and the application thereof shall not be affected and shall remain in full force and effect.

10.5 Entire Agreement

This Agreement constitutes the entire agreement between the parties pertaining to the subject matter hereof. There are no representations, warranties, covenants or agreements between the parties in connection with such subject matter except as specifically set forth or referred to in this Agreement.

10.6 Counterparts, Facsimile

This Agreement may be executed by the execution of one or more counterparts of the execution page, which will be taken together and constitute the execution page, and one or more of such counterparts may be delivered by facsimile transmission.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement effective the 1st day of January, 2009.

TERASEN INC.

By: 

Name: Scott A. Thomson
VP, Regulatory Affairs & CFO

Title: _____

FORTISBC INC.

By: 

Name: Brett Henderson

Title: Manager Corporate Reporting & Treasury

Schedule "A"
Scope of Services

Schedule A
Scope of Services

1. GENERAL

1.1 TI shall provide FBC the Services as follows:

- (a) **Insurance renewal.** Secure underwriting information for submission to Fortis Inc.;
- (b) **Contract review.** Review contracts for insurance requirements in consultation with legal and/or procurement groups;
- (c) **Insurance inquiries.** Certificates of insurance and coverage assessment;
- (d) **Loss control.** Co-ordinate loss control visits;
- (e) **Claims assistance.** As required;
- (f) **Capital Project Insurance.** As required; and
- (g) **Other Insurance Matters.** As required.

Schedule B
Pricing

Schedule "B"

Pricing

**Schedule B
Pricing**

Prices for the Services shall be determined by multiplying the Total Hourly Rate for the Service Provider by the hours of Service provided.

Service Provider	Total Hourly Rate (including Overhead and Facilities Use)
Steve Cop	\$98.72
Dayle Francis	\$52.18

Project No. 3698570: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

- 1 **1. Reference: 2010 RRA, Tab 3, page 4, Table 3.1.2**
- 2 **Q1 What is the BC Hydro rate increase used in the determination of the Water Fees and**
- 3 **what is the basis for this increase?**
- 4 **A1 The final BC Hydro 2008 rate increase was 2.34% and 2009 was 8.74%. Water Fee rate**
- 5 **increases are tied to the prior year's BC Hydro rate increase. However, BC Hydro rate**
- 6 **riders are not considered in the calculation of water fee rates.**

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

- 1 **2. Reference: 2010 RRA, Tab 3, page 5, lines 19-20**
- 2 **Q2a Are there any other major banks or other source that forecast the BC CPI? If so**
- 3 **please identify and provide their forecasts for the BC CPI.**
- 4 A2a As of the filing of the 2010 Preliminary Revenue Requirements on October 1, 2009,
- 5 FortisBC had included all major banks or other available sources that had a current BC
- 6 CPI forecast.
- 7 On October 16, 2009, BMO issued a BC CPI 2010 forecast of 1.9% which has been
- 8 attached as Appendix BCOAPO 2a.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

- | | | |
|---|-----------|--|
| 1 | 3. | Reference: 2010 RRA, Tab 3, page 8 |
| 2 | Q3 | What gives rise to the increase in wheeling nominations to the Okanagan |
| 3 | | Interconnection Point? |
| 4 | A3 | Wheeling nominations to the Okanagan Interconnection Point must increase as customer |
| 5 | | load in the Okanagan increases. |

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

- 1 **4. Reference: 2010 RRA, Tab 3, page 9**
- 2 **Q4.a What is the reason for the higher Electric Apparatus Rental revenue in 2009 and**
3 **why isn't the same revenue level maintained in 2010?**
- 4 A4.a Please see the responses to BCUC IR Q5.2a.
- 5 **Q4.b Please explain the decrease in Lease Revenue for 2010.**
- 6 A4.b One of the current tenants at the Trail Office is vacating the premise as of December 31,
7 2009. Efforts are being made to find another tenant.
- 8 **Q4.c Please explain the basis for the forecasted changes (2010 versus 2008 actual) in**
9 **the Management Fee and Management Fee Capital for Waneta and Brilliant.**
- 10 A4.c Please see response to BCUC IR Q5.3.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

1 **5. Reference: 2010 RRA, Tab 3, page 10, Table 3.3.1**

2 **Q5a For each of the four categories please indicate how much of the increase in**
3 **property tax (2010 vs. 2009) is due to increases in assessed value vs. increases in**
4 **the forecast mill rate?**

5 A5a The response is provided in the Table below:

Table 3.3.1: Property Tax

		Forecast	Forecast	% increase from forecast change in:			
		2009	2010	assessed value	mill rates	other (1)	total
		(\$000's)	(\$000's)				
1	Generating Plant	2,548	2,760	60%	40%	0%	100%
2	Transmission and Distribution	5,405	5,651	27%	64%	8%	100%
3	Substation Equipment	3,000	3,535	32%	66%	2%	100%
4	Land and Buildings	524	602	78%	22%	0%	100%
5	Total Property Tax	11,477	12,548				

(1) Categories 2 and 3 also affected by change in revenues.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

1 **6. Reference: 2010 RRA, Tab 3, page 11**

2 **Q6a Please provide a breakdown of the 2009 and 2010 tax rates as between provincial**
3 **and federal tax rates.**

4 A6a Effective January 1, 2009 the Federal government reduced the corporate income tax rate
5 to 19.0%. Effective January 1, 2010 the Federal government reduced the corporate
6 income tax rate to 18.0%. Both rate reductions received Royal Assent on December 14,
7 2007.

8 Effective July 1, 2008 the BC corporate income tax rate was reduced from 12.0% to
9 11.0% per the February 19, 2008 BC Budget on climate change, which received Royal
10 Assent on May 1, 2008. Effective January 1, 2010 the BC corporate income tax rate will
11 be reduced from 11.0% to 10.5% which received Royal Assent on March 12, 2009.

Effective Corporate Tax Rates

	2009	2010
Federal rate	19.00%	18.00%
BC rate	11.00%	10.50%
Total	30.00%	28.50%

7. Reference: 2010 RRA, Tab 3, page 12

Q7a Please outline how the harmonization of the provincial sales tax and the federal goods and services tax is likely to affect FortisBC's Revenue Requirement (i.e., what areas of the revenue requirement will be affected and why).

A7a As stated in Tab 3, page 12 FortisBC has not recognized the impacts of transition to Harmonized Sales Tax (HST) in the 2010 Preliminary Revenue Requirements. As of the time of preparing the updated 2010 Revenue Requirements Application to be filed on November 2, 2009, the implementation of the HST is still pending legislative enactment and the transitional rules and the potential implications still require interpretation and review. The provincial government's implementation of the HST meets the definition of a "Z" factor under the PBR mechanism. FortisBC will defer the impact of the HST and apply for disposition in a subsequent application to the Commission.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

1 **8. Reference: 2010 RRA, Tab 3, pages 15 and 25**

2 **Q8.a Please confirm that FortisBC's ROE is set at 40 basis points above that set by the**
3 **BCUC for a Low Risk Benchmark Utility.**

4 A8.a Confirmed.

5 **Q8.b Please confirm that Terasen Utilities' ROE is currently set equal to that of a Low**
6 **Risk Benchmark Utility.**

7 A8.b The Commission Panel determined in the Decision to Order G14-06 that Terasen Gas
8 Inc. ("TGI") is the benchmark low-risk utility.

9 **Q8.c Does FortisBC agree that the outcome of the Terasen Utilities' Application would**
10 **impact FortisBC's ROE if it changed the approach used to determine the ROE for a**
11 **Low Risk Benchmark Utility; but would not impact FortisBC's ROE if it only**
12 **changed the setting of Terasen Utilities' ROE relative to the Low Risk Benchmark**
13 **ROE? If not, please explain why.**

14 A8.c TGI is currently the benchmark utility for the purposes of setting FortisBC's ROE.
15 FortisBC has requested an Order that the TGI ROE remain the benchmark ROE, for the
16 purposes of setting FortisBC's ROE. If it is ordered that the TGI ROE no longer remains
17 the benchmark ROE for the purposes of setting FortisBC's ROE it does not necessarily
18 follow, given the increased risk to BC utilities and the obligation to provide FortisBC with a
19 fair Return on Equity, that FortisBC's ROE would remain unchanged. The methodology
20 used to determine the benchmark would be the subject of the terms of the Commission
21 Order.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

9. Reference: 2010 RRA, Tab 3, page 24

Q9.a Please provide a breakdown of the anticipated \$760,000 cost for the COSA/RDA Application.

A9.a Please see the response to OEIA IR Q 3.1.1.

Q9.b Please provide a reference for the approval of the deferral account related to BCH's application to amend RS 3808.

A9.b In the 2009 Revenue Requirements, FortisBC included the costs associated with BC Hydro's application to amend RS 3808 in the deferred account for the renegotiation of the Power Purchase Agreement with BC Hydro. As part of the Negotiated Settlement Agreement (see page 6 of Appendix A to Order G-193-08), FortisBC agreed to separate the cost of the two proceedings and to collect the cost of the BC Hydro application to amend RS 3808 in a non-rate base, non-interest bearing deferral account.

Project No. 3698570: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

1 **10. Reference: 2010 RRA, Tab 3, page 29**

2 **Q10.a Please confirm that FortisBC is seeking to amortize in 2010 the \$300,000 (before**
3 **tax) costs associated with IFRS that were incurred in 2009.**

4 A10.a Confirmed.

5 **Q10.b Please provide a breakdown of the \$300,000 costs.**

6 A10.b The breakdown of the \$300,000 in costs that are expected to be incurred in 2009 is as
7 follows:

Labour (dedicated project resources)	\$ 126,000
Depreciation Study	65,000
Actuary Fees (related to IFRS transition and valuation under IAS 19)	45,000
Travel (industry conferences and group working sessions)	5,000
Incremental External Audit	35,000
External Advisor Fees	21,000
Training	3,000
	<hr/>
	\$ 300,000

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

1 **11. Reference: 2010 RRA, Tab 3, page 30, lines 23-24**

2 **Q11 Do the \$407,000 in penalty revenues contribute to FortisBC's overall earnings and**
3 **the ROE sharing calculations for 2009? If not, why not?**

4 A11 Yes, the \$407,000 in penalty revenues contributes to FortisBC's overall earnings and the
5 ROE sharing calculations for 2009.

12. Reference: 2010 RRA, Tab 4, pages 10-11

Q12. Please explain why, in 2009, the Tax Impact associated with the amortization of DSM is more than 50% of the amortized amount whereas in 2010 it is less than 30% (i.e., \$936 on \$3285).

A12. The breakdown of the net DSM amortization between Gross and Tax impact is for presentation purposes only. The result is a net of Tax value of \$ 2,349 for year 2010.

The net of tax value of \$934k (\$899 excluding PLP) was in error and has been corrected in 2010.

This error correction in 2010 is clarified in the table below.

Parameters	Amortization 2007	Amortization 2008	Amortization 2009	Amortization 2010	Remarks
Actual	1,220	1,461	899	2,349	All values are net of tax. Amortization incorrect in 2009 by \$603k.
Calculated	1,220	1,461	1,502	1,746	
Variance	0	0	-603	603	

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

13. Reference: 2010 RRA, Tab 4, page 18

2010 RRA, Tab 5, page 3 & 13

Q13.a Please provide a revised Table 2-A-1 setting out for each year the sales by customer class prior to DSM savings (e.g. the total savings of 30 GWh for 2010 would be distributed across the classes).

A13.a

		Actual 2008	Forecast 2009	Forecast 2010
		GWh		
1	Residential	1221	1248	1238
2	General Service	666	666	679
3	Industrial	252	232	294
4	Wholesale	892	924	925
5	Lighting	14	13	13
6	Irrigation	42	52	52
7	Total Sales	3087	3135	3201
8	Losses and Company Use	314	311	310
9	Gross Load	3401	3446	3512

The 2008 sales are normalized actuals and therefore no adjustments have been made for DSM. Forecast 2009 sales incorporate year-to-date July actual sales and removes the remainder of the year as forecast with anticipated new DSM savings, as per the approved 2009 Revenue Requirement application. Annual 2009 forecast DSM savings were forecast at 25 GWh. Remaining in 2009 and removed from the 2009 forecast in the table above was 10.6 GWh. The 2010 forecast is adjusted fully by the removal of total expected annual DSM savings of 30 GWh from the appropriate class.

Q13.b Based on the results from part (a), please provide a schedule for 2008, 2009 and 2010 that sets out the average use per customer in each class (prior to savings for DSM). For purposes of determining the “average” please use the “average” customer counts by class for each year (e.g., for 2010 use the average of the year end counts for 2009 and 2010).

A13.b

Residential	YE Customer Counts	GWh	Average MWh Use per Customer
2007 Actual	93,647	1,177.4	
2008 Actual	95,502	1,225.3	12.96
2009 Forecast	96,866	1,247.5	12.97
2010 Forecast	98,264	1,238.0	12.69
General Service	YE Customer Counts	GWh	Average MWh Use per Customer
2007 Actual	11,010	642.7	
2008 Actual	11,216	668.2	60.13
2009 Forecast	11,344	666.3	59.07
2010 Forecast	11,667	679.3	59.04
Wholesale	YE Customer Counts	GWh	Average MWh Use per Customer
2007 Actual	7	871.8	
2008 Actual	7	891.2	127,319
2009 Forecast	7	924.0	132,001
2010 Forecast	7	925.1	132,154
Industrial	YE Customer Counts	GWh	Average MWh Use per Customer
2007 Actual	38	331.4	
2008 Actual	36	219.7	5,939
2009 Forecast	34	232.0	6,630
2010 Forecast	34	293.8	8,641
Irrigation	YE Customer Counts	GWh	Average MWh Use per Customer

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

2007 Actual	1,030	48.9	
2008 Actual	1,048	42.4	40.82
2009 Forecast	1,048	52.1	49.70
2010 Forecast	1,048	52.1	49.69
Street Light	YE Customer Counts	GWh	Average MWh Use per Customer
2007 Actual	1,992	12.6	
2008 Actual	1,910	14.0	7.19
2009 Forecast	1,891	13.3	7.00
2010 Forecast	1,891	13.3	7.04
Total Net	YE Customer Counts	GWh	Average MWh Use per Customer
2007 Actual	107,724	3,084.8	
2008 Actual	109,719	3,060.9	28.15
2009 Forecast	111,190	3,135.2	28.38
2010 Forecast	112,911	3,201.5	28.57

1 The 2009 forecast at Tab 4, page 18, Table 2-A-1 uses 2009 actual and not normalized
2 loads. The non-normalized 2009 forecast is used in Table 2-A-1 for the purpose of
3 determining revenues and is not used for load forecasting.

4 Load forecasting uses normalized sales to remove the anomalous effects of weather. The
5 2009 residential and wholesale average uses in the table above are higher than the
6 normalized average use factors that are used for the 2010 load forecast. The normalized
7 UPC used in the 2010 preliminary RR for 2009 was 12.68 MWh/Customer.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

1 **14. Reference: 2010 RRA, Tab 5, pages 6 and 7**

2 **Q14.a Are the average use trend calculations (per Figures 5.2.1 and 5.2.2) based on**
3 **normalized use including or excluding the impact of DSM?**

4 A14.a The Residential Use Per Customer in Figure 5.2.1 is based on normalized historic data
5 and would include DSM effects that were realized in prior years. The 2009 and 2010
6 forecast average Residential UPC includes the anticipated impact of new DSM savings.

7 The General Service use per customer in Figure 5.2.2 is based on actual historic data
8 and would include DSM effects that were realized in prior years. Due to a weak
9 correlation of weather on General Service usage, sales in this class are not normalized.
10 The 2009 and 2010 forecast average Residential UPC includes the anticipated impact of
11 new DSM savings.

12 **Q14.b If the historical use per customer trend is “after” the impact of DSM, please explain**
13 **how the impact of DSM is incorporated in the 2010 forecast so as to avoid “double**
14 **counting”.**

15 Past UPC averages are assumed to include the impact of efforts in the related year.

16 DSM savings forecast for future years is assumed to be additional new savings from the
17 DSM programs and therefore savings are removed from forecast loads and the expected
18 average use.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

1 **15. Reference: 2010 RRA, Tab 6, page 6**

2 **Q15 Please explain more fully what gives rise to the 7.1% increase in the Base Rate for**
3 **Brilliant Power in 2010.**

4 A15 Brilliant rates on average will increase by about \$1.0 million a year. The 2010 \$2.1
5 million increase over 2009 is the result of this expected \$1 million a year increase
6 combined with an additional \$0.6 million increase in Operation and Maintenance costs
7 required to maintain the plant and a reduction in the annual true-up in Brilliant costs to a
8 \$0.4 million credit against 2010 rates as opposed to the \$1.0 million credit in 2009.

9 True-ups are required every year to adjust for what should have been recovered in rates
10 for Brilliant compared to what was recovered. The 2008 true-up is flowed through to
11 2010 rates. In 2007 the over collection was approximately \$1.0 million while in 2008 the
12 over collection was only \$0.4 million. Therefore, the credit to apply against 2010
13 expected rates is \$0.6 million less than the credit applied against 2009 rates.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

1 **16. Reference: 2010 RRA, Tab 6, page 7 and Table 6.2**

2 **Q16. Please provide the basis for the 10.2% increase in BCHydro energy rates assumed**
3 **as of September 2009.**

4 A16. The increase in the BC Hydro energy rate from 28.254 to 31.138 is the cumulative impact
5 of the final BC Hydro 2008 and 2009 rate increases, adjusted for rate riders. 28.254 is
6 the BC Hydro energy rate up to March 2008, in other words before the 2008 BC Hydro
7 rate increase came into effect.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

17. Reference: 2010 RRA, Tab 7, pages 4 and 10

Q17. For each of the Generation projects in Table 7.1.1 and/or Table 7.2.1 that are forecast to be completed as of December 31, 2010, please provide total forecast capital expenditures and compare these with expenditures shown in Order G-11-09 (page 5). Please provide an explanation for any variances exceeding 5%.

A17.

	Order G-11-09	Total Capital Forecast	Variance	Variance As %	Variance Explanation
1 South Slokan Unit 1 Life Extension	17,861	16,736	(1,125)	-6%	Actual contract prices for large equipment purchases are less than budgeted.
2 South Slokan Unit 3 Life Extension	13,061	12,827	(234)	-2%	Variance within 5%.
3 South Slokan Plant Completion	3,550	2,685	(865)	-24%	As a result of a schedule change efficiencies were gained in Project Management & Safety, Engineering and Outage costs, by completing the scope of work at the same time as the ULE. Actual contract prices for Protection & Control equipment and commissioning was also less than budgeted.
4 Upper Bonnington Old Plant Repowering (Ph. 1)	5,887	5,182	(705)	-12%	Under spending due to cost of removal included in capital plan in error, and savings in AFUDC, as equipment was moved to plant in service sooner than forecasted.
5 South Slokan Unit Head Gate Rebuild	856	855	(1)	0%	Variance within 5%.
6 South Slokan Head Gate Hoist, Control Wire Rope Upgrade	1,103	918	(185)	-17%	Scope review and project efficiencies allowed for reduced overall costs.
7 All Plants Lighting Upgrade	816	726	(90)	-11%	Scope review and project efficiencies allowed for reduced overall costs.
8 All Plants Spare Unit Transformer	1,849	1,191	(658)	-36%	Under budget, the tendered transformer cost is less than budgeted.
9 Minor Projects	3,065	2,759	(306)	-10%	Scope review and project efficiencies allowed for reduced overall costs on these minor projects.
10 Total Generation	48,048	43,879	(4,169)	-9%	

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

1 **18. Reference: 2010 RRA, Tab 7, pages 5 and 12**

2 **Q18.a Please explain more fully how a delay in the Ellison Project led to an increase in**
3 **spending for 2009. In doing so please provide the actual capital spent as of**
4 **December 31, 2008 relative to the \$15.4 M forecast shown in Order G-11-09.**

5 A18.a Increased spending in 2009 on the Ellison project was as a result of the delay in receiving
6 approval of the land re-zoning application from the City of Kelowna and an application for
7 reconsideration to the BCUC by interveners to the project. The delay in land re-zoning
8 prevented Substation construction from commencing resulting in expenditures forecast
9 for 2008 being carried forward to 2009. The actual capital spent to December 31, 2008
10 was \$11.5 million compared to the \$15.4 million forecast.

