FORTISBC

Preliminary 2010 Revenue Requirements

Tab 7

Capital Expenditures

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7.0 Overview

The most significant areas of FortisBC's capital expenditures in 2009 and 2010 are those required to expand and upgrade the bulk transmission and distribution system to keep pace with load growth, and to continue the ongoing program of life extension at FortisBC's generating plants.

Table 7.0 below summarizes 2009 and 2010 capital projects, as approved by Commission Order G-11-09 concerning the 2009-2010 Capital Expenditure Plan, in conjunction with Orders C-1-09 (Benvoulin Substation Project) and C-5-09 (Corra Linn Unit 2 Upgrade and Life Extension). Included in 2010 General Plant is an estimate of expenditures required for compliance with provincial Mandatory Reliability Standards, as discussed in Section 7.2.5.

Table 7.0: 2009 and 2010 Capital Expenditures by Category

	2009		2010	
	Plan	**Forecast**	**Plan**	**Forecast**
	($millions)			
Generation	21.5	20.2	20.1	19.1
Transmission & Stations	94.9	52.0	85.3	91.8
Distribution [(1)]	22.1	23.1	25.9	29.5
Telecommunication	2.1	2.9	2.1	2.3
Information Systems	5.2	4.5	4.5	4.5
General Plant [(2)]	4.9	4.7	4.7	7.1
Demand Side Management	2.5	2.5	2.7	2.8
TOTAL [(3)]	**153.1**	**110.0**	**145.2**	**157.1**
Variance		(43.1)		11.9

(1) *Distribution System Extensions are net of Contributions In Aid of Construction.*
(2) *Includes Mandatory Reliability Standards compliance.*
(3) *Differences due to rounding.*

7.1 2009 Forecast

This section provides a comparison of the 2009 Capital Plan by major category to the 2009 forecast expenditures.

7.1.1 Generation

FortisBC has a total of fifteen generating units in its four power plants. Since 1997 a major Upgrade and Life Extension ("ULE") program has been underway and the majority of Generation expenditures in 2009 and 2010 are related to these ULEs and related projects.

Generation expenditures are forecast to be $20.2 million in 2009, a decrease of approximately $1.3 million from plan. The majority of Generation capital expenditures in 2009 are related to the Life Extension projects at the South Slocan and Corra Linn generating plants along with related projects. The South Slocan Units 3 and 1 and Corra Linn Unit 1 projects are the eighth, ninth, and tenth of eleven projects to be undertaken in the "water to wires" refurbishment of FortisBC's generating units.

The reduction in 2009 forecast Generation expenditures is primarily due to changes to the contractor progress payments for large equipment for the Corra Linn Unit 1 Life Extension Project, resulting in a decrease in spending of approximately $1.5 million in 2009. These reductions were partially offset by increased expenditures of $0.6 million in 2009 due to a delay in delivery of equipment for the South Slocan Unit 1 Life Extension Project resulting in a carryover of spending from 2008 to 2009.

Phase I of the Upper Bonnington Old Unit Repowering Project involves a safety and preservation investment to address operations over a five-year period. The Company is investigating the potential for future life extensions and/or upgrades, which will be subject to BCUC approval.

Table 7.1.1: Generation Projects 2009 Expenditures

		Plan	Forecast	Difference
		($000s)		
1	South Slocan Unit 1 Life Extension	7,832	8,399	567
2	South Slocan Unit 3 Life Extension	2,051	1,949	(102)
3	Corra Linn Unit 1 Life Extension	4,487	2,939	(1,548)
4	South Slocan Plant Completion	940	690	(250)
5	Upper Bonnington Old Unit Repowering (Ph.1)	1,094	973	(121)
6	South Slocan Unit 1 Head Gate Rebuild	577	789	212
7	South Slocan Head Gate Hoist, Control, Wire Rope Upgrade	434	737	303
8	All Plants Upgrade Station Service Supply	484	597	113
9	All Plants Lighting Upgrade	478	420	(58)
10	All Plants Spare Unit Transformer	1,380	1,148	(232)
11	**Minor Projects**	**1,778**	**1,584**	**(194)**
12	**Total Generation**	**21,535**	**20,225**	**(1,310)**

7.1.2 Transmission and Stations

Consistent with the past few years, Transmission and Stations continues to be the largest category of expenditure and comprises approximately 54 percent of forecast 2009 – 2010 expenditures. The $143.8 million forecast for this period is needed to continue the multiyear transmission reinforcement projects in the south Okanagan and Kelowna regions. These projects are required to address growth and reliability issues and consist of the construction of five new substations and the replacement of deteriorated and defective assets on the aging transmission and stations infrastructure.

The Okanagan Transmission Reinforcement ("OTR") project is the largest of these projects, estimated at approximately $104.8 million. Also included in this category is the Benvoulin Substation Project in Kelowna, estimated at approximately $17.7 million.