11 **Q18.b For each of the Transmission and Stations projects in Table 7.1.2 and/or Table 7.2.2**
12 **that are forecast to be completed as of December 31, 2010, please provide the total**
13 **forecast capital expenditures and compare these with expenditures shown in Order**
14 **G-11-09 (page 12). Please provide an explanation for any variances exceeding 5%.**

15 A18.b Please refer to response to BCUC IR Q66.1.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

- 1 **19.** **Reference: 2010 RRA, Tab 7, page 8**
- 2 **Q19.** **Please describe what other projects are underway/planned for 2009 that required a**
- 3 **shifting of DSA Station construction.**
- 4 A19. Please see the response to BCUC IR Q72.1.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

- 1 **20. Reference: 2010 RRA, Tab 7, pages 9 and 14**
- 2 **Q20. Have all of the DSM programs that FortisBC is funding been demonstrated to be**
- 3 **cost effective? If not, which programs are not “cost effective”, what is the forecast**
- 4 **2009 and 2010 spending on these programs and what is the justification for the**
- 5 **spending?**
- 6 A20. None of the DSM programs have been demonstrated to be cost effective as prescribed
- 7 by the DSM regulations since the DSM regulations were not in force until after the CEP
- 8 was filed. However, FortisBC confirms that the PowerSense program achieves a TRC
- 9 ratio greater than 1 on a portfolio basis.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

21. Reference: 2010 RRA, Tab 7, pages 7 and 12-13

Q21. Please outline FortisBC's strategy with respect to the replacement of copper distribution conductor in light of the BCUC's decision (Order G-165-08) to deny the CPCN Application for the Replacement Program. Please describe how this strategy gives rise to the forecast spending levels for 2009 (\$1.5 M) and 2010 (\$3.6 M).

A21. FortisBC's strategy is to mitigate risks to the safety of the public and its workforce. Although the CPCN was denied as a whole, FortisBC and the Commission recognize that "the options of "do nothing" or "run to failure" are not viable where there are safety concerns" (Order G-165-08 Appendix A, page 10 of 10). As a result, FortisBC is reviewing each site and with a focus on safety only, is replacing the copper conductor in high risk areas in 2009 and 2010. Replacements for 2011 and future years will be addressed and become part of future filings. Please also see the response to BCUC IR Q69.1.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

22. **Reference:** 2010 RRA, Appendix B, pages 5-6

Q22.a Please explain more fully the purpose for applying for certain Non-Rate Base Deferral Accounts at this time and why such accounts are only requested in certain cases.

A22.a As explained throughout Appendix B of the 2010 RRA, there are several identified differences in accounting between current Canadian GAAP and current International Financial Reporting Standards ("IFRS"). While some differences will affect presentation or disclosure only, there are several requirements under IFRS which will result in changes to amount and timing of revenues, expenses, gains, and losses. As a result, if our 2010 RRA were aligned with IFRS, there would be an immediate impact on customer rates.

In order to avoid an immediate impact on customer rates, FortisBC has requested specific regulatory approval to recognize certain Non-Rate Base Deferral Accounts related to the identified differences in accounting between GAAP and IFRS. The inclusion of these items in the 2010 RRA assists in demonstrating that the BCUC has provided formal approval of collection of the amounts in the future, which is integral to recognizing deferrals for external financial reporting under the Exposure Draft on *Rate-regulated Activities* released by the International Accounting Standards Board ("IASB") on July 23, 2009.

Q22.b Why is it necessary to create these deferral accounts for 2010 when IFRS will not replace Canadian GAAP until 2011?

A22.b These Non-Rate Base Deferral Accounts have been requested for 2010 since that is the transition year for IFRS. The Omnibus Exposure Draft issued by the Canadian Accounting Standards Board ("AcSB") indicates that the Company will be required to apply IFRS, in full and without modification, beginning January 1, 2011. The Company's January 1, 2011 changeover date to IFRS will require the restatement, for comparative purposes, of amounts reported by the Company for the year ended December 31, 2010, and of amounts reported on the Company's opening IFRS balance sheet as at the transition date of January 1, 2010.

On July 23, 2009, the IASB issued an Exposure Draft on *Rate-regulated Activities*. Based on the Exposure Draft as it currently exists, regulatory assets and liabilities may be

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

1 recognized under IFRS when, as a result of the actions of an independent regulator
2 empowered to set rates, an entity has the right to recover specific previously incurred
3 costs or refund previously collected amounts. Without the specific approval of the Non-
4 Rate Base Deferral Accounts for 2010, the amounts would not meet the recognition
5 criteria of the Exposure Draft for the comparative year of 2010.

6 **Q22.c Please confirm that the request for deferral accounts is based on the assumption**
7 **that the BCUC will change its regulatory accounting requirements to fully align**
8 **with IFRS. If not, please explain.**

9 A22.c The request for Non-Rate Base Deferral Accounts is not intended to assume that the
10 BCUC will change its regulatory accounting requirements to fully and immediately align
11 with IFRS. Rather, the deferrals have been requested for 2010 in order to avoid an
12 immediate impact on customer rates since the Company is not requesting the BCUC to
13 align regulatory accounting requirements with IFRS at this time. FortisBC's strategy for
14 settling the identified deferrals, and treating future accounting differences arising as a
15 result of IFRS, will be addressed in future revenue requirement applications.

Project No.: 2010 Revenue Requirements

Requestor Name: British Columbia Old Age Pensioners' Organization et al.

Information Request No: 1

Request Date: October 15, 2009

Response Date: October 30, 2009

1 **23. Reference: 2010 RRA, Appendix F**

2 **Q23.a Do any of FortisBC's wholesale power agreements currently have power factor**
3 **requirements that are less than 95 percent? If yes, which ones?**

4 A23.a All of the wholesale agreements that are currently in effect require that the power factor at
5 each point of delivery be no less than 90 percent. Pursuant to Commission Letter L-9-09,
6 this requirement will be raised to 95 percent as each agreement is renewed.

7 **Q23.b What are the penalties/consequences applicable to a wholesale customer whose**
8 **power factor does not meet its contractual requirements?**

9 A23.b In accordance with the terms of the Agreement, FortisBC may discontinue the supply of
10 electricity to a wholesale customer at a Point of Delivery for failure to commence remedial
11 action acceptable to FortisBC, within 15 days of receiving notice from FortisBC to correct
12 the breach of any significant practice, term or condition to be observed under the
13 Agreement.

Provincial Economic Outlook

BMO Capital Markets Economics

October 16, 2009

	Cda	BC	Alta	Sask	Man	Ont	Que	NB	NS	PEI	Nfld
Real GDP Growth (% change, chain-weighted)											
2006	2.9	4.4	6.1	-0.3	4.0	2.6	1.7	2.4	0.9	2.4	3.0
2007	2.5	3.0	3.1	2.5	3.3	2.3	2.6	1.7	1.7	2.4	9.1
2008	0.4	-0.3	-0.2	4.4	2.4	-0.4	1.0	0.0	2.0	0.9	-0.1
2009 f	-2.4	-2.2	-2.4	0.2	-0.3	-3.5	-1.4	-0.6	-0.5	-1.9	-3.4
2010 f	2.6	2.4	2.5	2.3	2.4	2.7	2.5	2.0	1.9	1.3	2.7

Employment Growth (% change)

	Cda	BC	Alta	Sask	Man	Ont	Que	NB	NS	PEI	Nfld
2006	1.9	3.1	4.8	1.7	1.2	1.5	1.3	1.4	-0.3	0.5	0.7
2007	2.3	3.2	4.7	2.1	1.6	1.5	2.3	2.1	1.3	1.2	0.7
2008	1.5	2.1	2.7	2.2	1.7	1.4	0.8	0.9	1.2	1.2	1.4
2009 f	-1.6	-2.3	-1.2	1.6	0.2	-2.4	-1.0	0.0	-0.1	-1.8	-2.4
2010 f	0.8	0.9	0.8	0.7	1.3	1.0	0.5	1.0	0.8	0.7	0.5

Unemployment Rate (percent)

	Cda	BC	Alta	Sask	Man	Ont	Que	NB	NS	PEI	Nfld
2006	6.3	4.8	3.4	4.6	4.3	6.3	8.0	8.7	7.9	11.1	14.8
2007	6.0	4.2	3.5	4.2	4.4	6.4	7.2	7.6	8.1	10.3	13.6
2008	6.1	4.6	3.6	4.1	4.1	6.5	7.3	8.6	7.7	10.7	13.3
2009 f	8.3	7.3	6.6	4.8	5.1	9.1	8.6	8.8	9.2	12.4	15.4
2010 f	8.6	7.4	7.0	4.9	5.5	9.5	9.0	8.8	9.4	13.3	15.5

Housing Starts (thousands)

	Cda	BC	Alta	Sask	Man	Ont	Que	NB	NS	PEI	Nfld
2006	229.1	36.6	49.1	3.7	5.0	74.4	48.0	4.0	5.2	0.8	2.3
2007	227.9	39.3	48.1	5.9	5.8	68.0	48.7	4.1	4.8	0.7	2.6
2008	211.4	34.3	29.0	6.8	5.6	75.6	47.9	4.2	4.3	0.7	3.2
2009 f	141.5	16.1	17.5	3.5	4.1	46.8	42.8	3.5	3.5	0.6	3.1
2010 f	150.0	18.5	19.8	3.3	4.3	50.5	43.0	3.6	3.5	0.6	3.0

Consumer Price Index (% change)

	Cda	BC	Alta	Sask	Man	Ont	Que	NB	NS	PEI	Nfld
2006	2.0	1.7	3.9	2.0	1.9	1.8	1.7	1.7	2.1	2.2	1.8
2007	2.1	1.8	4.9	2.9	2.1	1.8	1.7	1.9	1.9	1.8	1.6
2008	2.4	2.1	3.2	3.2	2.2	2.3	2.1	1.7	3.0	3.4	2.9
2009 f	0.2	0.0	-0.2	1.1	0.7	0.3	0.3	-0.2	-0.5	-0.4	0.2
2010 f	1.6	1.9	1.8	1.6	1.2	1.6	1.4	0.7	0.8	1.0	1.3

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1 **1.0 Reference: Tab 3, Page 4, Table 3.1.1**

2 **Q1a How are the DSM savings going to triple from 11 to 30 GWh in one year?**

3 A1a The preliminary filing on October 1st was based on actual results to July 2009 with the
4 remainder of 2009 as forecast. Forecast 2009 DSM for power purchase expenses in this
5 summary relate to the DSM forecasts for new savings for the forecast period of August to
6 December 2009 that are considered a resource for upcoming power purchases. The 11 GWh
7 then is the remainder, and not full year DSM expectations for 2009. Plan DSM savings for 2010
8 are 28 GWh, which have been rounded up to the nearest ten (i.e. 30).

1 **2.0 Reference: Tab 3, Page 4, Table 3.1.1**

2 Q2a Please explain the 18% increase in energy costs from 2008 to 2010 Fcst.

3 A2a The total forecasted increase in power purchase costs in 2010, as compared to 2008, is \$11.2
4 million, explained as follows:

5	Load growth	\$2.5 million
---	-------------	---------------

6	BC Hydro and Brilliant rate increases	\$5.7 million
---	---------------------------------------	---------------

7	Marketing activities	\$3.0 million
---	----------------------	---------------

8 Marketing activities includes reduced summer surplus sales and displaced 2008 BC Hydro
9 purchases with cheaper market alternatives.

10 **Q2b Please explain the 10% increase in capacity costs from 2008 to 2010 Fcst.**

11 A2b Please refer to BCMEU 2a.

- 1 **3.0 Reference: Tab 3, Page 9, Table 3.2.5**
- 2 **Q3a Why does the Waneta Management fee reduce from \$368,000 in 2008 to \$265,000 in**
- 3 **2010?**
- 4 A3a Please see response to BCUC IR Q5.3.

1 **4.0 Reference: Tab 3, Page 21, Line 26**

2 **Q4a 2010 Capital expenditures are expected to increase by 42 / 55% over 2008 / 2009. How**
3 **does the company plan to secure resources to support this level of activity?**

4 A4a To secure resources to support the reported level of activity FortisBC has made plans to
5 contract significant portions of the work. A large portion of the increase is within the
6 Transmission & Station growth (\$37.271 million) category which captures the Okanagan
7 Transmission Re-enforcement ("OTR") and Benvoulin Station projects both of which will have
8 significant portions of the projects contracted.

9 **Q4b For T&D Capital expenditures what is the planned increase in T&D capacity? Please**
10 **compare to expected load growth to estimate how long before additional major T&D**
11 **upgrades will again be required.**

12 A4b During 2010, three capacity increase projects will be completed; the Ellison Distribution Source,
13 the Benvoulin Distribution Source, and the Recreation Capacity Increase. Combined, these
14 projects will add 120 MVA of winter distribution transformation in the Kelowna area. With the
15 exclusion of the Okanagan Transmission Reinforcement ("OTR") Project (which will not be
16 completed in 2010), no other capacity increase projects are scheduled for elsewhere in the
17 FortisBC system. The Company is currently in the process of conducting a long-term study, both
18 for the Kelowna area and for the overall FortisBC system, which will help determine any future
19 upgrades required due to load growth.

1 **5.0 Reference: Tab 5, Page 3, Table 5.0**

2 **City of Nelson loss adjustment (2) GWh in 2009 approved and 0 GWh thereafter.**

3 **Q5a Please explain what this is for.**

4 A5a In July 2008 Nelson Hydro began exporting for sale out of FortisBC's service territory a portion
5 of its generation and in May 2009 ceased to export this power. Incremental losses associated
6 with the increased sales to the City of Nelson for their exports were recovered during this period
7 through the wholesale wheeling tariff. As these exports have ceased there are no future loss
8 adjustments required in the load forecast.

6.0 Reference: Tab 5, Page 8, Lines 12 to 16.

“The largest increase in the 2010 industrial load forecast stems from the augmented annual sales to Zellstoff Celgar of approximately 39 GWh due to their planned sale of generation to BC Hydro, as outlined in section 5.1 above.”

Sec 5.1 identifies the expected start date of Zellstoff Celgar sales to BC Hydro.

Q6a Please explain how Zellstoff Celgar sales to BC Hydro result in an increase in sales from FortisBC to Zellstoff Celgar.

A6a Guided by the policy actions 2007 BC Energy Plan BC Hydro conducted a call for power to utilize wood fibre and biomass fuel sources. Zellstoff Celgar has become a net exporter of electricity and was successful in its bid to the BC Hydro call for power. Celgar will be selling a portion of its generation to BC Hydro and will therefore require additional energy from FortisBC for its operations.

1 **7.0 Reference: Tab 7, Page 6, Lines 4 to 7**

2 **The OTR Project spending is forecast at \$20.1 million compared to a plan of \$65.3 million**
3 **attributed to favorable contract pricing and refined schedules.**

4 **Q7a Please provide more detail to show how much of this is due to favorable contract pricing**
5 **and how much is due to refining the schedules.**

6 A7a Please see the response to BCUC IR Q67.1. The AFUDC savings shown in the table are
7 primarily due to the refined schedule, optimized cash flow resulting from staged material and
8 equipment delivery's and contractor schedule submissions.

9 **Q7b Please compare the original planned schedule with the refined schedule.**

10 A7b The refined schedule primarily addresses material and equipment deliveries and optimized
11 contractor submissions for work completion. In-service dates have remained the same as in the
12 update submitted to the BCUC in March 2009.

1.0 Reference: Demand Side Management Study

FortisBC notes in regards to the Demand Side Management Study in the 2010 Revenue Requirements Application of FortisBC (*"the 2010 RRA"*):

"In its 2009 Revenue Requirements Application, the Company applied for and received approval for expenditures of approximately \$70,000 (\$100,000 before tax), which are being used for the Residential and Commercial End-Use Surveys. The balance is allocated to a Conservation and Demand Potential Review and the Company is hereby applying for an additional \$118,000 (\$165,000 before tax) in 2010 to complete this work."¹

Q1.1 OEIA requested in regards to the DSM Study from the 2009 Revenue Requirement Application of FortisBC (*"the 2009 RRA"*): *"Please describe in greater detail what the \$100,000 amount is intended to cover."*²

The answer provided by FortisBC:

"The \$100,000 requested for the DSM Study will be guided by the DSM Strategic Plan, and will focus on the preparation of an updated Conservation Potential Review ('CPR'). The components of this review include:

- Communication and Stakeholder Involvement Plan;***
- Data Collection and Retrieval;***
- Review of similar CPR studies;***
- FortisBC customer segmentation;***
- End-use equipment surveys;***
- Market forecast of customer potential for reducing energy use and peak demand; and***
- Recommendations for enhanced DSM programs in 2011-2020."***³

We note that Financial Schedules in *the 2010 RRA* shows expected costs of \$100K for 2009⁴.

¹ Exhibit B-1, Tab 3, Section 3.7.2 x, Page 30

² FortisBC 2009 RRA, Exhibit B-4, OEIA IR#1, Q8.1, Page 28

³ FortisBC 2009 RRA, Exhibit B-4, BCUC IR#1, A26.1, Page 64

Q1.1.1 Please describe what work was done for each item in the above list of “components” provided in the 2009 RRA (for the DSM Study).

A1.1.1 FortisBC fielded several Residential and Commercial End-Use Surveys (“R/CEUS”) and has compiled the responses received from these surveys and compiled a draft report. The Conservation Potential Review (“2010 CPR”) was tendered, the contract was awarded and the work is now underway. The report is due in the 1st quarter of 2010.

Q1.1.2 As noted by FortisBC above, the \$100,000 for DSM Study was for “the preparation of an updated Conservation Potential Review (‘CPR’).⁵ Please provide a copy of the updated Conservation Potential Review.

A1.1.2 As stated in the response to Q1.1.1 above, the CPR is due in the 1st quarter of 2010.

Q1.1.3 Please provide any other reports or documents generated from the work of the DSM Study.

A1.1.3 As stated in A1.1.1 the R/CEUS reports have been received in draft form, but are not finalized and are not ready for release.

Q1.2 OEIA requested in regards to the upcoming DSM Study in the 2009 RRA: “Please indicate the stakeholder consultation process intended to be used in conjunction with the DSM Study project.”⁶ The answer from FortisBC: “The stakeholder consultation process has not yet been determined.”⁷

Q1.2.1 Please discuss the stakeholder consultation process that was done in regards to the DSM Study throughout 2009. Please mention the stakeholders that were involved and the particulars of the meetings (location, date, subject matter).

A1.2.1 To date, the DSM Study has involved only the process of tendering the R/CEUS reports and the 2010 CPR. Stakeholder involvement will begin in the latter stages of

⁴ Exhibit B-1, Tab 4, Page 10, Table 1-B (2009), Line 67

⁵ FortisBC 2009 RRA, Exhibit B-4, BCUC IR#1, A26.1, Page 64

⁶ FortisBC 2009 RRA, Exhibit B-4, OEIA IR#1, Q8.3, Page 28

⁷ FortisBC 2009 RRA, Exhibit B-4, OEIA IR#1, A8.3, Page 28

the 2010 CPR, and in the subsequent 2011 DSM planning phase which develops the DSM programs over the 2011-2020 planning horizon.

Q1.3 OEIA requested in regards to the upcoming DSM Study in *the 2009 RRA*: “Please describe in detail how the DSM Advisory Committee will be involved with the DSM Study project.”⁸ The answer from FortisBC: “The DSM Advisory Committee will be used in an advisory role with respect to the DSM Study project.”⁹

Q1.3.1 Please describe in detail how the DSM Advisory Committee was used in an advisory role with respect to the DSM Study project throughout 2009.

A1.3.1 As stated in the response to Q1.2.1 above, the DSM Advisory Committee (“DSMAC”) has been advised of the process underway, but their hands-on involvement will not begin until the 1st Quarter of 2010.

Q1.4 FortisBC in *the 2010 RRA* notes that “The balance is allocated to a Conservation and Demand Potential Review and the Company is hereby applying for an additional \$118,000 (\$165,000 before tax) in 2010 to complete this work.”¹⁰

Q1.4.1 It is not clear what the word “balance” refers to; please confirm that “balance” refers to balance of the overall DSM Study that was not done in 2009 and therefore needs to be covered in 2010. If not, please clarify.

A1.4.1 The full cost of the R/CEUS reports and 2010 CPR were not covered by the DSM Study allocation in 2009, therefore additional funding is required to complete the work.

⁸ FortisBC 2009 RRA, Exhibit B-4, OEIA IR#1, Q8.3, Page 28

⁹ FortisBC 2009 RRA, Exhibit B-4, OEIA IR#1, A8.3, Page 28

¹⁰ Exhibit B-1, Tab 3, Section 3.2.7 x, Page 30

1 **Q1.4.2 Please explain why more funding is required for the “*Conservation and***
2 ***Demand Potential Review*” for 2010¹¹, when the \$100,000 in 2009 was already**
3 **to cover “*the preparation of an updated Conservation Potential Review***
4 **(“CPR”)”¹².**

5 A1.4.2 In the Strategic DSM Report, filed in December 2008, Table 3 contained a
6 preliminary cost estimate of \$255,000 to complete the DSM Study. The combined
7 funding requests in 2009 and 2010 total \$265,000.

8 **Q1.4.3 Please explain if there is any significance to the difference in the terms**
9 **“*Conservation Potential Review*”¹³ and “*Conservation and Demand Potential***
10 ***Review*”¹⁴.**

11 A1.4.3 A Conservation and Demand Potential Review is more comprehensive in that its
12 scope includes measures intended specifically to reduce the electrical demand
13 served by the utility in addition to energy-specific measures.

14 **Q1.4.4 Please describe in greater detail what the \$165,000 amount is intended to**
15 **cover.**

16 A1.4.4 The majority of this amount will cover the completion of the 2010 CPR, and the
17 remainder will be used to integrate the 2011 DSM Plan.

¹¹ Exhibit B-1, Tab 3, Section 3.2.7 x, Page 30

¹² FortisBC 2009 RRA, Exhibit B-4, BCUC IR#1, A26.1, Page 64

¹³ FortisBC 2009 RRA, Exhibit B-4, BCUC IR#1, A26.1, Page 64

¹⁴ Exhibit B-1, Tab 3, Section 3.2.7 x, Page 30

1 **Q1.5 FortisBC in the 2010 RRA notes that “In December 2008 the Company filed the Strategic**
2 **DSM Report which outlined the objectives to be addressed in the next DSM business**
3 **plan.”¹⁵**

4 **Q1.5.1 Please find attached a copy of the Strategic DSM Report of December 2008¹⁶.**
5 **Please confirm that this attachment is the Strategic DSM Report as indicated in**
6 **the 2010 RRA.**

7 A1.5.1 Confirmed.

8 **Q1.5.2 Within this Strategic DSM Report, FortisBC notes:**

9 **“For 2009, \$100,000 has been approved for the 2011 DSM Plan as part of the**
10 **2009 Revenue Requirements application.”¹⁷**

11 **Q1.5.2.1 Please confirm that the “2011 DSM Plan” as noted in the Strategic**
12 **DSM Report is the same as the “DSM Study” as noted in the 2010**
13 **RRA. If not, please explain.**

14 A1.5.2.1 Confirmed. The terminology used in the RRAs - DSM Study - is a more
15 generic description of the overall process which included the R/CEUS,
16 2010 CPR and ultimately the end-result: the 2011 DSM Plan.

¹⁵ Exhibit B-1, Tab 3, Section 3.2.7 x, Page 30

¹⁶ Appendix A:

¹⁷ Appendix A: FortisBC 2008 Strategic DSM Report, Dec 2008, Page 22

1 **Q1.5.2.2 The Strategic DSM Report contains a Preliminary Cost Estimate and**
2 **Cost breakdowns according to Categories totaling \$255,000¹⁸.**
3 **Please indicate how the \$100,000 for the year 2009 in *the 2010 RRA***
4 **is broken down with respect to the listed Categories in the Strategic**
5 **DSM Report. Please describe progress made in the year 2009 in**
6 **reference to those Categories.**

7 A1.5.2.2 FortisBC assumes the question refers to Table 3. The \$100,000 spent in
8 2009 has been spent primarily on end-use surveys and early work on the
9 CPR, which both contribute to a number of expenditure categories
10 including the 50 percent Target, Marginal Cost of Energy and Capacity,
11 Developing Conservation Potential for Energy and Capacity, Reduce the
12 Capacity Deficit and Promote New Technologies. Expenditures have also
13 been made in the Project Management and Updating the Monitoring and
14 Evaluation Plans categories. No single category is yet complete, with the
15 bulk of the progress made on the Develop Conservation Potential for
16 Energy and Capacity, which is a fundamental building block of a future
17 application.

18 **Q1.5.2.3 Given the latest utility interest and stimulus money being put into**
19 **the Smart Grid, does FortisBC plan to include Smart Grid in its 2011**
20 **DSM Plan?**

21 A1.5.2.3 A “Smart Grid” has features and benefits not related to energy
22 conservation and DSM and therefore it is not an explicit part of the 2011
23 DSM plan. However, where Smart Grid components, such as Advanced
24 Metering will support the DSM plan objectives, those interdependencies
25 will be noted.

¹⁸ FortisBC 2008 Strategic DSM Report, Dec 2008, Page 22, Table 3

1 **Q1.5.2.4** It is noted that an example of technology to be identified in the 2011
2 **DSM Plan includes “customer owned generation (COG) technologies**
3 **if eligible for net metering tariff”¹⁹. Please discuss whether or not**
4 **“Feed-In Tariffs” will be considered in the 2011 DSM Plan.**

5 A1.5.2.4 No, Feed-In Tariffs are not part of the 2011 DSM Plan. FortisBC believes
6 that these types of tariffs, if used at all, are policy measures most
7 appropriately introduced by government.

8 **Q1.5.2.5** Please discuss whether or not the following topics are planned to be
9 **considered in the 2011 DSM Plan: electric vehicles, solar**
10 **photovoltaic, distributed generation, wind and microhydro²⁰.**

11 A1.5.2.5 Electric vehicles would be considered a load addition at this time
12 (although there is some discussion of using them for distributed
13 generation as well) and will be factored into the load forecast as
14 appropriate. The other technologies listed will be evaluated as DSM
15 measures and thus considered.

¹⁹ FortisBC 2008 Strategic DSM Report, Dec 2008, Page 21

²⁰ For more information on many of these topics, please reference submissions to the Section 5
Transmission Inquiry; Exhibits C58-3 & C58-4

Q1.5.2.6 FortisBC notes in its Load Forecasts in *the 2010 RRA* that: “*Peak demand is affected by economic activity, the number of customers, use per customer and temperature.*”²¹ [emphasis added]

In addition, FortisBC notes: “*Residential demand is influenced by home characteristics, household consumption patterns, and weather.*”²² [emphasis added]

Given the sensitivity of the peak and residential demand with regards to the temperature and weather, does FortisBC plan to include in the 2011 DSM Plan the topic of potential effects of Climate Change on its Load Forecasts?

A1.5.2.6 No, Climate Change will not be a topic. However Demand Response measures to address peak loads will be evaluated in the 2010 CPR and incorporated into the 2011 DSM Plan where applicable.

Q1.5.2.7 In the *2010 RRA*, it is noted that FortisBC is “*applying for an additional \$118,000 (\$165,000 before taxes) in 2010 to complete the work.*”²³ We note that \$100,000 for 2009 and \$165,000 for 2010 in the *2010 RRA*²⁴ is slightly more than the \$255,000 noted in the *Strategic DSM Report*²⁵. Please provide an updated cost breakdown, in the format as shown in the *Strategic DSM Report*, which totals the \$265,000 total request for 2009 and 2010 and in addition, please include the breakdown of each category for each year, 2009 and 2010 (2 columns for the expenditure column).

A1.5.2.7 The principal inputs to the 2011 DSM plan have been tendered in two parts, namely the R/CEUS and 2010 CPR, thus a cost breakdown using the categories listed in Table 3 referred to in the *Strategic DSM Report* is not possible. Although the individual tender results are confidential, the

²¹ Exhibit B-1, Tab 5, Section 5.5, Page 10

²² Exhibit B-1, Tab 5, Section 5.2.1, Page 5

²³ Exhibit B-1, Tab 3, Section 3.2.7 x, Page 30

²⁴ Exhibit B-1, Tab 3, Section 3.2.7 x, Page 30

²⁵ FortisBC 2008 Strategic DSM Report, Dec 2008, Page 22, Table 3

1 lump sum of the R/CEUS and 2010 CPR tenders amount to \$0.25 million
2 plus miscellaneous expenses.

3 **Q1.5.3 Within the Strategic DSM Report, FortisBC notes that “*this level of expenditure*
4 *will result in increased energy savings by the end of 2010 by providing*”²⁶:**

5 . . .

6 **“Increased residential home retrofit program take-up due to the collaborative
7 provincial LiveSmart BC program”²⁷**

8 . . .

9 **It is noted that as of August 15, 2009, the LiveSmart BC had stopped its
10 programs for new participants²⁸. Please discuss how FortisBC intends to
11 compensate for the loss of the LiveSmart BC program. Please also discuss the
12 effect of the changes in the cost of the program and expected energy savings.**

13 **A1.5.3** Currently, there is a backlog of 30,000 qualified homeowners province-wide who
14 have up to 18 months in which to complete their recommended DSM upgrades and
15 FortisBC will continue to incent those within the service area. The province is
16 expected to continue its audit subsidy to March 31st, 2010 and FortisBC will extend
17 its subsidy to December 31, 2010. FortisBC is in discussion with the other two
18 principal public utilities on a collaborative offering going forward. There is no change
19 to the program cost or expected energy savings at this time.

²⁶ Appendix A: FortisBC 2008 Strategic DSM Report, Dec 2008, Page 6

²⁷ Appendix A: FortisBC 2008 Strategic DSM Report, Dec 2008, Page 6

²⁸ Appendix C: LiveSmart BC announcement. http://www.livesmartbc.ca/homes/h_rebates.html

2.0 Reference: Demand Side Management

Q2.1 It is noted that the Prior Year Directives states that: “FortisBC commits to filing DSM results for previous year and previous six months before or with the Annual Review materials, including the incentive calculations and the other reports discussed at page 15 of (updated) Tab 7 from 2008 Revenue Requirement.”²⁹

Q2.1.1 It was noted that “The December 31, 2008 report was filed with the Commission on June 3, 2009.”³⁰ Please provide the December 31, 2008 DSM report.

A2.1.1 The report is attached as Appendix OEIA 2.1.1.

Q2.1.2 It was noted that “The June 30, 2009 report will be filed with the Commission on or before November 2, 2009.”³¹ Please provide the June 30, 2009 DSM report as soon as it is available.

A2.1.2 The report, which was filed on October 30, 2009, is attached as Appendix OEIA 2.1.2.

Q2.1.3 Please provide semi-annual DSM reports for the last 5 years. Please discuss the trends including a discussion of any updates based upon the latest information.

A2.1.3 The December 31, 2008 and June 30, 2009 reports are attached as Appendices OEIA 2.1.1 and 2.1.2. The earlier reports are attached in electronic form. FortisBC is unable to provide a copy of the June 30, 2007 report.

²⁹ Exhibit B-1, Appendix A, Page 2

³⁰ Exhibit B-1, Appendix A, Page 2

³¹ Exhibit B-1, Appendix A, Page 2

Q2.2 We note that within the 2009 Forecast section of *the 2010 RRA*³², FortisBC has included a table of Plan/Forecast/Difference for all categories - Generation³³, Transmission and Stations³⁴, Distribution³⁵, Telecommunication³⁶, and Information Systems and General Plant³⁷ and not for Demand Side Management³⁸. Please provide a Plan/Forecast/Difference table for Demand Side Management.

A2.2

Demand Side Management	Plan 2009	Forecast 2009	Difference 2009
Nominal Cost	3,668	3,590	78
Tax Effect	(1,155)	(1,077)	(78)
Net Cost	(2,513)	(2,513)	-

Q2.2.1 Similarly, please provide a table for the Demand Side Management 2010 Forecast³⁹.

A2.2.1

Demand Side Management	Plan 2010	Forecast 2010	Difference 2010
Nominal Cost	3,952	3,952	-
Tax Effect	(1,245)	(1,126)	(119)
Net Cost	(2,707)	(2,826)	119

³² Exhibit B-1, Tab 7, Section 7.1, Pages 3 to 10

³³ Exhibit B-1, Tab 7, Section 7.1.1, Page 4

³⁴ Exhibit B-1, Tab 7, Section 7.1.2, Page 5

³⁵ Exhibit B-1, Tab 7, Section 7.1.3, Page 7

³⁶ Exhibit B-1, Tab 7, Section 7.1.4, Page 8

³⁷ Exhibit B-1, Tab 7, Section 7.1.5, Page 9

³⁸ Exhibit B-1, Tab 7, Section 7.1.6, Pages 9 to 10

³⁹ Exhibit B-1, Tab 7, Section 7.2.6, Page 14

Q2.3 FortisBC notes that: “Demand Side Management expenditures of \$2.5 million (net of tax) involve initiatives that provide information, engineering studies and rebates that promote energy efficiency and conservation. Through this initiative, the Company supports such programs as energy efficient lighting, air and ground source heat pumps, and industrial efficiencies. Planned expenditures beginning in 2009 have been increased in support of the 2007 BC Energy Plan.”⁴⁰

Q2.3.1 Please discuss in detail how the DSM expenditures “in 2009 have been increased in support of the 2007 BC Energy Plan”⁴¹.

A2.3.1 Expenditures in 2009 and 2010 were increased beyond historical expenditure levels with the intent of increasing the overall energy savings achieved by the FortisBC DSM program. The increased overall energy savings were in support of the 2007 BC Energy Plan and detailed in the 2009/2010 Capital Expenditure Plan.

Q2.3.2 Please describe in greater detail the “initiatives” for both 2009 and 2010, including clearly identifying any new initiatives.

A2.3.2 The DSM initiatives in the 2009 and 2010 plan were detailed in the Capital Expenditure Plan application and summarized in the following table:

Table 6.2: Expenditures and Savings by Sector

	Sectors	2008 Plan Costs (\$000s)	2008 Plan Savings GWh	2009 Plan Costs (\$000s)	2009 Plan Savings GWh	2010 Plan Costs (\$000s)	2010 Plan Savings GWh
1	Residential						
2	Existing Residential base	1,023	8.4	1,023	8.4	1,023	8.4
3	Change to 2008 Base	-	-	(9)	0.7	107	2.1
4	New programs\incentives	-	-	377	1.6	386	1.6
5	Residential Total	1,023	8.4	1,391	10.7	1,516	12.1

⁴⁰ Exhibit B-1, Tab 7, Section 7.1.6, Page 9

⁴¹ Exhibit B-1, Tab 7, Section 7.1.6, Page 9

Project No. 3698570: Application for 2010 Revenue Requirement

Requestor Name: Okanagan Environmental Industry Alliance

Information Request No: 1

Request Date: October 16, 2009

Response Date: October 30, 2009

6	General Service						
7	Existing General Service base	754	9.1	754	9.1	754	9.1
8	Change to 2008 Base	-	-	98	-	188	0.5
9	New programs\incentives	-	-	436	2.5	438	2.5
10	General Service Total	754	9.1	1,287	11.6	1,380	12.1
11	Industrial						
12	Existing Industrial base	200	2.0	200	2.0	200	2.0
13	Change to 2008 Base	-	-	58	0.3	100	0.7
14	New programs\incentives	-	-	87	0.7	88	0.7
15	Industrial Total	200	2.0	345	3.0	388	3.4
16	All Programs						
17	2008 Base	1,977	20	1,977	20	1,977	20
18	Change to 2008 Base	-	-	147	1	395	3
19	New programs\incentives	-	-	899	5	912	5
20	Total All Programs	1,977	20	3,023	26	3,284	28
21	Conservation Culture	-	-	141	-	148	-
22	Planning & Evaluation	378	-	503	-	519	-
23	Total	2,355	20	3,668	26	3,952	28

1 **Q2.4 FortisBC notes that its projects: “Ensure a coordinated approach to conservation and**
2 **efficiency is actively pursued in British Columbia . . .”⁴²**

3 ***Please describe how a coordinated approach is being pursued.***

4 A2.4 Two specific DSM initiatives that “Ensure a coordinated approach to conservation and efficiency
5 is actively pursued in British Columbia . . .” are FortisBC’s DSM programs offered in conjunction
6 with the provincial LiveSmart program and its participation on the provincial government’s BC
7 Provincial Energy Conservation and Efficiency committee.

8 **Q2.5 Please list and provide the minutes of all meetings and conference calls, agendas and**
9 **background information of the DSM Advisory Committee in the last three years.**

10 A2.5 Please refer to Appendix OEIA 2.5. FortisBC is unable to provide a document for 2007.

11 **Q2.6 FortisBC notes that in regards to Demand Side Management, that “The approved 2010**
12 **spending level is required for the continuation of the Company’s existing DSM**
13 **programs.”⁴³ Does this mean that there are no new DSM programs planned? If there are**
14 **no new programs, please explain why not, and how DSM energy savings levels will be**
15 **obtained. If there are new programs, please describe them.**

16 A2.6 The 09/10 Capital Expenditure Plan (“CEP”) described a number of new programs including
17 residential solar hot water, low income (affordable) housing pilots, expansion of small business
18 audits, collaboration with PSECA (Public Sector Energy Conservation Agreement), and enabling
19 workshops for the industrial sector.

20 **Q2.7 We note that FortisBC states that “Reductions in energy consumption due to the DSM**
21 **programs are forecast at 30 GWh.”⁴⁴**

22 **Q2.7.1 Is the 30 GWh a forecast for 2010?**

23 A2.7.1 Yes, it is the rounded version of the 29.947 GWh shown in Table 6.3.

⁴² Exhibit B-1, Tab 7, Section 7.1.6, Page 9

⁴³ Exhibit B-1, Tab 3, Section 3.7.2, Page 22

⁴⁴ Exhibit B-1, Tab 5, Section 5.0, Page 3

Q2.7.2 Are the monthly numbers corresponding to the 30 GWh (e.g. 29.947 GWh) listed in Table 6.3 of *the 2010 RRA*⁴⁵? If not, please explain.

A2.7.2 Yes.

Q2.7.3 Please provide three significant decimals for all monthly DSM GWh values (e.g. 2.312 instead of 2); this seems reasonable given the final yearly number (29.947) and the monthly values in the FortisBC 2008 RRA⁴⁶ all have three significant decimals. We suggest to do this for both the 6.2 and 6.3 tables.

A2.7.3 Distributing DSM energy savings over the course of the year is best done in whole numbers, i.e. GWh. Displaying three decimals places does not improve the accuracy of the DSM forecast, as the nature of DSM resource acquisition is inherently quite variable and subject to customer project timing.

⁴⁵ Exhibit B-1, Tab 6, Section 6.4, Table 6.3, Page 15, Line 16

⁴⁶ FortisBC 2008 RRA, Exhibit B-1, Tab 6, Section 6.4, Table 6.2, Page 16

3.0 Reference: Cost of Service and Rate Design Application

Q3.1 FortisBC notes that the Cost of Service (COSA) and Rate Design Application (RDA) is expected to be approximately \$760,000 before tax⁴⁷.

Q3.1.1 In response to OEIA's request in the 2009 RRA, FortisBC provided breakdowns of costs⁴⁸ and expenditures to date⁴⁹. Please expand those tables to include the latest 2009 data.

A3.1.1 The information requested is provided below.