Changes in the timing of approved Transmission and Stations projects, in particular the OTR Project, are primarily responsible for lower 2009 expenditures

compared to Plan. Total 2009 Transmission and Stations expenditures are forecast to be $52.0 million, compared to the plan of $94.9 million.

Table 7.1.2: Transmission and Stations Projects 2009 Expenditures

		Plan	Forecast	Difference
		($000s)		
1	Ellison Distribution Source	1,734	6,599	4,865
2	Black Mountain Distribution Source	4,517	6,871	2,354
3	Naramata Substation	3,962	2,728	(1,234)
4	Okanagan Transmission Reinforcement	65,265	20,069	(45,196)
5	Ootischenia Substation	389	142	(247)
6	Benvoulin Distribution Source	4,382	4,434	52
7	Recreation Capacity Increase Stage 1,2,3	178	918	740
8	Kelowna Distribution Capacity Requirements	518	251	(267)
9	Tarrys Capacity Increase	403	363	(40)
10	30 Line Conversion	4,500	2,109	(2,391)
11	Big White 138 kV Line & Substation	-	124	124
12	Kettle Valley	-	610	610
13	**Subtotal, Growth**	**85,848**	**45,218**	**(40,630)**
14	**Transmission Sustaining**	**4,401**	**3,621**	**(780)**
15	**Stations Sustaining**	**4,671**	**4,017**	**(654)**
16	Capitalized Inventory		(836)	(836)
17	**Transmission & Stations Total**	**94,920**	**52,020**	**(42,900)**

Timing changes for a number of major projects account for the majority of variance from planned expenditures. Variances by project are described below:

- The Ellison Distribution Source project was delayed due to land rezoning issues and an application by intervenors, later denied, for reconsideration of the CPCN approving the project. The 2009 forecast will be overspent by $4.9 million as a result;
- Rezoning issues also delayed the start of the Black Mountain Distribution Source Project in 2008. Work is now substantially complete, with 2009 forecast expenditures of $6.9 million compared to plan of $4.5 million;

- The Naramata Substation Project is forecast at $1.2 million lower than plan in 2009, primarily because the civil and site preparation tenders were lower than expected;
- 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;
- Some engineering and civil work was accelerated in 2009 for the Recreation Capacity Increase Project, resulting in expenditures of $0.9 million compared to plan of $0.2 million;
- The 30 Line Conversion Project has a forecast of $2.1 million compared to plan of $4.5 million in 2009 due to lengthy delivery times for key equipment;
- The 2009 Transmission Sustaining expenditures are lower than plan by $0.8 million as $0.5 million from the Transmission Line Pine Beetle Hazard allocation was transferred to the Distribution portion of the project. In addition, 2009 Stations Sustaining expenditures for the Creston Substation Protection Upgrade were delayed to 2010 due to unavailability of materials; and
- Lower inventory levels are forecast to reduce capital expenditures by $0.8 million in 2009.

7.1.3 Distribution

Approximately $23.1 million or 21 percent of the 2009 capital expenditures are related to Distribution projects. These expenditures are required to service new customers, improve reliability, and to replace aging assets. Of the $23.1 million, $8.9 million (net of customer contributions in aid of construction ["CIAC"]) will be required to install new services for the growing customer base.

Forecast Distribution capital expenditures are $1.0 million higher than the original plan of $22.1 million. The following table provides the 2009 variances by project.

Table 7.1.3: Distribution Projects 2009 Expenditures

		Plan	Forecast	Difference
1	**Growth**		**($000s)**	
2	New Connects System Wide	9,788	8,942	(846)
4	Glenmore - New Feeder	788	788	-
5	Small Capacity Improvements Unplanned	974	340	(634)
6	Hollywood Feeder 1 - OK Mission Feeder 1 Tie	-	269	269
7	Valhalla Feeder 1 Capacity Upgrade	-	763	763
8	FA Lee Feeder 2 - Hollywood Feeder 5 Tie	-	346	346
9	**Total Growth**	**11,550**	**11,448**	**(102)**
10	**Sustaining**	**10,502**	**11,657**	**1,155**
11	**Total**	**22,052**	**23,105**	**1,053**

The increase of $1.0 million in forecast Distribution capital expenditures is primarily due to:

- Expenditures required to service new customers in 2009 are forecast to decrease by $0.8 million from a plan of $9.8 million to a forecast of $8.9 million;
- Small unplanned 2009 capacity improvements are forecast to be lower than plan by $0.6 million;
- 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. The replacement of copper conductor in FortisBC's service territory has been

reassessed to address locations with the greatest risk to public and employee safety from potential conductor failure; and

- 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.