Table OEIA 3.1.1a Actual and Forecast Expenditures

		2007 Actual	2008 Actual	2009 Forecast	2010 Forecast	Total	2009 RRA Forecast	Variance
		(\$000s)						
1	Legal Fees	16	60	14	90	180	180	-
2	Consulting Fees	23	164	42	65	295	270	25
3	Commission Expense	-	-	-	100	100	60	40
4	Intervenor Funding	-	-	-	60	60	60	-
5	Stakeholder Consultation	-	-	50	-	50	20	30
6	Advertising Expense	-	-	-	-	-	15	(15)
7	Labour and Staff Expense	4	12	-	7	23	24	(1)
8	Printing and General Expense	-	-	7	5	12	15	(3)
9	Cosa/RDA	44	236	113	327	720	644	76
10	Net Metering		14	26	-	40	-	40
11	Total	44	250	139	327	760	644	116
12	Income Tax Impact	(15)	(78)	(42)	(93)	(227)	(198)	(29)
13	Net Deferred Charges	29	172	97	234	533	446	87

⁴⁷ Exhibit B-1, Tab 3, Section 3.7.2 b v, Page 24

⁴⁸ FortisBC 2009 RRA, Exhibit B-4, OEIA IR#1, A3.1, Table A3.1, Page 6

⁴⁹ FortisBC 2009 RRA, Exhibit B-4, OEIA IR#1, A3.1.1, Table A3.1.1, Page 6 & 7

Table OEIA 3.1.1b Actual Expenditures to September 30, 2009-10-26

		2007	2008	2009	Total
		(\$000s)			
1	Legal Fees	16	60	12	88
2	Consulting Fees	24	164	170	358
3	Commission Expense	-	-	-	-
4	Intervenor Funding	-	-	-	-
5	Stakeholder Consultation	-	-	63	63
6	Advertising Expense	-	-	17	17
7	Labour and Staff Expense	4	12	23	39
8	Printing and General Expense	-	-	3	3
9	Cosa/RDA	44	236	288	568
10	Net Metering		14	26	40
11	Total	44	250	314	608
12	Income Tax Impact	(15)	(78)	(94)	(187)
13	Net Deferred Charges	29	172	220	421

Q3.1.2 Please describe in detail the work that has been done to date on the COSA and the RDA.

A3.1.2 FortisBC's 2009 COSA and RDA Application is being filed concurrently with information request responses to this Revenue Requirements Application - on October 30, 2009. A full description of the consultation and results of the work that has gone into the RRA can be found in that document. Please refer to the 2009 FortisBC COSA and RDA, which will be available on the FortisBC website on October 30, 2009 for further information.

Q3.1.3 Please describe the work yet to be done on the COSA and the RDA.

A3.1.3 As described in the above response, the COSA and RDA is before the British Columbia Utilities Commission. Future work will involve a formal regulatory process, and after a Decision has been rendered, implementation of rates in accordance with the applicable order. Specific details cannot be provided in advance of the regulatory process.

Q3.1.4 Please describe in detail the stakeholder consultation done to date for the COSA and RDA. Please provide all agendas, minutes and invitation lists of all meetings and presentations. Also, please indicate the corresponding expenditure amount of the stakeholder consultation done to date.

A3.1.4 Please refer to the response to IR Q3.1.2.

Q3.1.5 Please describe the stakeholder consultation still planned to be done for the COSA and RDA, including milestone time estimates. Please indicate the expenditure amount for the COSA and RDA still planned for stakeholder consultation.

A3.1.5 Stakeholder consultation for the COSA and RDA has concluded.

4.0 Reference: Automated Meter Infrastructure

FortisBC indicated in this 2010 RRA: "*As directed by the Commission in Order No. G-168-08, the costs of the AMI program development are held in a deferral account pending a CPCN application which is expected to be filed in 2010.*"⁵⁰

Q4.1 We note that the initial balance of the Advanced Metering Infrastructure Deferred Charge for Dec 31, 2008 was \$243K in *the 2010 RRA*⁵¹, yet there is no line item for the Advanced Meter Infrastructure for Dec 31, 2008 in *the 2009 RRA*⁵². Please explain the lack of continuity between the two RRAs. Please explain why the Dec 31, 2008 Advanced Metering Infrastructure Deferred Charge in *the 2010 RRA* is not \$0K.

A4.1 In the initial 2009 RRA, the deferred balance costs were anticipated to be transferred to an AMI capital project during 2008. Order G-168-08, issued on November 12, 2008, denied FortisBC's AMI CPCN, it also encouraged FortisBC to further develop and, in due course, re-apply for a more comprehensive and complete AMI program, pursuant to the 2009 NSA, AMI expenditures are being captured in a deferred account. This treatment was reflected in final rates as shown in the schedules attached to Order G-193-08 (see page 30 of Appendix A to G-193-08).

Q4.1.1 Please provide cost breakdowns and descriptions of the expenditures for the \$243K.

A4.1.1 Please find below the cost breakdowns for the \$243,000:

Project Phase	Amount (\$000s)
1.0 Requirements Definition	14.9
2.0 Cost & Benefit Estimates	28.6
3.0 CPCN Submission & Regulatory Process	200.2
Total Costs	243.7

Q4.1.2 Please explain why the Advanced Meter Infrastructure costs were not anticipated in *the 2009 RRA*.

Q4.1.2 Please see the answer to A4.1 above.

⁵⁰ Exhibit B-1, Tab 3, Section 3.7.2 iv, Page 27

⁵¹ Exhibit B-1, Tab 4, Table 1-B, Page 10, Line 47

⁵² FortisBC 2009 RRA, Tab 4, Table 1-B, Page 10

Q4.2 We note that the Advanced Metering Infrastructure has an expected cost of a further \$500K for 2009⁵³ and \$600K for 2010⁵⁴. Please provide cost breakdowns and descriptions of the expenditures for the \$500K and \$600K.

A4.2 The additional expenses expected in 2009 and 2010 totaling \$1.1 million are required to further develop FortisBC's application so that it addresses the concerns outlined in the Commission's Decision G-168-08.

The reapplication process includes an in-depth requirements definition which builds on the work done in the original application by developing comprehensive Use Cases for AMI. It also includes the issuance of a Request for Proposal which will provide greater detail on cost estimates as well as the technology that will be implemented.

In addition, costs are expected in support of utility collaboration which includes not only collaboration with BC utilities but also with other North American utilities who have experience with AMI systems.

A Future Program Study will be completed to estimate benefits and costs of future programs enabled by AMI.

The information gathered in these phases of the project will form the basis of the AMI reapplication. Expenses broken down by project phase are as follows:

Project Phase	Amount (\$000s)
1. Requirements Definition	275.4
2. RFP Process	251.8
3. Utility Collaboration & Site Assessments	100.9
4. AMI Future Program Study	86.7
5. Implementation Planning	86.3
6. CPCN Submission & Regulatory Process	202.3
7. Consultation	40.0
7. Installation RFP	72.8
Total Costs	1,116.2

⁵³ Exhibit B-1, Tab 4, Table 1-B, Page 10, Line 47

⁵⁴ Exhibit B-1, Tab 4, Table 1-B, Page 10, Line 47

Q4.3 Please comment on the linkages if any between the deferred charges of the “Advanced Meter Reading Feasibility Study” as discussed in the 2009 RRA⁵⁵, and the “Advanced Metering Infrastructure (‘AMI’)” as discussed in the 2010 RRA⁵⁶.

A4.3 The Automated Meter Reading Feasibility study described in the 2009 RRA was the foundation of the AMI application that was denied by Order G-168-08. The reapplication will build on the foundation of the original application and address the concerns and issues raised by the Commission in that order. Therefore, the Advanced Metering Infrastructure deferred spending is inclusive of the Advanced Metering Feasibility study noted above.

Q4.4 Please find attached in Appendix B, a copy of a December 3, 2008 BCUC letter, Order G-168-08 and Reasons for Decision⁵⁷. Please confirm that this Appendix contains the Order referenced in the 2010 RRA⁵⁸ as noted above⁵⁹.

A4.4 Confirmed.

Q4.5 It is noted in the Reasons for Decision of Order G-168-08: “The Applications of FortisBC for a Certificate of Public Convenience and Necessity for the Advanced Metering Infrastructure Project are denied.”⁶⁰

Q4.5.1 It is noted that FortisBC expects to file a new CPCN in 2010, and in the Reasons of Decision of the BCUC Order G-168-08 the Commission Panel has provided guidance to FortisBC for its next CPCN. Some points from the Commission Panel from its AMI Decision:

a) “The Commission Panel encourages FortisBC to explore coordinating its meter technology selection with that of BC Hydro with the objective of achieving a cost advantage based on the combined purchasing power of the two utilities.”⁶¹

b) “It is the view of the Commission Panel that any technology such as HAN

⁵⁵ FortisBC 2009 RRA, Tab 3, Section 3.7.2 b v, Page 29

⁵⁶ Exhibit B-1, Tab 3, Section 3.7.2 iv, Page 27

⁵⁷ Appendix B: BCUC Order G-168-08 and Reasons for Decision

⁵⁸ Exhibit B-1, Tab 3, Section 3.7.2 iv, Page 27

⁵⁹ This document, Section 4.0

⁶⁰ Appendix B: BCUC Order G-168-08 and Reasons for Decision, Page 31

⁶¹ Appendix B: BCUC Order G-168-08 and Reasons for Decision, Page 10

1 *should be transferable between/amongst utility service areas, reinforcing*
2 *the view that FortisBC and BC Hydro should coordinate their efforts to*
3 *develop AMI/Smart Meter technology infrastructure projects.”⁶²*

4 *c) “The Commission Panel considers that the application of the*
5 *AMI technologies/protocol, and the opportunities for coordination*
6 *to achieve optimal cost effectiveness have not been*
7 *developed in these Applications to the point where the*
8 *Commission Panel has sufficient evidence before it to assess*
9 *the merits of the AMI Project.”⁶³*

10 *d) “The Commission Panel considers that FortisBC has not been sufficiently*
11 *proactive in conducting consultations and research to determine the extent*
12 *to which its AMI Project can or will be coordinated and/or compatible with*
13 *other utilities, including BC Hydro, the distribution utilities within FortisBC’s*
14 *service area and with its own sister utilities in the natural gas distribution*
15 *sector. The Panel does not consider that distributing and/or exchanging*
16 *information and not hearing any indication of concerns is adequate to*
17 *address and reach a conclusion with respect to the opportunities and*
18 *challenges attendant with implementing this type of technology to the*
19 *benefit of utility customers within the FortisBC franchise and the broader*
20 *public interest across the Province.”⁶⁴*

21 **Given that FortisBC’s first application for the AMI CPCN was denied for a**
22 **range of reasons and that FortisBC intends to file another CPCN in 2010,**
23 **please describe in detail how FortisBC intends to address each issue noted**
24 **above (a to d) so that FortisNC’s next CPCN will not be also denied.**

25 A4.5.1 As discussed in Q4.2 above, the Company confirms that it intends to address all of
26 the concerns and issues listed in Order G-168-06 in its revised application. It is

⁶² Appendix B: BCUC Order G-168-08 and Reasons for Decision, Page 11

⁶³ Appendix B: BCUC Order G-168-08 and Reasons for Decision, Page 12

⁶⁴ Appendix B: BCUC Order G-168-08 and Reasons for Decision, Page 15

1 premature to provide further detail on how exactly this will be done as the AMI
2 reapplication has not yet been sufficiently developed. A revised CPCN application is
3 expected to be filed in 2010 and at that time, each of the issues identified by the
4 Commission will be addressed in detail.

5 **Q4.5.1.1 Please also describe how other issues (other than the points a to d**
6 **shown above) throughout the Reasons of Decision⁶⁵ will be**
7 **addressed so that its next CPCN is not also denied.**

8 A4.5.1.1 Please see the response to Q4.5.1.

9 **Q4.5.1.2 Please discuss if there are expectations that coordination with other**
10 **utilities will increase costs.**

11 A4.5.1.2 Collaboration and coordination with other utilities, combined with site
12 assessments of other AMI installations is expected to increase the cost of
13 the AMI reapplication in the amount of approximately \$100,000 as
14 discussed in A4.2. However, at this time it is premature to determine
15 what impact, if any, coordination would have on the AMI project as a
16 whole.
17

⁶⁵ Appendix B: BCUC Order G-168-08 and Reasons for Decision

5.0 Reference: Section 5 Provincial Transmission Inquiry

FortisBC indicated in this 2010 RRA: “*FortisBC requests approval to defer the costs associated with its participation in the inquiry, currently forecast to be approximately \$141,000 (\$200,000 before tax).*”⁶⁶

Q5.1 Please discuss in greater detail the work that these costs will cover for the Transmission Inquiry.

A5.1 The costs include incremental costs of fully participating in the Section 5 Inquiry, including the compilation of evidence, Information Requests, responses to Information Requests, attendance at the regional hearings, and preparation for and participation in the oral public hearing.

⁶⁶ Exhibit B-1, Tab 3, Section 3.7.2 vii, Page 24 & 25

6.0 Reference: 2009 Resource Plan Update

FortisBC indicated in *the 2010 RRA*: “*Development of the 2009 Resource Plan is expected to cost approximately \$0.7 million after tax (\$1.0 million before tax).*”⁶⁷

Q6.1 It is noted that in *the 2009 RRA*, that the 2008 Resource Plan Update “*will be completed by the end of 2008 at a cost of \$294,000 (net of tax) and the Plan filed in late 2008. The Company will apply for disposition of the costs when the Resource Plan is approved.*”⁶⁸

In answer to OEIA’s IR, FortisBC indicated that the cost would be \$436K⁶⁹ before taxes. *The 2009 RRA* showed the \$436K in Table 1-B⁷⁰, amortized each year at \$88K⁷¹, resulting in \$348K for Dec 31, 2008⁷² and \$261K for Dec 31, 2009⁷³. It shows no further anticipated costs for any Resource Plan in 2009.

In *the 2010 RRA*, the “2008 Resource Plan Update” line item is removed.

Please explain how amortizing is applied to the “2008 Resource Plan Update” in *the 2010 RRA*.

A6.1 The 2009 Resource Plan is the same project previously referred to as “2008 Resource Plan”. The project name reflects the filing date of May 27, 2009. None of the associated costs are being amortized in 2010.

Q6.1.1 In *the 2010 RRA*, a new line item “2009 Resource Plan” is added which did not appear in *the 2009 RRA*. Please explain how the initial value for Dec 31, 2008 of \$405K was derived.

A6.1.1 Please see the response to Q6.1 above.

Q6.1.2 *The 2010 RRA* shows costs of \$195K for the “2009 Resource Plan” in 2009. Please explain why the new costs were not anticipated in *the 2009 RRA*.

A6.1.2 The bulk of the additional costs are related to an expanded program of public consultation and to costs associated with the regulatory review of the Resource Plan.

⁶⁷ Exhibit B-1, Tab 3, Section 3.7.2 v, Page 27

⁶⁸ FortisBC 2009 RRA, Exhibit B-1, Tab 3, Section 3.7.2 b vii, Page 30

⁶⁹ FortisBC 2009 RRA, Exhibit B-4, OEIA IR#1, A6.2, Table A6.2, Page 18

⁷⁰ FortisBC 2009 RRA, Exhibit B-1, Tab 4, Table 1-B, Page 10, Line 43; \$217K + \$219K = \$436K

⁷¹ FortisBC 2009 RRA, Exhibit B-1, Tab 4, Table 1-B, Page 10, Line 43 and Page 11, Line 40

⁷² FortisBC 2009 RRA, Exhibit B-1, Tab 4, Table 1-B, Page 11, Line 40

⁷³ FortisBC 2009 RRA, Exhibit B-1, Tab 4, Table 1-B, Page 11, Line 40

Q6.1.3 Please provide a detailed table of “2009 Resource Plan” costs using a similar format as provided for the “2008 Resource Plan” in answer to OEIA’s IR⁷⁴.

A6.1.3 The requested information is provided below.

	2007	2008	2009	2010	Total
	(\$000s)				
Administration	2	5	24	25	56
General Expense	12	11	12	15	50
Stakeholder Engagement	-	115	19	-	134
Market Analysis	25	-	-	-	25
Planning Margin	27	31	-	-	58
Portfolio Investigation	151	26	35	-	212
Commission/Intervenor Expense	-	-	-	185	185
Legal & Other Regulatory Expense	-	-	105	135	240
Total	217	188	195	360	960
Tax Impact	(74)	(58)	(59)	(103)	(293)
Total (Net of Tax Impact)	143	130	136	257	667

Q6.2 Please describe in detail the stakeholder consultation done to date for the 2009 Resource Plan. Please provide all agendas, minutes and invitation lists of all meetings and presentations.

A6.2 FortisBC completed extensive consultation during 2008. This process was described in A6.3 of OEIA in the 2009 RRA.

Subsequently, in 2009, it was determined that additional consultation was required given the extended time since the 2008 consultation process.

As a result of FortisBC extending invitations to 11 First Nation Bands and a total of 27 Municipalities and Regional Districts, 13 presentations were completed between September 1 and October 30, 2009 with two additional presentations scheduled in November 2009.

A listing of invitees, copies of the invitations, the presentation schedule, questions and comments from each presentation along with a copy of the presentation are attached as Appendix OEIA 6.2.

⁷⁴ FortisBC 2009 RRA, Exhibit B-4, OEIA IR#1, A6.2, Table A6.2, Page 18

1 **Q6.3 Please describe the stakeholder consultation still planned to be done for the 2009**
2 **Resource Plan.**

3 A6.3 Please see the response to Q6.2 above.

4 **Q6.4 FortisBC notes that: “*The 2009 Resource Plan was filed with the BCUC on May 29, 2009,***
5 ***and is currently awaiting the establishment of a regulatory schedule*”⁷⁵. In a letter to**
6 **BCUC in regards to the schedule of the Regulatory Process for the 2009 Resource Plan⁷⁶,**
7 **FortisBC suggests the Regulatory Process start January 15, 2010⁷⁷ with an Evidentiary**
8 **Update. Please discuss the applicability of Section 2.2 of the Ministerial Order M271⁷⁸**
9 **(with a date of June 1, 2009) for each of FortisBC’s ongoing and upcoming regulatory**
10 **processes.**

11 A6.4 Ministerial Order M271 does not apply to the 2009 Resource Plan or the 2009 and 2010 DSM
12 program since both were filed prior to June 1, 2009. The next filing related to DSM programs
13 (expected to be the 2011 DSM Plan) will be subject to the Ministerial Order and thus must be
14 compliant with the DSM regulations that came into force June 1, 2009.

⁷⁵ Exhibit B-1, Tab 3, Section 3.7.2 v, Page 27

⁷⁶ Appendix D: FortisBC letter to BCUC regarding Resource Plan schedule

⁷⁷ Appendix D: FortisBC letter to BCUC regarding Resource Plan schedule, Page 5

⁷⁸ Appendix E: Minister Order M271

7.0 Reference: Prior Years Directives

FortisBC included a number of directives in Appendix A of *the 2010 RRA*⁷⁹. It is noted that a number of the directives of Order G-193-08 are not included in this table – in particular, the Resolutions on Page 5 of 49⁸⁰ of Order G-193-08 Appendix A.

Q7.1 Please confirm that the table of Directives does not contain all Directives to which applies to FortisBC. If not, please explain the Resolutions on Page 5 of 49⁸¹ of Order G-193-08 Appendix A.

A7.1 Confirmed. The table of Prior Year Directives references those items that are relevant to the 2010 Revenue Requirements application.

Q7.2 The first NSP Resolution on Page 5 of 49 of Order G-193-08 states:

“FortisBC will engage in meaningful stakeholder engagement before the Rate Design Application (RDA), Cost of Service, Advanced Meter Infrastructure, DSM Study and Net Metering applications are submitted to the BCUC.”⁸²

Please discuss in detail the stakeholder engagement for each listed process.

A7.2 For the RDA, please refer to the response to IR Q3.1.2. Information on the public consultation activities that preceded the filing of the Net Meter Application were described in that Application and are summarized as follows:

In early March of 2009, the draft Net Metering Application was circulated for review and comment to individuals who had expressed an interest in providing input on the topic during the previous year, and to intervenors in the 2009 Revenue Requirements Application and the 2009-2010 Capital Expenditure Plan workshops. The draft was also sent to intervenors in the BC Hydro Net Metering Re-Pricing Application. On March 17 and 19, 2009, Open Houses were held in Castlegar and Kelowna respectively. The company received numerous written submissions and incorporated some changes from these comments and from input received at the open houses into the final Application that was filed with the Commission.

⁷⁹ Exhibit B-1, Appendix A

⁸⁰ Appendix F: FortisBC 2009 RRA NSP, Page 5 of 49

⁸¹ Appendix F: FortisBC 2009 RRA NSP, Page 5 of 49

⁸² Appendix F: FortisBC 2009 RRA NSP, Page 5 of 49

1 The Advanced Metering Infrastructure (“AMI”) Application is expected to be filed in the third
2 quarter of 2010. Public consultation related to both the AMI Application and the DSM Study is
3 still in the planning phase, but is likely to include;

- 4 • information sessions throughout the service territory open to all;
- 5 • collaboration/coordination meetings with BC Hydro and Terasen Gas;
- 6 • information meeting(s) with the DSM advisory committee and First Nations; and
- 7 • consultation with Wholesale customers and other municipalities within the service
8 territory that may be interested in leveraging the FortisBC infrastructure.

9 **Q7.3 Please confirm that FortisBC intends to follow the other three Resolutions (second, third**
10 **and fourth appearing in the table) on Page 5 of 49⁸³ of Order G- 193-08 Appendix A. If not,**
11 **please explain.**

12 A7.3 Confirmed. The items will be addressed in the respective DSM filings. With regard to item 2 at
13 page 5, the reallocation of stakeholder consultation costs for the Rate Design Application can be
14 seen in the response to OEIA Q3.1.1 above.

⁸³ Appendix F: FortisBC 2009 RRA NSP, Page 5 of 49



FORTISBC INC.
SEMI-ANNUAL DSM REPORT
YEAR ENDED DECEMBER 31, 2008.

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Report Objective

This report provides highlights of the Company's Demand Side Management ("DSM") programs for the year ending December 31, 2008. The presentation format compares actual energy savings and costs to plan, where applicable, provides a statement of financial results and details the DSM incentive for the fiscal year.

Overview of Results for the Year Ended December 31, 2008.

Energy efficiency savings for the year ended December 31, 2008 were 27.3 GW.h, 140 percent of the plan of 19.5 GW.h for the same period. Company costs incurred were \$2,683,000 or 114 percent of the plan \$2,355,000 for the same period. Adding the customers' costs yields a Total Resource Cost ("TRC") of \$5,145,000 for an overall TRC Benefit/Cost ratio of 1.8.

Energy Savings per Sector

	Plan	Actual	% of Plan
	GW.h		Achieved ¹
Residential (FBC)	8.4	9.8	116%
General Service (FBC)	9.1	7.9	87%
Industrial (FBC)	2.0	3.3	165%
Wholesale		6.3	
Total savings (GW.h)	19.5	27.3	140%

¹Differences due to rounding.

As per BCUC letter dated March 16, 2009 the above table disaggregates the energy savings for the Wholesale sector. Since plan figures were developed for each customer class, inclusive of indirect customers, there is no plan figure for the Wholesale sector.

Detail of Energy Savings

The following tables provide details on the DSM energy savings in each sector.

Residential Programs			
	Plan	Actual	% of Plan
	GW.h		Achieved¹
HIP/Watersavers	0.4	0.3	86%
New Home Program	1.3	1.6	120%
Heat Pumps (Air & Ground Source)	4.9	8.4	173%
Residential Lighting	<u>1.8</u>	<u>2.6</u>	<u>143%</u>
	8.4	12.9	154%

¹Differences due to rounding.

The Residential construction and renovation activity was still brisk at 154 percent of plan. In the New Home program, there were 450 participants, a drop from 519 in 2007. The number of Heat Pump program participants grew to a record 1000, compared to 984 in 2007. Most Residential programs met or exceeded plan expectations. The exception, the Home Improvement Program, is expected to pick up steam as a result of the LiveSmartBC collaboration.

General Service Programs			
	Plan	Actual	% of Plan
	GW.h		Achieved¹
Lighting	3.0	6.0	199%
Building and Process Improvement	<u>6.1</u>	<u>5.1</u>	<u>83%</u>
	9.1	11.0	121%

¹Differences due to rounding.

The General Service sector recorded savings of 11.0 GW.h, 121 percent of plan in 2008. The Cool Shops pilot project in Kelowna, which targeted small storefront businesses, attained 150 MW.h of energy savings. Examples of larger Building and Process Improvement projects include: a geexchange system in a Kelowna school (0.8 GW.h), geexchange and variable speed drive irrigation pumps at a Oliver winery (0.6 GW.h), and a more efficient process chosen for the Summerland water treatment plant (0.6 GW.h).

The 2008 Lighting program savings have been reduced to account for free riders, as per the attached Monitoring & Evaluation report in Appendix C.

Industrial Programs			
	Plan	Actual	% of Plan
	GW.h		Achieved¹
Compressed Air	0.7	0.2	30%
Industrial Efficiencies	1.3	3.1	240%
	2.0	3.3	166%

¹Differences due to rounding.

The Industrial Efficiency program achieved savings of 3.3 GW.h, well in excess of the plan of 2.0 GW.h. This was largely attributable to savings of 1.7 GW.h at a lumber mill where a waste wood incinerator was replaced with a chipper, and the secondary products are now shipped as feedstock to a nearby pulp mill.

Wholesale Activity			
	GW.h	MW	Percent¹
Grand Forks	0.2	0.0	3%
Summerland	1.5	0.2	24%
Nelson	0.6	0.1	10%
Penticton	1.5	0.2	24%
Kelowna	2.4	0.4	39%
Total (Wholesale)	6.3	1.0	100%

¹Differences due to rounding.

The total Wholesale energy savings, which were acquired within the service areas of the five municipal electric utilities, were 6.3 GW.h and 1.0 MW. The largest DSM savings results occurred within Kelowna, primarily in commercial and residential lighting, followed by a tie between Summerland, which had its majority of savings from Building and Process Improvements projects, and Penticton, where the largest activity was in the Air Source Heat Pump program.

Program Costs

The table below presents the actual costs incurred compared to plan.

Summary of Costs by Sector

	Plan	Actual	% of Plan ¹
	\$000s		
Residential	1,023	1,236	121%
General service	754	881	117%
Industrial	200	147	73%
Planning & Evaluation	378	419	111%
	2,355	2,683	114%

¹Differences due to rounding.

Costs amounted to \$2,683,000, 114 percent of plan to December 31, 2008, a variance of \$328,000 due to the robust level of activity and the hiring of one additional PowerSense staff member.

Costs per Sector

Residential	Plan	Actual	% of Plan
	\$000s		
H.I.P./Watersavers	135	62	46%
New Home Program	286	340	119%
Heat Pumps (Air & Ground)	446	682	153%
Residential Lighting	156	151	97%
	1,023	1,236	121%

The cost of Residential programs was \$1,236,000 or 121 percent of plan. The largest cost component of Residential programs is the Heat Pumps Program followed by the New Home Program. Incentives paid to Residential participants amounted to \$799,300 during the year or \$165,000 over plan, reflecting higher program participation levels.

General Service	Plan	Actual	% of Plan
	\$000s		
Lighting	257	375	146%
Building and Process Improvement	497	506	102%
	754	881	117%

Costs to December 31, 2008 for General Service amounted to \$880,000 or 117 percent of plan. This reflects the program activity within this sector which also resulted in savings exceeding plan. Incentives paid amounted to \$476,300 and were \$63,000 more than plan.

Industrial	Plan	Actual	% of Plan¹
	\$000s		
Industrial Efficiencies	142	124	88%
Compressed Air	58	22	38%
	200	147	73%

¹Differences due to rounding.

Industrial sector costs were \$147,000 for the period, 74 percent of plan. Incentives paid during the period amounted to \$68,600, which was \$58,000 below plan.

Financial Results

FINANCIAL RESULTS for Year Ending Dec 31, 2008

Financial Results by Program (\$000s)

Program	Program Benefits	Program Costs	Planning & Evaluation Costs	Customer Costs	Total Costs	Benefit Cost Ratio
Residential						
H.I.P./Watersavers	147	62	5	124	191	0.8
New Home program	892	340	25	(45)	320	2.8
Heat Pumps	2,813	682	130	1,271	2,083	1.4
Residential Lighting	<u>763</u>	<u>151</u>	<u>39</u>	<u>(6)</u>	<u>184</u>	<u>4.1</u>
Residential Total	<u>4,615</u>	<u>1,236</u>	<u>199</u>	<u>1,344</u>	<u>2,778</u>	<u>1.7</u>
General Service						
Lighting	1,806	375	92	280	746	2.4
Building and Process Improvement	<u>1,839</u>	<u>475</u>	<u>78</u>	<u>589</u>	<u>1,143</u>	<u>1.6</u>
General Service Total	<u>3,645</u>	<u>881</u>	<u>170</u>	<u>869</u>	<u>1,920</u>	<u>1.9</u>
Industrial						
Industrial Efficiencies	981	124	47	247	418	2.3
Compressed Air	<u>35</u>	<u>22</u>	<u>3</u>	<u>3</u>	<u>28</u>	<u>1.2</u>
Industrial Total	<u>1,016</u>	<u>147</u>	<u>51</u>	<u>249</u>	<u>447</u>	<u>2.3</u>
Total	<u>9,276</u>	<u>2,264</u>	<u>419</u>	<u>2,462</u>	<u>5,145</u>	<u>1.8</u>

Program benefits are the present value of avoided power purchases over the measure lifespan.

An overall Benefit/Cost ratio of 1.8 has been achieved in 2008, compared to 1.9 for 2007.

Residential Results

The Residential sector programs showed good performance with an overall benefit/cost ratio of 1.7 for the sector, a drop from the 1.9 result for the prior year. The programs benefited from the brisk construction pace that occurred in 2008 in the Okanagan service area.

General Service and Industrial Results

The General Service and Industrial financial results for 2007 were also robust, with benefit/cost ratios of 1.9 and 2.3 respectively. Savings potential is identified through key customer contacts, which include a review of their capital expenditure plans. Savings are also derived through various trade ally relationships, including lighting products wholesalers.

Program participation varied within both General Service and Industrial customer classes. The forestry industry continues to face weak markets, with several plant shutdowns, and is motivated to seek operating cost reductions.

Government Programs

The Company is collaborating with the provincial government on various initiatives, notably the LiveSmart BC home retrofit program and the Public Sector Efficiency & Conservation Agreement (“PSECA”) for publicly owned or funded organizations, including schools and hospitals. The programs are expected to increase program activity and results over their multi-year funding envelopes.

DSM Incentive for 2008

The table below presents the estimated DSM incentive results for 2008, based on actual costs and savings for the year.

	TRC Net Benefits <i>(Thousands of Dollars)</i>			Performance	Incentive (\$000s)
	Actual To Dec 31	Base To Dec 31	Eligible for Incentive		
Residential	2,035	1,796	1,853	103%	56
General Service	1,894	2,323	1,783	77%	(36)
Industrial	620	311	467	150%	14
Total	4,550	4,430	4,103		34.0

Actual TRC Net Benefits to December 31, 2008 amounted to \$4.550 million over the Base Net Benefits of \$4.430 million. The Net Benefits for each sector are compared to a 3-year baseline, to determine each sector's incentive amount. Please see Appendix B for a more detailed description of the Incentive Mechanism calculation.

The Residential and Industrial sectors performed well, thus earning incentives of \$56 and \$14 thousand respectively. The General Service performance was impacted by the M&E write-down, resulting in a \$36 thousand penalty for that sector.

The estimated DSM incentive is \$34,000 for the year ended December 31, 2008.

Appendix A DSM Summary Report

FortisBC
Demand-Side Management Summary Report
Year Ending Dec 31, 2008

Sector/Program	Utility Costs			Planning & Evaluation	Research Adm & OH	Total	Customer Incurred Cost	Total Resource Cost	Benefit/Cost Ratios		
	Direct Incentives	Direct Information	Program Labour						Total Resource	Rate Impact	Levelised Cost
	\$000s										
<u>RESIDENTIAL:</u>											
Heat Pumps	405.5	126.8	150.1	77.9	51.9	812.1	1270.6	2,082.8	1.3	0.5	3.0
New Home Program	292.1	21.4	27.0	14.7	9.8	365.0	(45.2)	319.8	2.9	0.5	1.8
Residential Lighting	79.8	30.6	40.5	23.6	15.8	190.2	(5.9)	184.4	3.8	0.8	1.8
Home Improvements Program	<u>22.0</u>	<u>11.4</u>	<u>28.8</u>	<u>3.0</u>	<u>2.0</u>	<u>67.2</u>	<u>124.1</u>	<u>191.3</u>	<u>0.9</u>	<u>0.4</u>	<u>4.7</u>
	<u>799.3</u>	<u>190.2</u>	<u>246.2</u>	<u>119.3</u>	<u>79.5</u>	<u>1,434.6</u>	<u>1343.7</u>	<u>2,778.2</u>	<u>1.7</u>	<u>0.5</u>	<u>2.6</u>
<u>GENERAL SERVICE</u>											
Lighting	218.5	52.4	104.0	55.0	36.7	466.5	279.7	746.2	2.4	0.5	1.7
Building and Process Improvements	<u>226.3</u>	<u>38.9</u>	<u>209.8</u>	<u>44.1</u>	<u>29.4</u>	<u>548.5</u>	<u>589.4</u>	<u>1,137.9</u>	<u>1.4</u>	<u>0.5</u>	<u>4.5</u>
	<u>476.3</u>	<u>91.3</u>	<u>313.7</u>	<u>101.9</u>	<u>67.9</u>	<u>1,051.1</u>	<u>869.1</u>	<u>1,920.3</u>	<u>1.9</u>	<u>0.5</u>	<u>2.0</u>
<u>INDUSTRIAL:</u>											
Industrial Efficiencies	59.1	1.9	63.4	28.4	19.0	171.8	246.6	418.5	3.2	0.6	3.1
Compressors	<u>9.5</u>	<u>0.0</u>	<u>12.7</u>	<u>1.9</u>	<u>1.3</u>	<u>25.4</u>	<u>2.8</u>	<u>28.2</u>	<u>1.2</u>	<u>0.5</u>	<u>2.6</u>
	<u>68.6</u>	<u>1.9</u>	<u>76.1</u>	<u>30.4</u>	<u>20.3</u>	<u>197.2</u>	<u>249.5</u>	<u>446.7</u>	<u>2.3</u>	<u>0.6</u>	<u>1.4</u>
<u>TOTAL:</u>	<u>1,344</u>	<u>283.4</u>	<u>636.0</u>	<u>251.5</u>	<u>167.7</u>	<u>2,683</u>	<u>2462.3</u>	<u>5,145</u>	<u>1.8</u>	<u>0.5</u>	<u>2.2</u>

Levelised Energy Unit Cost - Cents per kWh

2.0

Energy Savings - kWh

27,268,049

Levelised Capacity Unit Cost - Dollars per kW

267.8

Capacity Savings - kW

4,193

Appendix B DSM Incentive Calculation

Total Resource Cost (TRC) Net Benefits are the gross benefits of lifecycle energy and capacity savings less the total resource cost (FortisBC program costs plus customer-incurred costs) for the energy savings measures installed.

The **Base TRC Net Benefits (Base)** are based on a yearly average of actual costs, savings and benefits for the immediately preceding three year period. The costs are escalated to the incentive year dollars and the benefits are priced at the incentive year BC Hydro Rate Schedule 3808.

The **DSM incentive mechanism** measures the variance between the actual TRC Net Benefits (Actual) and the Base TRC Net Benefits (Base) set for each sector for the year. There are different incentive or penalty levels based on the size of the variance for each of the three sectors. Incentives for the sectors are calculated for performances of 100 percent to 150 percent of Base. There is no calculation for performance between 90 percent and 100 percent of Base for all sectors. Calculations for performance of less than 90 percent of Base produce negative results. Maximum penalty is applied to performances of less than 50 percent of Base.

If the sum of the sector incentives or penalties is greater than zero, then that sum is the DSM incentive for FortisBC for the year. If the sum is less than zero, then there is no DSM incentive for FortisBC for the year and no penalty is charged.

The Residential incentive ranges from 3 percent to 6 percent, starting at the achievement of 101 percent of Base, while the penalty ranges from -3 percent to -6 percent. The incentive range for General Service is 2 percent to 4 percent and for Industrial is 1 percent to 3 percent, while the penalty ranges are -2 percent to -4 percent and -1 percent to -3 percent, respectively.

Appendix C Commercial Lighting M&E Report

SAMPSON RESEARCH

Consulting Project

COMMERCIAL LIGHTING PROGRAM EVALUATION

EXECUTIVE SUMMARY

Prepared for:

**PowerSense Dept.
FortisBC Inc.
Kelowna, British Columbia**

By:

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January 12, 2009

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Disclaimer

The opinions expressed in this report are the responsibility of the author, Sampson Research, and do not necessarily represent the views of FortisBC.

Currency Units

All dollar figures presented in this report, unless stated otherwise, are expressed in Canadian funds.

1 EXECUTIVE SUMMARY

1.1 Introduction

This report summarizes the findings from a process and impact evaluation of FortisBC's commercial lighting program; an energy acquisition program that offers financial incentives for retrofitting energy efficient lighting. Since its inception in the early 1990s, the program has recorded 85.3 GWh in energy savings and 15.8 MW in demand savings. Since 2004, the program has recorded energy and demand savings of 20.3 GWh and 4.8 MW respectively.

1.2 Evaluation Objectives & Methodology

The primary objectives of this evaluation were to:

- define and document the program's logic model;
- evaluate the effectiveness and efficiency of program design and delivery; and,
- evaluate program gross savings, net-to-gross factors, and net program savings.

The objectives of the evaluation were met through interviews with program staff and internal stakeholders (n=6), trade allies (n=5), and samples of custom option participants (n=22) and product (bulk purchase) option participants (n=20). Information from these interviews was used to supplement an engineering analysis and review of custom option project files (n=41), and a series of case studies based on statistically adjusted engineering (SAE) billing analyses (n=5).

Interviews took place between October 27th and December 2nd, 2008.

1.3 Summary of Evaluation Findings

1.3.1 Program Delivery

The PowerSense commercial lighting program is well received within the communities served by FortisBC. Comments provided during interviews with customers and external stakeholders were positive and program satisfaction scores were high. Field representatives were praised as friendly and responsive. Trade allies argued the FortisBC incentives often "cinched" the deal with customers to upgrade a standard lighting package to a higher efficiency package. The relative ease of participating in the custom and/or product options, including the lack of cumbersome application and approval procedures, was a positive feature of the lighting program for many customers and trade allies.

Field staff deliver the program with minimal operations support and resources. They manage the approximately 300 projects a year using systems that meet minimum requirements for project management and tracking. The loss of an administrative support person in 2008 hindered the program's ability to keep field staff and internal stakeholders up-to-date on the status of the program. The program has recently hired an operations manager and there is provision for hiring an additional program delivery representative in fiscal year 2009-10.

1.3.2 Eligible Lighting Technologies

Since inception, the program has undergone relatively few changes in product eligibility, program focus, and program resources. There was a general consensus among internal and external stakeholders that the current list of lighting technologies promoted by the program should be reviewed and refreshed. The current complement of qualifying technologies is viewed as a barrier to meeting future program savings targets.

1.3.3 Customer Perspectives

The custom and product (bulk purchase) options cater to participants with differing needs. Custom option participants were more likely to be undertaking a remodelling, expansion, or space build-out at the time of their lighting retrofit than their product option counterparts. As well, product option participants were more likely to say their existing lighting equipment was meeting their needs at the time (Exhibit 1).

**Exhibit 1: Status of Lighting at Time of Retrofit / Lighting Purchase
Product versus Custom Option Participants**

Situation at the time of the lighting purchase	Product (Bulk Purchase) Option Survey	Custom Option Survey
Our business was in the process of a remodel, expansion, or space build-out	10%	45%
Our existing lighting equipment was old or inadequate and needed to be replaced	50%	41%
Our lighting equipment was meeting our lighting requirements	40%	14%
Total	100%	100%

Totals may not sum due to rounding

Participants of the custom option were generally satisfied with their program experience with 77% saying they were either very or somewhat satisfied with the program. They were most satisfied with their communications with FortisBC staff and the least satisfied with the choice of lighting products eligible for a rebate (Exhibit 2).