7.1.4 Telecommunication

The $2.9 million of expenditures forecast in 2009 covers Distribution Substation Automation ("DSA"), Protection and Sustaining expenditures including protection and control and communications. Several multi-year projects include such items as extending the coverage of substation automation and upgrading the protection and communication at various substations to provide fault locating and recording for improved reliability in the area. The following table provides the 2009 variance by project.

Table 7.1.4: Telecommunication Projects 2009 Expenditures

		Plan	Forecast	Difference
		($000s)		
1	Distribution Substation Automation	1,338	2,066	728
2	Sustaining	747	800	53
3	**Total**	**2,085**	**2,866**	**781**

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.

7.1.5 Information Systems and General Plant

The 2009 Information Systems forecast expenditures of $4.5 million are $0.7 million lower than plan, primarily due to the reduction in system changes required to meet business requirements. The reduced requirements were attributable to some process changes, and fewer system changes than expected for financial systems, such as changes related to IFRS.

The remaining General Plant forecast expenditures of $5.5 million are $0.1 million less than the 2009 plan in total. Telecommunications expenditures in this

category include landline equipment, VHF field communications equipment, microwave substation controls and installation of isolation equipment when installing Telus lines into substations.

The following table provides the 2009 variance by category.

Table 7.1.5 Information Systems and General Plant Projects 2009 Expenditures

		Plan	Forecast	Difference
		($000s)		
1	Information Systems	5,167	4,495	(672)
2	Vehicles	2,000	2,000	0
3	Metering Changes to Uninstalled Meter Inventory	526	526	0
4	Telecommunications	105	94	(11)
5	Buildings	1,305	1,305	0
6	Furniture and Fixtures	347	301	(46)
7	Tools and Equipment	572	516	(56)
8	**Total**	**10,022**	**9,237**	**(785)**

7.1.6 Demand Side Management

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.

The completion of these DSM projects supports the government's energy objectives, in particular objective (b): "to encourage public utilities to take demand-side measures".

These projects also facilitate the Policy Actions contained in the BC Energy Plan, in particular No. 1, 2 and 3:

- Set an ambitious conservation targets to acquire 50 percent incremental resource needs through conservation by 2020;
- Ensure a coordinated approach to conservation and efficiency is actively pursued in British Columbia; and

- Encourage utilities to pursue cost effective and competitive demand side management opportunities.

7.2 2010 Forecast

This section provides a comparison of the 2010 Capital Plan by major category to the 2010 forecast expenditures.

7.2.1 Generation

Generation capital expenditures in 2010 are primarily related to the ongoing ULE program and associated projects. 2010 expenditures are forecast at $19.1 million compared to planned expenditures of $20.1 million.

Changes to the schedules of contractor progress payments for the South Slocan Unit 1 and Corra Linn Unit 1 Life Extension projects resulting in a net increase of $0.4 million in 2010. 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. The South Slocan Unit 1 Head Gate Rebuild was also advanced to 2009 to coincide with the Unit 1 ULE schedule.

Timing of plant in service reduced AFUDC for the Upper Bonnington Old Unit Repowering Project (Phase I), reducing planned 2010 expenditures by $0.2 million.

Table 7.2.1: Generation Projects 2010 Expenditures

		Plan	Forecast	Difference
		($000s)		
1	South Slocan Unit 1 Life Extension	3,261	2,459	(802)
2	Corra Linn Unit 1 Life Extension	8,476	9,680	1,204
3	Corra Linn Unit 2 Upgrade Life Extension	2,997	2,987	(10)
4	South Slocan Plant Completion	1,598	727	(871)
5	Upper Bonnington Old Unit Repowering (Ph.1)	651	461	(190)
6	South Slocan Unit 1 Head Gate Rebuild	279	65	(214)
7	All Plants Upgrade Station Service Supply	1,191	1,191	-
8	All Plants Lighting Upgrade	338	306	(32)
9	**Minor Projects**	**1,287**	**1,227**	**(60)**
10	**Total Generation**	**20,078**	**19,103**	**(975)**

7.2.2 Transmission and Stations

Expenditures for 2010 are forecast to increase by approximately $6.5 million. An explanation of the variance from planned expenditures is provided below:

- The Ellison Substation Project, previously expected to be complete in 2009, was delayed due to rezoning and regulatory processes as explained in section 7.1.2 above;
- 2010 expenditures for the OTR Project are forecast to exceed planned expenditures by $4.4 million as a result of changes to project component schedules. Overall, this project is now estimated at $104.8 million compared to an initial forecast of $141.3 million, benefiting from fixed price contracts now in place;
- 2010 expenditures for the Recreation Capacity Increase Project are forecast to be $1.1 million under plan as a result of increased engineering and civil work completed in 2009;
- The 30 Line Conversion Project, originally scheduled for completion in 2009, was delayed due to lengthy delivery times on key equipment. $2.3 million is forecast to complete the project in 2010; and
- A carryover of 2009 spending in the amount of $0.4 million for Station Sustaining projects.