**Exhibit 2: Satisfaction with Aspects of PowerSense Commercial Lighting Program
Five point satisfaction scale (5 = Very satisfied, 1 = Not at all satisfied)**

Program Aspect:	Least Satisfied (1 or 2)	Most Satisfied (4 or 5)	Average Score (max=5.0)
Application procedures to obtain your rebate	0%	57%	4.3
Communications with FortisBC staff regarding this program	14%	76%	4.1
Information available on energy efficient lighting options	10%	57%	4.0
Information available on the FortisBC PowerSense lighting program	10%	48%	3.8
The amount of the PowerSense rebate	14%	52%	3.7
The choice of lighting products eligible for the PowerSense rebate	14%	38%	3.6

Product option participants were also generally satisfied with their program experience, with 85% saying they were very or somewhat satisfied with the program.

1.3.4 Impact Evaluation

Two evaluations of the PowerSense commercial lighting program have been conducted in the program's history. The most recent evaluation was completed in 1998.

The program has not adjusted its savings estimates for either free riders or program spill-over. An 18% correction factor was applied to Kelowna region projects following the 1998 evaluation. This report recommends the discount be discontinued.

EXECUTIVE SUMMARY

Custom Option

The rigor applied by the program to evaluating and approving custom option lighting projects is determined by the size of the project. For example, projects with rebates in excess of \$5,000 have one-half of the rebate deferred for a year to allow for verification of energy savings. Comprehensive procedures for evaluating and approving projects that were established following the 1998 evaluation are generally followed.

The review of custom option files, however, highlighted a number of issues directly related to the level of scrutiny and oversight applied to small and medium projects, and the inability to adequately monitor, track and verify participant savings. In many cases, these issues can be easily resolved by providing field staff with additional resources, enforcing procedures for project approval, and ensuring comprehensive and accurate capture of customer and project information.

There was no indication of systematic review of billing records before or after a retrofit to confirm savings or follow-ups with customers to assess whether their savings had materialized.

Other findings from the billing and engineering analysis of custom option participants include:

- Confirmed presence of lighting-HVAC interactions. There were notable cases where engineering estimates significantly overstated potential savings because they did not account for HVAC interactions, particularly for buildings with electric heat. Conversely, several customers realized additional energy savings because of reduced air conditioning load during the summer months. At present, the program does not adjust engineering estimates for lighting-HVAC interactions.
- Engineering estimates of hours-of-use, on average, were 7% higher than evaluated, although the majority were within plus or minus 5% of evaluated estimates. Overstatement of operating hours is attributed primarily to missed variations in daily or seasonal operating schedules (e.g., timers, seasonal shut-downs, etc.).
- Measure persistence was high with 95% of the lighting product rebated under the custom option between December 2005 to June 2008 still installed.
- Free riders were estimated at 31% of custom option participants.
- The custom option program induced 9% of participants to purchase and install additional energy efficient lighting (spill-over).

These findings suggest there is a need for PowerSense to review and update its project review and approval criteria and procedures. They should either recommit to savings verification procedures established following the last evaluation or adopt something of comparable rigor.

Product Option

Energy savings claimed under the product (bulk purchase) option of the program have increased significantly since switching to point-of-purchase rebates, and the expansion of this delivery model to other electrical wholesalers. Energy savings through bulk purchases for the first six months of 2008 were up 91% over the same period in 2007.

There is no formal requirement for point-of-purchase rebate recipients to verify they are a FortisBC customer. Wholesalers bear the onus of correctly “pre-qualifying” rebate recipients otherwise they risk not being reimbursed by FortisBC. This is done primarily using the customer’s address or through familiarity with repeat customers. Program staff visually scans wholesaler invoices to confirm or deny claims. Limited or incomplete customer information combined with an increasing volume of claims under this program stream will make it increasingly difficult to enforce the eligibility criterion.

Participants and wholesalers view the point-of-purchase rebates favourably. The evaluation has revealed, however, that a large proportion (59%) of bulk purchasers would have purchased their energy efficient

lighting products without the FortisBC rebate. The cost-effectiveness of this delivery model with the current list of qualifying lighting technologies, particularly CFLs, needs to be reassessed in light of this high free rider percentage.

Other findings from the product (bulk purchase) option impact analysis include:

- Evaluated hours-of-use were 35% higher than program assumptions.
- The majority (91%) of rebated lighting product purchased between December 2007 and June 2008 has been installed. The remainder is being held in storage until the existing lighting product wears out.
- No evidence of spill-over.

Evaluated Savings – Custom Option

Net energy savings from the custom option of the PowerSense commercial lighting program for the January 2005 to June 2007 period are estimated at 4.291 GWh per annum and 1,353.2 kW (Exhibit 3). Adjustments were made for measure persistence loss (5%), spill-over (9%), and free riders (31%). Evaluated savings amount to 72% of the program's original engineering estimates of 5.980 GWh and 1.886 MW.

Exhibit 3: Calculation of Net Program Savings (Run Rates) – Custom Option January 2005 to June 2007

	GWh/yr	kW
Gross Program Savings ¹ (PRGM)	5.980	1,885.8
Measure persistence loss (5%)	(0.299)	(94.3)
Participant Spill-over (9%)	0.538	169.7
Gross Program Savings (EVAL)	6.219	1,961.2
Free Riders (31%)	(1.928)	(608.0)
Net Program Savings (EVAL)	4.291	1,353.2
EVAL / PRGM Ratio	0.72	0.72

¹ Gross program savings represent savings prior to any adjustments for free riders or other discounts.
Totals may not sum due to rounding

Evaluated Savings – Product Option

Savings attributable to bulk purchases made during the December 2007 to June 2008 period are estimated at 2.241 GWh per year and 390.9 kW (Exhibit 4). This is equivalent to 55% and 44% of the program's original energy and demand estimates respectively.

Exhibit 4: Calculation of Net Program Savings (Run Rates) – Product Option December 2007 to June 2008

	GWh/yr	kW
Gross Program Savings (PRGM)	4.048	951.9
Participant Spill-over (0%)	0.000	0.0
Hours-of-use adjustment (35%)	1.417	---
Gross Program Savings (EVAL)	5.465	951.9
Free Riders (59%)	(3.224)	(561.0)
Net Program Savings (EVAL)	2.241	390.9
EVAL / PRGM Ratio	0.55	0.41

Totals may not sum due to rounding

EXECUTIVE SUMMARY

1.4 Program Recommendations

This evaluation has identified opportunities to improve the design and delivery of the PowerSense commercial lighting program, and areas where attention is needed in the monitoring, tracking, and verification of program savings. Recommendations are grouped according to program design, program delivery, qualifying lighting technologies, and lastly, the monitoring, tracking and verification of program savings.

Program Design

1. The objectives of the commercial lighting program need to be reviewed in the context of FortisBC's current strategic DSM plan, and in light of FortisBC's commitment to the Government of British Columbia's 2020 conservation goal.
2. Program objectives should be documented and understood by all program staff and internal stakeholders.

Program Delivery

3. Field representatives and program staff should be provided with an integrated project management system to adequately manage projects, track program savings and performance metrics, and to provide a consistent basis for monthly and quarterly reporting.
4. Administrative resources and operations support assigned to the PowerSense commercial lighting program need to be increased to adequately support program delivery, improve monitoring, the timeliness of reporting, and the rigor of project review and approval procedures.
5. FortisBC should consider using the PowerSense commercial lighting program to assume a stronger leadership role with respect to the adoption of energy efficient lighting technologies. This leadership role should include collateral and materials devoted to educating commercial customers on energy efficient lighting options.

Qualifying Lighting Technologies

6. The list of energy efficient lighting technologies that qualify under the PowerSense program, their incentive levels, and cost-effectiveness should be reviewed in the context of current and projected lighting market trends (baseline), and ability to delivery on program savings targets.
7. All lighting technologies that qualify for an incentive, either under the custom option or the point-of-purchase rebates, should be clearly specified and communicated to internal stakeholders, customers, and trade allies.
8. The PowerSense program should review its policy regarding minimum quality standards for program qualifying technologies, including active consideration of limiting incentives for CFL lamps and fixtures to only those qualified under the Energy Star® program.

Monitoring, Tracking and Verification of Program Savings


9. PowerSense should review and update its project review and approval criteria and procedures. PowerSense should also recommit to savings verification procedures established following the last evaluation or adopt something of comparable rigor. In particular, periodic reviews of lighting plans submitted to FortisBC should be conducted to confirm the reasonableness and accuracy of pre- and post-retrofit fixture wattages, counts, and hours-of-use. Customer follow-ups, as per the general service protocols should be reinstated and enforced with large projects.


10. The program should enforce criteria restricting projects from retrospectively qualifying for program support. Where possible, customers should be required to register with the program prior to commencing their retrofit or lighting upgrade. Participation criteria should be communicated to all trade allies and external stakeholders, and enforced on a consistent basis.
11. The program should confirm that all rebate payment requests bear the signature of the project sponsor (e.g., field representative) and authorizing manager.
12. All projects with annual energy savings estimates above a minimum savings threshold (e.g., 10,000 kWh) should be compared to 12 months worth of pre-retrofit consumption as a check on the reasonableness of the savings estimate.
13. All custom option project records should clearly indicate contact name(s), addresses and telephone numbers for both the retrofit location and for the recipient of the rebate cheque.
14. All custom option project records should clearly indicate the billing account number(s) that correspond to the retrofit site address. All meters impacted by the retrofit should be identified.
15. Further to Recommendations 12 through 14, FortisBC should investigate options to facilitate timely access to billing information for customers serviced by wholesale utilities.
16. Applications to the custom option should include an assessment of the likelihood and magnitude of interactions between lighting and HVAC systems using an industry accepted methodology. A threshold for the minimum acceptable heating penalty should be set by the program (e.g., 10% - 20% of savings during the heating season). If exceeded, engineering estimates of savings should be adjusted accordingly.
17. Electrical wholesalers should be required to improve the comprehensiveness of the information collected on customers receiving the point-of-purchase rebate. At the minimum, it should include first and last names, company name, and telephone number. Some method of confirming the participant's FortisBC account number and premise (street) location is strongly recommended.
18. FortisBC should establish limits for non-compliance (i.e., rebates mistakenly paid to non-FortisBC customers) for the product (bulk purchase) option. Periodic reviews of payment approvals should be conducted to confirm these limits are being upheld.
19. The program should implement program market and impact evaluations at regular intervals (e.g., every three years) and allocate sufficient resources for completing these evaluations (e.g., between 1% and 3% of program budget).
20. Estimates of free riders, persistence, and hours-of-use should be updated as part of regular evaluations.
21. Program savings estimates for product option participants for December 2007 onward should be adjusted to reflect the evaluation findings for operating hours and free riders.
22. Savings estimates for custom option projects should be adjusted to reflect evaluated estimates of persistence, free riders, and spill-over.

* * * * *

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FORTISBC INC.

SEMI-ANNUAL DSM REPORT

SIX MONTHS ENDED JUNE 30, 2009

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Report Objective

This report provides highlights of the Company's Demand Side Management ("DSM") programs for the first six months of 2009 ending June 30, 2009. The presentation format, where applicable, compares actual energy savings and costs to plan, and provides a statement of financial results and an estimate of the DSM incentive amount.

Overview of Results for the Six Months Ended June 30, 2009

Energy efficiency savings for the six months ended June 30, 2009 were 15.3 GW.h, 121 percent of the plan of 12.7 GW.h for the same period. Company costs incurred were \$1,756,000 or 96 percent of the plan \$1,832,000 for the same period. Adding the customers' costs yields a Total Resource Cost ("TRC") of \$2,992,000 for an overall TRC Benefit/Cost ratio of 1.9.

Energy Savings per Sector

Sector	YTD Plan GW.h	Actual	% of Plan Achieved
Residential	5.4	6.1	114%
General Service	5.8	7.8	135%
Industrial	1.5	1.3	88%
Total savings (GW.h)¹	12.7	15.3	121%

¹Differences due to rounding

For the first six months of 2009, the Residential and General Service results are both above plan at 114 percent and 135 percent respectively, with Industrial savings at 88 percent of plan.

Detail of Energy Savings

The following tables provide details on the DSM energy savings in each sector, including wholesale DSM activities.

Residential Programs	YTD Plan GW.h	Actual	% of Plan Achieved
Home Improvement	0.5	0.3	65%
New Home	0.6	0.9	147%
Heat Pumps (Air & Ground Source)	2.8	3.4	119%
Residential Lighting	1.4	1.5	107%
Total savings (GW.h)¹	5.4	6.1	114%

¹Differences due to rounding

The residential construction and renovation activity results were at 114 percent of plan. In the New Home program, there were 224 projects recorded. The number of Heat Pump program participants fell to 349, of which 307 were Air Source and 42 Ground Source, compared to 429 for both by June 30, 2008. Most Residential programs met or exceeded plan expectations, with the exception of the Home Improvement program (“HIP”). The LiveSmart collaboration resulted in 0.35 GWh of energy savings year to date, which are recorded in the Air Source Heat Pump and HIP programs.

General Service Programs	YTD Plan GW.h	Actual	% of Plan Achieved
Lighting	2.8	4.1	148%
Building and Process Improvement	3.0	3.8	123%
Total savings (GW.h)¹	5.8	7.8	135%

¹Differences due to rounding

The General Service sector recorded savings of 7.8 GW.h, or 135 percent of the plan. Examples of Building and Process Improvement projects include: the Mission Aquatic Centre (0.6 GW.h), the Fipke Science Building at UBCO (1.5 GW.h), and energy efficient lighting in the Summerland Seniors Village (0.3 GW.h).

The 2009 lighting program savings have been reduced to account for free-riders, as per the Monitoring and Evaluation report previously filed with the December 31, 2008 Semi-Annual

report. A modified product incentive offer will go out in the fall, which will reduce free ridership significantly.

Industrial Programs	YTD Plan GW.h	Actual	% of Plan Achieved
Compressed Air	0.4	0.4	98%
Industrial Efficiencies	1.1	0.9	84%
Total savings (GW.h)¹	1.5	1.3	88%

¹Differences due to rounding

The Industrial Efficiency program achieved savings of 1.3 GW.h, below the plan of 1.5 GW.h. The savings were recorded for compressor projects in the Okanagan, and various sawmill projects in the Kootenays, including 0.5 GWh for a new planer line.

Wholesale Activity	GW.h	MW	Percent
Grand Forks	0.02	0.003	0.5%
Summerland	0.5	0.1	11%
Nelson	0.3	0.1	7%
Penticton	0.8	0.1	17%
Kelowna	3.0	0.5	65%
Total savings (Wholesale)¹	4.6	0.8	100%

¹Differences due to rounding

The Wholesale energy savings, which were acquired within the service areas of the five municipal electric utilities, were 4.6 GW.h and 0.8 MW year to date. The largest DSM savings results occurred within Kelowna and were primarily the result of commercial lighting and new BIP projects, followed by Penticton where the largest activity was in the Air Source Heat Pump program. Three modest projects were undertaken in the Grand Forks area resulting in the savings shown in the above table.

Program Costs

The table below presents the June 30, 2009 year to date costs incurred as compared to plan.

Summary of Costs by Sector

Sector	YTD Plan \$000s	Actual	% of Plan Achieved
Residential	696	832	120%
General service	642	518	81%
Industrial	173	108	62%
Conservation Culture	71	59	84%
Planning & Evaluation	252	239	95%
Totals costs ¹	1,832	1,756	96%

¹Differences due to rounding

Costs amounted to \$1,756,000 or 96 percent of the YTD plan to June 30t, 2009, a positive variance of \$76,000.

Costs per Sector

Residential	YTD Plan \$000s	Actual	% of Plan Achieved
Home Improvement	136	73	54%
New Home	171	265	156%
Heat Pumps (Air & Ground)	258	366	142%
Residential Lighting	131	128	97%
Totals costs ¹	696	832	120%

¹Differences due to rounding

The utility cost of Residential programs was \$832,000 or 120 percent of plan. The largest cost component of Residential programs is the Heat Pumps Program followed by the New Home Program. Incentives paid to Residential participants amounted to \$495,700 to June 30, 2009 as compared to the plan of \$434,500, resulting in a variance of \$61,200 due to carryover projects from 2008.

General Service	YTD Plan	Actual	% of Plan
	\$000s		Achieved
Lighting	307	229	75%
Building and Process Improvement	280	290	104%
Totals costs ¹	586	518	88%

¹Differences due to rounding

Costs to June 30, 2009 for General Service amounted to \$518,000 or 88 percent of plan.

Incentives paid for the period amounted to \$318,900 and were \$50,800 under plan.

Industrial	YTD Plan	Actual	% of Plan
	\$000s		Achieved
Industrial Efficiencies	137	78	57%
Compressed Air	36	30	85%
Totals costs ¹	173	108	62%

¹Differences due to rounding

Industrial sector costs were \$108,000 for the period, 62 percent of plan. Incentives paid during the period amounted to \$50,400, which was \$67,800 below plan.

Financial Results

Financial Results for Six Months Ending June 30, 2009

Financial Results by Program

Program	Program Benefits	Program Costs	Planning & Evaluation Costs (\$000s)	Customer Costs	Total Costs	Benefit Cost Ratio
Residential						
Home Improvement	155	73	5	78	156	1.0
New Home	519	265	14	(37)	242	2.1
Heat Pumps	1,214	366	53	425	844	1.4
Residential Lighting	433	128	24	(0)	151	2.9
Residential Total	2,321	832	96	465	1,393	1.7
General Service						
Lighting	1,398	229	64	143	436	3.2
Building and Process Improvement	1,442	290	59	467	815	1.8
General Service Total	2,840	518	123	610	1,251	2.3
Industrial						
Industrial Efficiencies	324	78	14	132	224	1.4
Compressed Air	68	30	6	28	65	1.1
Industrial Total	392	108	21	161	289	1.4
Conservation Culture	-	59	-	-	59	-
Total¹	5,553	1,517	239	1,236	2,992	1.9

¹Differences due to rounding

Program benefits are the present value of avoided power purchases, based on BC Hydro Rate 3808, over the measure lifespan. An overall Benefit/Cost ratio of 1.9 has been achieved year to date in 2009.

Residential Results

The residential sector programs showed good performance with an overall benefit/cost ratio of 1.7 for the sector, up from the 1.6 result in the prior year.

General Service and Industrial Results

The General Service financial result for 2009 quite robust with a benefit/cost ratio of 2.3 down slightly from the 2.4 figure for the same period in 2008. The Industrial sector result dropped considerably to 1.4, compared to 3.0 a year ago, despite a similar volume of savings.

Government Programs

The Company is collaborating with the provincial government on various initiatives, notably the LiveSmart BC home retrofit program and PSECA (Public Sector Efficiency & Conservation Agreement) for publicly owned or funded organizations (e.g. schools & hospitals). In August 2009 the provincial government closed the LiveSmart BC program to new entrants, however there is an existing base of customers with completed audits who are still eligible for the provincial incentives.

DSM Incentive for 2009

The table below presents the estimated DSM incentive for 2009, based on mid-year costs and savings.

	TRC Net Benefits (\$000s)			Performance	Incentive (\$000s)
	Actual To Jun 30	Base To Jun 30	Eligible for Incentive		
Residential	1,024	1,152	941	82%	(28)
General Service	1,712	1,170	1,712	146%	68
Industrial	124	236	124	52%	(2)
Total	2,859	2,557	2,777		38

Actual TRC Net Benefits to June 30, 2009 amounted to \$2.86 million over the Base Net Benefits of \$2.56 million. The Net Benefits for each sector are compared to a 3-year baseline, to determine each sector's incentive amount. Please see Appendix B for a more detailed description of the Incentive Mechanism calculation.

The General Service sector performed well, earning an incentive of \$68 thousand, whereas the Residential and Industrial sectors are both in the negative realm.

The estimated DSM incentive is \$38,000 thus far, subject to the results in the second half of the calendar year.

Appendix A DSM Summary Report

FortisBC
Demand-Side Management Summary Report in BCUC Format
Year to Date ending June 30, 2009

Sector/Program	Utility Costs			Planning & Evaluation	Research Adm & OH	Total	Prov. Govt. Funding	Customer Incurred Cost	Total Resource Cost	Benefit/Cost Ratios		
	Direct Incentives	Direct Information	Program Labour							Total Resource	Rate Impact	Levelised Cost
	\$000s											
<u>RESIDENTIAL:</u>												
Heat Pumps	206.2	56.7	102.9	31.7	21.1	418.5	0.0	425.1	843.7	1.4	0.4	2.8
New Home	217.7	22.8	25.0	8.4	5.6	279.5	0.0	-37.5	242.1	2.1	0.6	2.4
Residential Lighting	49.3	36.1	42.2	14.2	9.5	151.3	0.0	0.0	151.3	2.9	0.8	2.5
Home Improvements Program	22.6	37.8	12.8	3.1	2.1	78.4	0.0	77.6	156.0	1.0	0.6	4.8
Residential sub-total	495.7	153.4	182.9	57.4	38.3	927.7	0.0	465.2	1,393.0	1.7	0.6	2.8
<u>GENERAL SERVICE</u>												
Lighting	133.5	36.6	58.5	38.3	25.6	292.6	0.0	143.3	435.9	3.2	0.5	1.4
Building and Process Improvements	185.4	38.9	65.3	35.3	23.5	348.3	0.0	466.9	815.2	1.8	0.5	2.2
General Service sub-total	318.9	75.5	123.8	73.6	49.1	640.9	0.0	610.2	1,251.1	2.3	0.5	1.9
<u>INDUSTRIAL:</u>												
Industrial Efficiencies	32.1	3.4	42.1	8.6	5.7	92.0	0.0	132.3	224.3	1.4	0.6	2.3
Compressors	18.3	1.1	10.6	3.7	2.5	36.2	0.0	28.5	64.7	1.1	0.6	3.1
Industrial sub-total	50.4	4.5	52.7	12.3	8.2	128.2	0.0	160.8	289.0	1.4	0.7	2.6
Conservation Culture	0.0	59.0	0.0	0.0	0.0	59.0		0.0	59.0			
<u>TOTAL</u>	865.0	292.4	359.4	143.4	95.6	1,755.8	0	1,236.3	2,992.0	1.9	0.6	2.3
Levelised Energy Unit Cost - Cents per kWh			2.3			Energy Savings			15,255,449 kWh			
Levelised Capacity Unit Cost - Dollars per kW			160.1			Capacity Savings			2,454 kW			

Inkaneep Point Resort

16235 – 87th Street, Osoyoos, B.C. V0H 1V2
Telephone: (250) 495-6353

AGENDA

Meeting Attendees

Attending:

Sarah Kahn, Public Interest Advocacy Centre	Keith Veerman, FortisBC
Richard Tarnoff, NRI, Hedley Improvement District	Mark Warren, FortisBC
Buryl Goodman, South Okanagan	Nancy Macleod, FortisBC, Corporate Communications
Al Wait, Boundary	Jodie Foster Sexsmith, FortisBC, Corporate Communications
Andrew Pape-Salmon, Ministry of Energy, Mines, and Petroleum Resources	Jill Neumann, Willis Energy Services
	Penny Cochrane, Willis Energy Services

Guest:

David Mayes, Guest, Okanagan Environmental Industry Association

Invited:

Eileen Cheng, BC Utilities Commission
Robert Macrae, Selkirk College, West Kootenay

8:00 am BREAKFAST served in meeting room

- | | | | |
|----|------|---|----------------|
| 1. | 8:45 | Welcome, Introductions, and Agenda Review | MW |
| 2. | 8:50 | PowerSense Update
June 30 Results
Program Activity
2009-2010 Capital Plan | KV
KV
MW |
| 3. | 9:30 | Conservation Culture | JFS, NM |

10:20 Break

- | | | |
|----|-------|------------------------------------|
| 4. | 10:20 | Conservation Culture cont'd |
|----|-------|------------------------------------|

12:00 pm Lunch Served

- | | | | |
|----|-------|--|--------------------------------|
| 5. | 12:30 | Energy Plan Update
2008 Energy Plan Programs and Activity
Outlook for 2009 | |
| 6. | 13:15 | DSM Strategy Development | KV/PC |
| 7. | 13:25 | Energy Policy and Setting Targets
Establishing savings target
Treatment of costs and savings attributable to Codes and Standards | KV
Roundtable
Roundtable |
| 8. | 13:40 | DSM Strategy Options
Market Transformation
Integrated DSM
Sustainability Management
Criteria for Evaluation of Strategy Options | KV/PC

Roundtable |
| 9. | 14:00 | PowerSense Post 2010
BCs DSM Backdrop
DSM Supply Chain | KV/PC |

AGENDA

Inkaneep Point Resort
16235 – 87th Street, Osoyoos, B.C. V0H 1V2
Telephone: (250) 495-6353

Quality Assurance

	14:45	Break	
9a.	15:00	PowerSense Post 2010 Renewable Power and Alternative Energy Systems Benefits of DSM Post 2010	KV/PC Roundtable Roundtable
10.	15:30	Next steps DSM Strategy Development Draft Advisory Committee Terms of Reference Update	KV
11.	16:00	Wrap up	KV/MW

Draft Meeting Notes

Wednesday, May 20th, 2009

8:45 a.m. to 1:00 p.m.

FortisBC1290 Esplanade,
Trail, BC**Meeting Attendees***Attending:*

Sarah Kahn, Public Interest Advocacy Centre
 Richard Tarnoff, NRI, Hedley Improvement District
 Buryl Goodman, South Okanagan
 Al Wait, Boundary
 David Mayes, Okanagan Environmental Industry Association
 Katherine Muncaster, Ministry of Energy, Mines, and Petroleum Resources (MEMPR)

Keith Veerman, PowerSense, FortisBC
 Carol Suhan, PowerSense, FortisBC
 Marnie Douglas, Corporate Communications, FortisBC
 Corey Sinclair, Regulatory Affairs, FortisBC - COSA
 Dennis Swanson, Regulatory Affairs, FortisBC - COSA
 Gail Tilbault, EES Consulting - COSA
 Joyce Martin, Regulatory Affairs, FortisBC – Resource Plan
 Penny Cochrane, Willis Energy Services - Recorder

Invited:

Doug Chong, BC Utilities Commission
 Eileen Cheng, BC Utilities Commission
 Robert Macrae, Selkirk College, West Kootenay

PowerSense 2008 Year-end – Keith Veerman

- The PowerSense management team has been established: Carol Suhan is managing PowerSense operations, marketing, and outreach initiatives. Keith Veerman remains responsible for DSM planning, measurement, verification, evaluation, and stakeholder groups.
- Tables for the **2008 year-end draft results** were handed out and show that PowerSense achieved 27.3 GWh of savings, which is 140% above the year's target of 19.5 GWh. Expenditures were also up at 114%, or \$2.683m of the \$2.355m target;
- PowerSense total resource benefit/cost ratio for 2008 is 1.8, down from 2007 as unit costs for programs are increasing.
- This may herald a ongoing decline in benefit/cost ratio for the PowerSense program portfolio, due to pilot projects and delivery collaboration with other agencies. Pilot projects, such as Cool Shops, inherently have lower margins
- With collaborative initiatives, such as with SolarBC and Natural Resources Canada (NRCan), new savings acquisition programs incur higher unit costs (cost per kWh).
- The Home Improvement Program experienced a slow down in activity, resulting in a higher than forecast fixed cost portion of total expenditures. The LiveSmart BC activity and savings are still to be reported, once they are received from the MEMPR.
- The final 2008 year-end written report is being prepared and will be sent to committee members when it is submitted to the BCUC.
- Delay of the year-end report has been due to the March 16, 2009 letter from the BCUC requesting that PowerSense savings and expenditures for FortisBC wholesale customers (Kelowna, Summerland, Penticton, Grand Forks, and City of Nelson) be broken out. The total annual energy savings for the wholesale customers was 6.3 GWh, or 23% of total energy savings.

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Wednesday, May 20, 2009

- Wholesale customers are resellers of electricity to their end-use customers, known as FortisBC's "indirect" customers. PowerSense delivers its programs to indirect customers. To be clear, the wholesale customers do not deliver the PowerSense programs on FortisBC's behalf.
- Fyi: all PowerSense program participant information is recorded in the EM database by individual customer transaction or by groups of sales transactions for product rebates.

PowerSense 2009 Update – Keith Veerman

- Energy savings to the end of April 2009 are at 38 percent of the annual target of 25.3 GWh. Residential and general service sectors, are reporting 40 percent of annual savings YTD, while the industrial sector is at 26 percent of the annual target.
- The result of the Cool Shops¹ pilot project in the summer of 2008 is an in-house PowerSense small business program to be launched in September 2009.
- PowerSense loans for customers to purchase and install heat pumps are now available only to electric-heat customers. The provincial LiveSmart program has taken over from PowerSense previous approach which made loans available to any customers, regardless of the installed heating fuel.
- Overall, fewer loan applications are being received. This may speak to the total (governments' and utilities') incentive packages now available for each heat pump installation.
- PowerSense co-promotes LiveSmart and the PowerSense Residential Representatives direct customers to the program, reducing the program administrative workload for the representatives.
- Residential representatives are able to take on small business initiatives, in turn providing key account managers with more time to meet with General Service customers.

PowerSense 2009 Marketing Plan – Carol Suhan

- FortisBC is creating and producing many new PowerSense marketing materials, such as brochures, displays, presentations, website, program participation documents, and scripts and layouts for advertising.
- Another person will be hired for 20 hours per week to assist the existing 0.5 FTE in Corporate Communications staff member, who does PowerSense promotions and initiatives.

PowerSense 2009 Marketing Promotions and Initiatives

- PowerSense is being rebranded with a fresh and modern approach.
- New logo has been launched. All materials will be ready for fall PowerSense Month.
- PowerSense Month in conjunction with LiveSmartBC Month in October
- New PowerSense is partnering more with communities and other organizations.
- 20th Anniversary events are planned for throughout the year
- Prior to Christmas there will be a media campaign to inform customers about standby power and electronic devices, including televisions, TVO's digital television box converters, and cable boxes, and to promote Energy Star.
- Laundry Promotion
 - Promote outdoor clotheslines as an alternative to using a clothes dryer.
 - Promotion will be launched in Kelowna and Castlegar in June; city hall buildings may be wrapped in clothes lines. 5000 clotheslines will be given away in this pilot.

¹ TM of the Clean Air Foundation

Wednesday, May 20, 2009

- Product packages, comprising retractable clothesline, clothes pins, and for some, cold water detergent, will be handed out.
- Ontario Power Authority is recording 230 kWh of annual energy savings per household for their clothesline program. PowerSense will record the same rate of savings.
- Measure name may be “solar drying”.
- Local media and City Councils are on board for this campaign.
- Names of recipients of the laundry package will be recorded for follow up survey, along with a control group to be set up.
- If strata covenants that disallow clotheslines become a major barrier, FortisBC will approach the BC government to request a statute change. E.g. Ontario has made the necessary changes to allow clotheslines in multi-unit residential buildings and complexes.

Social Marketing

- Building public awareness is focused on building program participation.
- Social marketing is an approach to stimulating social change by applying marketing techniques and practices. Social marketing identifies the barriers to and benefits from social change, along with the activities/behaviours associated with changed behaviour. Activities and programs model the desired behaviour and create opportunities for participants to practice and commit to changing. The social marketing process provides prompts to remind participants of their commitment, includes extrinsic measurements of progress, and communicates to non-participants through media and personally to participants. It relies on personalized contact, personal commitments, and public disclosure with tools such as testimonials.

Education

- Currently PowerSense is offering the Destination Conservation program for K to 12 schools.
- PowerSense sponsored the Environmental Mind Grind competition held in April.
- A Grade 11 energy module curriculum was co-funded by FortisBC, and will be offered beginning in Fall '09
- Post-secondary program/curricula are being prepared for UBCO and Okanagan College.

Low-income pilot project

- A major challenge is to find other financial sources to fund the 80+ percent of total cost which remains after the PowerSense incentive. There are several models in the United States, such as the national Weatherization Assistance Program, which involve funding from all levels of government and utilities are the delivery agents.
- The “Warm Up Winnipeg” program also features training for underemployed people so that they become the installers of energy efficiency measures in eligible households.
- The Co-Branding Pilot project, with BCHydro, will deliver DSM product packages to disadvantaged households serviced by the Okanagan Metis and Aboriginal Housing Society and the Ktunaxa Indian Band in Creston . The first delivery is planned for the end of May.
- After rebating a recent Kelowna street housing project, the John Howard Society has approached PowerSense about other opportunities to deliver a LI program for 2010/11.

Wednesday, May 20, 2009

- The provincial low-income program (LEAP) is operated for MEMPR by EAGA Canada, which in turn is subcontracting to local contractors to deliver the program to households. Local contractors are paid \$1,700, including GST, per household. The installations mostly receive attic insulation, ventilation fans (Panasonic Whisper Green®), and low-flow showerheads. – David Mayes

Small Business Program

- Cool Shops pilot project has resulted in the development of the small business program.
- Residential reps are being trained over the summer to perform the duties associated with the small business program.
- Program delivery launch is September.

Energy Star appliances and electronics

- An incentive of \$150 will be available to New Home program customers who purchase and install a package of Energy Star appliances,
- In the Christmas sales run-up period a sales incentive will be offered to salespeople who sell EnergyStar Tier 2 televisions, which are 15% more efficient.

Conservation Culture

- “Walking the Talk” – The Company facilities and operations are being audited to identify measures to improve efficiency and reduce greenhouse gas emissions.
- As well, employees attended “Lunch and Learn” sessions during April.
- Employees are being encouraged to participate in the provincial LiveSmart program, and the first 50 employees will have their LiveSmart audit fee reimbursed by the Company.
- An employee committee will be set up to gather workplace conservation and efficiency improvement ideas. The committee will also be leading implementation activities.
- Earth Hour was promoted through the media and FortisBC experienced a 8.9 MW or 2.2% percent reduction on its system peak
- Conservation Culture message is being integrated as a component of community events throughout the service regions, such as the Meadowlark Festival in Penticton.

Regulatory

- The definition, application, and impact of the adequacy section of the DSM Regulations have not yet been determined by PowerSense.
- The DSM Regulations are attached to these notes for information purposes.

Cost of Service Analysis – Corey Sinclair, Dennis Swanson, Gail Tilbault, EES Consulting

Resource Plan – Joyce Martin, FortisBC

Conservation Rates – Discussion – Keith Veerman

- The members of the DSM Advisory Committee are encouraged to provide their input on conservation rate design as FortisBC prepares the rate design application to be submitted to the BCUC by September 30, 2009.
- The BC Energy Plan call for conservation rates is predicated on the provincial shortage of energy, whereas FortisBC is primarily capacity constrained
- Rates designed to encourage customers to reduce energy consumption include:
 - time-of-use, based on seasonal, monthly, day of the week, or daily energy cost differentials,
 - real-time pricing,
 - inclined block (which BCHydro has implemented for their residential customers)
- The Committee requested more specific information about the performance of existing rate designs that were put in place to promote energy conservation.
- PowerSense will prepare an information package for the Committee members, to be forwarded in sufficient to hold a Committee conference call prior to the rate design consultation sessions slated for July.

Municipal and Regional District		
Mayor Lawrence Chernoff and Council City of Castlegar	Mayor Ron Toyota and Council Town of Creston	Mayor Libby Nelson and Council Village of Fruitvale
Mayor Brian Taylor and Council City of Grand Forks	Mayor Colleen Lang and Council City of Greenwood	Mayor Greg Lay and Council Village of Kaslo
Mayor Sharon Shepherd and Council City of Kelowna	Mayor Walter Despot and Council Village of Keremeos	Mayor James Baker and Council District of Lake Country
Dennis Bontron and Council District of Lillooet	Mayor Randy Kappes and Council Village of Midway	Mayor Griff Welsh and Council Village of Montrose
Mayor John Dooley and Council City of Nelson	Mayor Pat Hampson and Council Town of Oliver	Mayor Stu Wells and Council Town of Osoyoos
Mayor Dan Ashton and Council City of Penticton	Mayor Randy McLean and Council Town of Princeton	Mayor Greg Granstrom and Council City of Rossland
Mayor Ann Henderson and Council Village of Salmo	Mayor Madeleine Perriere and Council Village of Slocan	Mayor Janice Perrino and Council District of Summerland
Mayor Dieter Bogs and Council City of Trail	Mayor Jim Nelson and Council Village of Warfield	Chair Gary Wright and Board Regional District of Central Kootenay
Chair Robert Hobson and Board Regional District of Central Okanagan	Chair Marguerite Rotvold and Board Regional District of Kootenay-Boundary	Chair Dan Ashton and Board Regional District of Okanagan-Similkameen
Indian Band and First Nation		
Chief Johnathan Kruger and Council Penticton Indian Band	Chief Fabian Alexis and Council Okanagan Indian Band	Grand Chief Stewart Philip Okanagan Nation Alliance
Chief Clarence Louie and Council Osoyoos Indian Band	Chief Chris Luke Sr and Council Lower Kootenay Indian Band	Chief Richard Holmes and Council Upper Similkameen Indian Band
Chief Joseph Dennis and Council Lower Similkameen Indian Band	Chair Kathrine Teneese Ktunaxa Nation	Chief Robert Louie Westbank First Nation
Chief Timothy Manuel and Council Upper Nicola Indian Band	Chief Donald Moses and Council Lower Nicola Indian Band	

Municipal and Regional District invitation

June 02, 2009

Dear **

I would like to update you on the status of FortisBC's resource planning initiative. Since our public consultation in early 2008, FortisBC has completed drafting its 20-year resource plan. Increased self-sufficiency, expanded conservation programs and a diversified generation portfolio primarily focused on clean, renewable resources are the cornerstones of FortisBC's 2009 Resource Plan.

The 2009 Resource Plan was filed with the BC Utilities Commission last week and deals with FortisBC's long term generation needs and differs from FortisBC's System Development Plan which deals directly with power lines and substations. This plan examines the capacity of our existing sources of power generation and proposes solutions to supply our existing and forecast customer load requirements. It provides new information and analyses on FortisBC's current and forecasted energy requirements, current resource adequacy and develops the strategy to close forecasted gaps.

The British Columbia Utilities Commission will establish a schedule for the regulatory process to review the 2009 Resource Plan in accordance with the regulator's resource planning guidelines. The full plan including appendices is available on FortisBC's web site at www.fortisbc.com as well as BCUC's website at www.bcuc.com.

In the process of developing the 2009 Resource Plan, FortisBC met with representatives from more than 15 communities and gathered input from over 1200 customers through workshops, focus groups and public opinion surveys. This input helped us better understand public attitudes and preferences about future resource options. Our preferred solution proposed in the 2009 Resource Plan reflects this input.

Public open houses are planned over the next few months as the next step in the Company's consultation process. These open houses will outline FortisBC's findings to date and solicit public and First Nations feedback on the Resource Plan.

The project team would also be pleased to provide an update to Town of Creston Council at a future council meeting at your convenience. To make arrangements for a presentation, please contact me at (250) 469-8007 or email jodie.fostersexsmith@fortisbc.com.

We look forward to hearing from you about this and any other interests you may have with respect to FortisBC activities. If you have specific questions about the 2009 Resource Plan, you can also contact the Project Manager, Ian Dyck directly at (250) 368-0345 or via email at ian.dyck@fortisbc.com

Sincerely,

Jodie Foster Sexsmith
Communications and Media Relations Advisor

Indian Band and First Nation invitation

June 9, 2009

Dear **

I would like to update you on the status of FortisBC's resource planning initiative. Since our discussion on the initial stages in early 2008, FortisBC has completed drafting its 20-year resource plan. Increased self-sufficiency, expanded conservation programs and a diversified generation portfolio primarily focused on clean, renewable resources are the cornerstones of FortisBC's 2009 Resource Plan.

The 2009 Resource Plan was filed with the BC Utilities Commission on May 29, 2009 and deals with FortisBC's long term generation needs and differs from FortisBC's System Development Plan which deals directly with power lines and substations. This plan examines the capacity of our existing sources of power generation and proposes solutions to supply our existing and forecast customer load requirements. It provides new information and analyses on FortisBC's current and forecasted energy requirements, current resource adequacy and develops the strategy to close forecasted gaps.