Table 7.2.2: Transmission and Station Projects 2010 Expenditures

		Plan	Forecast	Difference
		($000s)		
1	Ellison Distribution Source	-	500	500
2	Okanagan Transmission Reinforcement	57,893	62,325	4,432
3	Benvoulin Distribution Source	13,301	13,301	-
4	Recreation Capacity Increase Stage 1,2,3	3,401	2,257	(1,144)
5	Kelowna Distribution Capacity Requirements	517	517	-
6	Huth Substation Upgrade	413	413	-
7	30 Line Conversion		2,340	2,340
8	**Subtotal, Growth**	**75,525**	**81,653**	**6,128**
9	**Transmission Sustaining**	**4,871**	**4,871**	**-**
10	**Stations Sustaining**	**4,920**	**5,303**	**383**
11	**Transmission & Stations Total**	**85,316**	**91,827**	**6,511**

7.2.3 Distribution

Based on projected customer and load growth, $15.0 million will be required to build lines, upgrade existing lines and install equipment to service the growing customer base. A similar amount of $14.5 million in Sustaining capital is required for the replacement of deteriorated and failing plant and equipment. This amount includes $3.6 million to address, on a priority basis, replacement of copper conductor in locations where the risk of conductor failure to public and employee safety is significant.

Table 7.2.3; Distribution Projects 2010 Expenditures

		Plan	Forecast	Difference
1	**Growth**		**($000s)**	
2	New Connects System Wide	10,670	10,670	-
3	Airport Way Upgrade (Ellison Feeder 3)	1,551	1,551	-
4	Hollywood Feeder 3 - Sexsmith Feeder 4 Tie	365	365	-
5	Beaver Park - Fruitvale Distribution Tie	1,227	1,227	-
6	Small Growth Projects	137	137	-
7	Small Capacity Improvements Unplanned	994	994	-
8	**Total Growth**	**14,944**	**14,944**	-
9	**Sustaining**	**10,953**	**14,525**	**3,572**
10	**Total**	**25,897**	**29,469**	**3,572**

7.2.4 Telecommunication

The majority of the $2.3 million budget planned for this category in 2010 is for the continuation of the DSA Project, with increased expenditures of approximately $0.2 million resulting from the rescheduling of substations under the DSA project to align with other capital works underway or planned. Overall, the DSA project is forecast to meet budget.

Table 7.2.4: Telecommunication Projects 2010 Expenditures

		Plan	Forecast	Difference
		($000s)		
1	Distribution Substation Automation	1,438	1,664	226
2	Sustaining	619	619	-
3	**Total**	**2,057**	**2,283**	**226**

7.2.5 Information Systems and General Plant

The information systems expenditures of $4.5 million planned for 2010 are mainly driven by application software upgrades to improve customer service, business operations and employee efficiency. As well, there are general hardware and operating software upgrades to accommodate increasing business growth, unexpected equipment failures and vendor support issues.

On June 4, 2009 the Commission, by Order G-67-09, adopted Mandatory Reliability Standards developed by NERC and WECC for British Columbia and ordered utilities to file no later than December 31, 2009 a Mitigation Plan confirming compliance with applicable reliability standards and/or outlining how they intend to bring themselves into compliance with applicable reliability standards and by what date they expect to become compliant. FortisBC's preliminary review of the standards suggests a required capital expenditure in 2010 of $2.4 million, subject to Commission approval of its Mitigation Plan.

The remainder of the planned expenditures of $4.7 million for General Plant are primarily associated with vehicles ($2.0 million), buildings ($1.1 million), furniture ($0.4 million), tools and equipment ($0.6 million), and metering equipment ($0.6 million).

Table 7.2.5: Information Systems and General Plant Projects 2010 Expenditures

		Plan	Forecast	Difference
		($000s)		
1	Information Systems	4,499	4,494	5
2	Mandatory Reliability Standards Compliance	-	2,399	2,399
3	Vehicles	2,000	2,000	-
4	Metering Changes to Uninstalled Meter Inventory	559	559	-
5	Telecommunications	106	106	-
6	Buildings	1,062	1,062	-
7	Furniture and Fixtures	393	393	-
8	Tools and Equipment	575	575	-
9	**TOTAL**	9,189	11,588	2,394

7.2.6 Demand Side Management

The 2010 Demand Side Management expenditures of $2.8 million (net of tax) exceeds the 2009/10 Capital Plan by $0.1 million as a result of a reduction in the statutory income tax rate for 2010. Pre-tax expenditures of $3.95 million are unchanged from the planned amount.