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In the process of developing the 2009 Resource Plan, FortisBC met with representatives from First Nations and local governments in more than 15 communities, and gathered input from over 1200 customers through workshops, focus groups and public opinion surveys. This input helped us better understand public attitudes and preferences about future resource options. Our preferred solution proposed in the 2009 Resource Plan reflects this input.

Public open houses are planned over the next few months as the next step in the Company's consultation process. These open houses will outline FortisBC's findings to date and solicit public and First Nations feedback on the Resource Plan.

The project team would also be pleased to provide an update to you and your council at a future council meeting at your convenience. To make arrangements for a presentation, please phone me at 250-490-5141 or email me at bob.gibney@fortisbc.com.

We look forward to hearing from you about this and any other interests you may have with respect to FortisBC activities. If you have specific questions about the 2009 Resource Plan, you can also contact the Project Manager, Ian Dyck directly at (250) 368-0345 or via email at ian.dyck@fortisbc.com

Sincerely,

Bob Gibney
First Nations Executive Liaison

cc: Ian Dyck, Project Manager, 2009 Resource Plan

Schedule of Resource Plan Presentations

	Organization	Date (2009)	Time	
1	Town of Creston	Tuesday, September 1	4:00 pm	
2	Village of Warfield	Wednesday, September 2	7:00 pm	
3	Town of Osoyoos	Tuesday, September 8	9:30 am	
4	City of Penticton	Tuesday, September 8	6:00 pm	
5	Regional District of Central Okanagan	Thursday, September 10	9:00 am	
6	District of Summerland	Monday, September 14	8:30 am	
7	City of Kelowna	Monday, September 14	1:30 pm	
8	Grand Forks	Monday, September 21	7:00 pm	
8	Regional District of Kootenay Boundary	Thursday, September 24	6:30 pm	
10	Village of Keremeos	Monday, October 5	7:00 pm	
11	Village of Fruitvale	Tuesday, October 13	6:30 pm	
12	Regional District of Okanagan Similkameen	Thursday, October 22	12:30 pm	
13	City of Trail	Monday, October 26	7:00 pm	
14	Regional District of Central Kootenay	Thursday, November 5	9:00 am	
15	Village of Slocan	Wednesday, November 18	7:00 pm	

Questions and Comments from Resource Plan Presentations

Village of Warfield

- *Please explain pump storage Hydro*
- Why is Nuclear not an option?
- Have you looked into any other options like steam?

Council thanked us and told us that they found the executive summary interesting and informative. They did say it contained a lot of useful information.

Town of Creston

- Regarding the costs to run the simple cycle gas turbine, how did FortisBC calculate gas costs over time?
- Explain the Teck purchase agreement. – (This was a more a question of not understanding that TECK is the new name for TECK COMINCO)
- Is there any hope for new dams in the area?
- Are you considering conservation based rates? This seems to be the best way to get customers to conserve.

Town of Osoyoos

- Reviewed and explained the concept behind pumped storage hydro.
- Are we anticipating an expansion of TOU DSM rates? This would be a good option to consider for energy conservation.
- Gas turbines are not a good idea
- Burrard Thermal should not be operated.
- Pumped storage hydro is the way to go.
- Do we have TOU rates for residential?

City of Penticton

- What is 45 MW equal to? Is it the same as one dam?
- Can we expect significant cost increases for infrastructure?
- Will we be faced with new transmission line running up and down the valley?
- Nuclear generation is out of the question.
- Are we able to excess wind generation units for sale in the eastern states?
- Are photo voltaic roof top units acceptable as a source of generation?
- Will we pay a premium for customers that want to install photo voltaic units?
- Do we have net metering in place?
- What is our contribution for net metering?
- Do we have any conservation programs in place?

- Do we have TOU rates?
- Do we have or will we consider tiered rates?
- What assurance do we have that power purchased from the grid is “clean”?
- The City of Penticton has a water stream that is so powerful pressure reduction devices have to be employed. Can this stream work as a generation source?
- Pumped storage hydro was explained.

Regional District of Central Okanagan

- SCGT what is it?
- Does the turbine sound like a jet engine?
- Regarding renewable resources what are our immediate plans, what are we doing today?
- Are in service dates of 2016 realistic?
- Are we considering coal?
- Are we considering thermal?
- What is the downside of purchasing the power we need?
- Is not collaborative purchasing the better way to go?
- Why is there no notification of tree cutting?
- FortisBC has a lack of enthusiasm for alternate energy (eg solar).
- What have we done for residential customers who want to produce power to supply into the grid?
- Why are we so late in planning for resources?
- FortisBC’s tree cutting program is supported by the CORD.
- What is pumped storage hydro?
- Why is a CPCN necessary for pumped storage hydro?
- Can we not incorporate pumped storage hydro into the existing dams in the Kootenays?

District of Summerland

- Did FortisBC consider local areas for the Pumped Storage Hydro facilities?
- Did we consider local areas for potential hydro projects?
- What is the 2.3% BC Hydro increase for?
- What percentage of FortisBC power purchases are from coal generation?
- How much power does FortisBC buy from Alberta?
- How much coal generation is there in BC?
- The amount of coal generation that forms part of our purchases is an important piece of information.
- What is the biggest variable regarding demand growth?
- What is driving the gap in demand, actual demand or contract demand?
- If we are basing our growth on actual demand that is in direct contrast to our statements in our COSA application.
- Is FortisBC considering a multi tiered rate system?
- FortisBC should do a press release advertising the fact that we now have net metering available.

City of Kelowna

- Discussed the access to FortisBC's recent Net Metering program and the pending press release.
- Councilor Stack was encouraged by FortisBC's decision to support the hybrid option.
- What is the population growth % FortisBC used as part of our load forecasts?
- Where would FortisBC locate the SCGT?
- Is it close to a populated area?
- Has FortisBC picked a location?
- Is Kelowna considered the North Okanagan as per FortisBC's report?
- The problems with placing a gas turbine near Kelowna are insurmountable.
- Suggesting a gas turbine is very poor planning.
- Why is FortisBC finally realizing that it is resource constrained?
- Does FortisBC's plan match the City of Kelowna Official Community Plan going into 2030?
- Does FortisBC's plan consider green building practices/solar/geo-thermal etc?
- Can FortisBC assist the City of Kelowna with its green technology regarding building practices?
- Was FortisBC involved in setting standards or code changes for EMF?
- What is the timing for the SCGT, now, 5 years from now, or just later?
- Whistler reduced the requirements for a natural gas line required for a gas turbine through community collaboration, is FortisBC considering a similar approach?
- Has FortisBC considered bio-mass generation?
- Has FortisBC considered using any of the beetle kill wood for generation?
- The decision to support a gas turbine is that an economical decision or an operating decision?
- Is bio-mass generation an option?
- How can FortisBC work in concert with the City of Kelowna regarding district energy systems eg steam?
- Has FortisBC projected or allocated any numbers for net-metering energy savings?
- The City of Kelowna has applied to senior government for district energy systems and will be in touch with FortisBC.
- Why does FortisBC not have a planning margin?
- Is FortisBC concerned that it does not have a planning margin?
- What happens if the government states that FortisBC cannot build the SCGT as per the Burrard decision?
- Who required FortisBC to have a planning margin?
- Has the Company decided that a planning margin is necessary?

City of Grand Forks

- Thanks for the community support
- Please give a brief explanation of pump storage hydro and where is it going to be located?
- What is FortisBC's interest in Run of River Hydro systems?
- Will and should the consumer bill fluctuate if FortisBC relies only on the market, it sounds like it should. Could this issue have been avoided with better planning?
- What is the impact of the resource plan on the Climate Charter and Municipal GHG reduction targets? How will the plan affect the purchase of GHG credits?

- Doesn't FortisBC have a contingency fund for projects like this?
- What is the rate impact going to be on the municipal utilities?
- What are the costs of capacity at peak times?
- Would FortisBC ever consider paying more than customer price for power projects?
- Thanks for the Solar Workshop and net metering program

Regional District of Kootenay Boundary

- How does the Waneta expansion work into this?
- Are you going to 3 phase the line to top of Anarchist?
- How does pump storage hydro work?
- As I understand it we have more than enough power in the Kootenays, and not enough in the Okanagan. How does the Boundary fit into this picture?
- Did Sea Breeze approach FortisBC (Cascade Power Project)? I heard that they had
- Can customers feed power back into the grid, what are the prices?
- How does Teck sale effect FortisBC, do they sell capacity at market prices to FortisBC currently or are their sales to FortisBC lower than the Market rate? Will the Teck sale to BC Hydro increase FortisBC rates?
- Can you get me up to speed on this? Was the sale to Teck and open bid, did FortisBC put in an offer
- Any interest in buying some co-gen power?

Village of Keremeos


- What is the overall efficiency of PHS?
- How long have we been aware of the energy and capacity gap?
- Why did we not recognize in 2005 that we would have a shortfall?
- Is the Teck transmission line for export only?
- Why are we losing the Teck supply?
- Why are we being reactive instead of proactive?
- Are we using geo-thermal?
- Is FortisBC softening us up for rate increases?
- What are our projected annual rate increases?
- How much will the rates rise in the next 20 years?
- What are the average cost increases for the residential customer?

Village of Fruitvale

- Did you not just build some generation in the Okanagan that people were against?
- Can you explain how Pumped Storage Hydro works?
- It was suggested that the Village generate its own power - not wanting to cut FortisBC out of it, of course.
- What is it that you are wanting from the Village at this time?

Regional District of Okanagan Similkameen

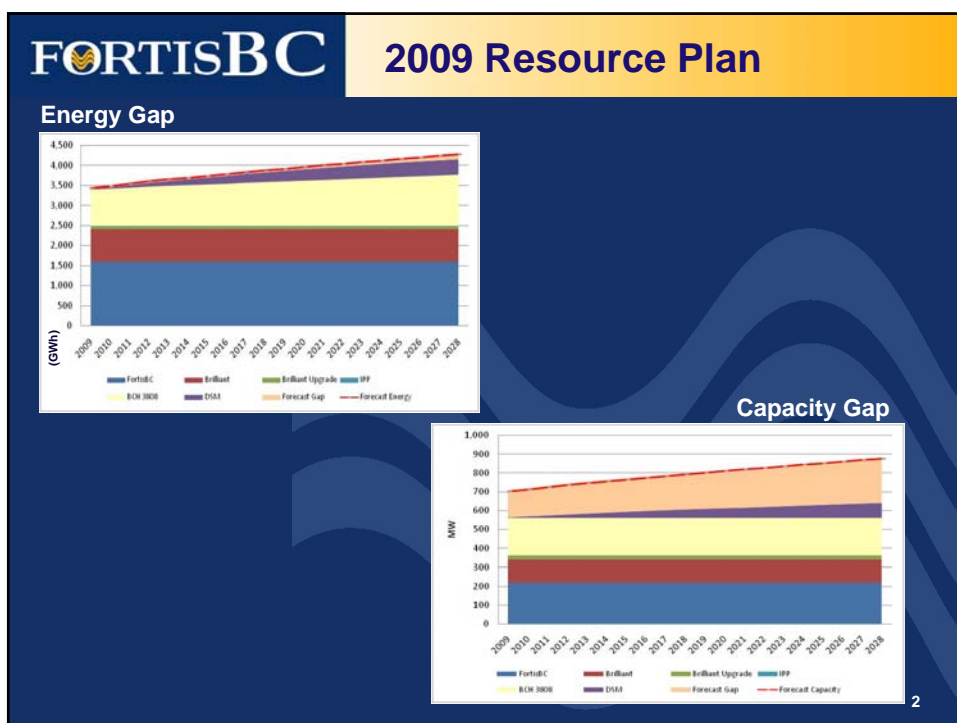
- Why are the Kootenays under capacity and the Okanagan nearing full capacity?
- Will this plan help the City of Penticton become carbon neutral?
- How can the City of Penticton ensure or request that a new generation site is established in or near the city?
- As the process moves forward will FortisBC be communicating with RDOS staff?
- Is it a correct assumption that FortisBC is supporting a combination of conservation and self sufficiency?
- FortisBC's mindset is in the right place but we are not doing enough for energy conservation.
- Why is nuclear power not considered?
- When we have the Simple Cycle Gas Turbine and Pumped Storage Hydro in place will customers who use solar panels and wind generation be able to feed back into the grid?
- Is FortisBC actively soliciting generation proposals?
- Would FortisBC financially support a 1 meg project?
- Electrical generation is a game of scale.
- Would FortisBC build a large dam?
- BC has the lowest price for power which appears to be false.
- Are we tied to BC Hydro?
- Do FortisBC and BC Hydro have separate tariffs?
- Does FortisBC support home IPP projects?
- Will we be spending more money in 2010 on potential generation opportunities?



FortisBC Inc.

2009 Resource Plan

Ian Dyck,
Project Manager Resource Plan
(250) 368-0345
ian.dyck@fortisbc.com



Recommended Planning Margin

	2009	2013	2018	2023	2027
A) Expected Load Forecast Annual Peak Demand (MW)	701	746	792	836	868
B) Forecast Peak Demand minus BCH 3808 Purchase (MW)	501	546	592	636	668
C) WECC Criteria (5% of Expected Load Forecast (B)) (MW)	25	27	30	32	33
D) Largest Generating Unit (Brilliant unit)	37	37	37	37	37
E) Total Recommended Planning Margin (MW) (sum C & D, above)	62	65	67	69	71
F) Recommended Planning Margin as Percent of A (E/A)	8.90%	8.66%	8.45%	8.27%	8.15%
G) Existing Operating Reserve (MW)	18	18	18	18	18
H) Additional Planning Margin Required (MW)	45	47	49	51	53
I) Additional Planning Margin Required as a Percent	6.36%	6.28%	6.20%	6.14%	6.10%

3

Demand Side Management (DSM)

- DSM is the first resource solution that FortisBC applies to its existing and forecast energy and capacity gaps.
- FortisBC's existing DSM programs are expected to meet about 30% of annual growth
- Target is to meet 50% of incremental resource needs via DSM measures by 2020 – this meets the policy indicated by the BC Energy Plan.

4

Assessment Criteria

1. After new resources are in place and after application of DSM, are the forecast capacity and energy gaps closed, and is there a Planning Margin?
2. What are the environmental impacts associated with each potential resource?
3. How well do the resources meet policy actions set out in the BC Energy Plan?
4. Are the resources economical?

5

Portfolio 1 (“P1 – BC MARKETS”)

This portfolio assumes that FortisBC will satisfy its existing and forecast capacity and energy gaps, and its need for a Planning Margin, pursuant to new power purchase agreements entered into with British Columbia-based power suppliers.

These suppliers could be any of BC Hydro, Columbia Power Corporation/Columbia Basin Trust, Teck and/or other Independent Power Producers.

New generation resources may have to be built to supply FortisBC's requirements, and it is the Company's expectation that it would have to pay market prices for the capacity and energy so supplied. This portfolio of generation resources is modeled to mimic the operational characteristics of those resources that may have to be built to supply FortisBC's load.

6

Portfolio 2 (“P2 – GAS”)

This portfolio assumes that FortisBC will satisfy its existing and forecast capacity and energy gaps, and its need for a Planning Margin, through construction of a series of Simple Cycle Gas Turbine units, the sizes and timing-of-acquisition of which are determined by the growing size of the Company's forecast capacity gap.

7

Portfolio 3 – (“P3 – HYBRID”)

This portfolio assumes that FortisBC will satisfy its existing and forecast capacity and energy gaps, and its need for a Planning Margin, through construction of a combination of clean, renewable resources with a gas-fueled peaking resource.

Small Hydro with Capacity and Pumped Storage Hydro facilities provide the peaking and storage capacity necessary to shape energy to meet FortisBC's requirements. Later in the planning period, a source of intermittent Clean energy (for modeling purposes, Wind) is added to the portfolio.

Simple Cycle Gas Turbine provides short term peaking capability pending the Pumped Storage Hydro's in-service date and then converts to a standby Planning Margin role.

8

Rate Impact

Portfolio Cost Elements (NPV @8% in \$2009 millions)

	A	B	C	D	E	F		
Portfolio	Cost for Market Purchases	Power Cost for New Resources	Surplus Energy Sales	Capital Related Cost	Planning Margin	Total	Average Annual Rate Impact	20 Year Cumulative Rate Impact
P1 - BC MARKETS	\$7.6	\$311.3	\$0.0	\$24.9	\$12.8	\$356.6	1.12%	24.65%
P2 - GAS	\$7.5	\$51.6	\$0.0	\$143.8	\$9.0	\$211.9	0.66%	13.54%
P3 - HYBRID	\$7.8	\$61.3	(\$31.8)	\$272.7	\$11.8	\$321.9	1.18%	25.75%

Column A - cost of purchasing capacity and energy from the wholesale electricity market prior to new portfolio resources coming on-line.

Column B - represents the costs associated with power production, including variable O&M, fuel, and GHG-related costs. In P1 - BC MARKETS this includes both the cost of capacity and cost of energy, as discussed in Section 7.3.5.2.. For P3 - HYBRID this includes the refill costs associated with the PSH, as discussed in Section 7.3.1.

Column C - represents potential surplus sales revenues, based upon the forecast in Table 7.6.

Column D - represents all rate requirement capital-related costs associated with new capital investment.

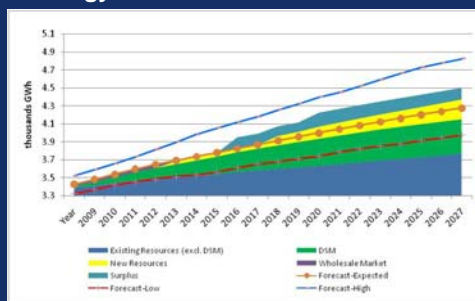
Column E - represents the cost associated with the market-based interim Planning Margin product purchased prior to a portfolio having a physical Planning Margin in place.

Column F is the total of Columns A through E

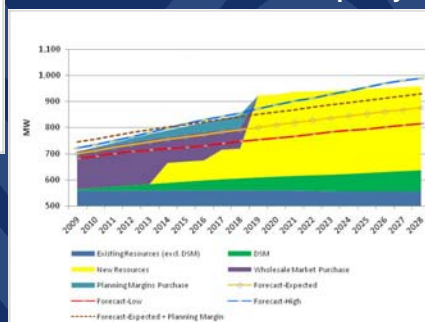
9

P3 – HYBRID - Preferred Resource Strategy

Energy



Capacity



10

FORTISBC

2009 Resource Plan

Status – Action Plan

Filed with the British Columbia Utilities Commission on May 29, 2009; awaiting regulatory process -

- a) Requesting acceptance of its 2009 Resource Plan (including the P3 – HYBRID portfolio as the Company's preferred resource strategy).
- b) FortisBC is also requesting the Commission to accept the following schedule of proposed expenditures.
 - **Planning Margin:** expenditures of up to \$150,000 in 2010 for the preparation and implementation of an RFP process that will result in the identification of a preferred planning margin (capacity product) resource for which FortisBC will seek approval from the Commission.
 - **Simple Cycle Gas Turbine:** expenditures of up to \$1.5 million required in 2010 and 2011 to complete pre-CPCN work necessary to prepare and file a thorough CPCN application in time to meet an in-service date of 2014.
 - **Small Hydro:** expenditures of up to \$500,000 required in 2010 to complete the pre-CPCN work necessary to prepare and file a thorough CPCN application in time to meet an in-service date of 2017.
 - **Pumped Storage Hydro:** expenditures of up to \$500,000 required in 2010 to complete the pre-CPCN work necessary to prepare and file a thorough CPCN application in time to meet a proposed in-service date of 2019.
 - **Clean:** expenditures of up to \$250,000 are required in 2012 for the investigation of the potential for a new Clean Energy resource(s) suitable for FortisBC.

11

FORTISBC

2009 Resource Plan

Contact Information

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Lavern Humphrey – Regulatory Coordinator
 lavern.humphrey@fortisbc.com Ph: 250 368 0386

Bob Gibney – Manager Corporate Services & Aboriginal Affairs
 bob.gibney@fortisbc.com Ph: 250 469 8006

Blair Weston – PowerSense Technical Advisor
 blair.weston@fortisbc.com Ph: 250 368 0509

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