



IN THE MATTER OF

FORTISBC INC.

AND

**AN APPLICATION FOR APPROVAL OF
2009-2010 CAPITAL EXPENDITURE PLAN**

DECISION

February 27, 2009

BEFORE:

**A.W. Keith Anderson, Panel Chair & Commissioner
Alison A. Rhodes, Commissioner**

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OVERVIEW

This Decision is issued concurrently with Commission Order G-11-09.

Section 1 describes the background of the Application, briefly describes the Applicant, the Application, the regulatory background to the Application, and the process by which the Application was heard.

Section 2 addresses the major and smaller sustaining Generation projects included in FortisBC's Application and the Commission Panel's determination(s) with respect to those projects.

Section 3 addresses projects included in the Application for Transmission and Stations - growth and sustaining projects, and the Commission Panel's determination(s) with respect to those projects.

Section 4 addresses projects included in the Application for Distribution- growth and sustaining projects, and the Commission Panel's determination(s) with respect to those projects.

Section 5 discusses Telecommunications, SCADA and Protection & Control and the Commission Panel's determination(s) with respect to those projects.

Section 6 discusses the Company's Demand Side Management expenditures and the Commission Panel's determination(s) with respect to those projects.

Section 7 addresses proposed expenditures for General Plant and the Commission Panel's determinations with respect to those expenditures.

Section 8 addresses Other Matters related to the Application and Decision and the Commission Panel's determination(s) with respect to those matters. The Commission Panel determinations and approvals throughout this Decision are subject to the direction in Section 8.3 with respect to the 4.6 percent general rate increase approved in Commission Order G-193-08.

1.0 BACKGROUND AND REGULATORY PROCESS

On June 27, 2008 FortisBC Inc. (“FortisBC” or “the Company”) filed an application (“Application”) with the British Columbia Utilities Commission (the “Commission”) for approval of its 2009-2010 Capital Expenditure Plan (“CEP”), and also filed its 2009 System Development Plan (“SDP”) Update.

1.1 The Applicant

FortisBC is an investor-owned, integrated utility engaged in the business of generation, transmission, distribution and sale of electricity in the Southern Interior region of British Columbia. The Company serves approximately 152,000 customers directly and indirectly, and employs approximately 570 people. It was incorporated in 1897, and is regulated by the Commission pursuant to the *Utilities Commission Act* R.S.B.C. 1996 c 473 as amended (the “Act” or “UCA”).

1.2 Order Sought

FortisBC seeks an Order of the Commission confirming that the 2009/10 CEP satisfies the requirements of section 44.2 (1) (a) and (b), and section 45(6) of the UCA, and that the Capital projects contained in the listed tables and discussed in the Application are in the public interest pursuant to Section 44.2 (3) (a).

1.3 Regulatory Background

Section 44.2 of the Act states, in part, that:

“(1) A public utility may file with the commission an expenditure schedule containing one or more of the following:

- (a) a statement of the expenditures on demand-side measures the public utility has made or anticipates making during the period addressed by the schedule;

(b) a statement of capital expenditures the public utility has made or anticipates making during the period addressed by the schedule; ...

(3) After reviewing an expenditure schedule submitted under subsection (1), the commission, subject to subsections (5) and (6), must

- (a) accept the schedule, if the commission considers that making the expenditures referred to in the schedule would be in the public interest, or
- (b) reject the schedule.

(4) The commission may accept or reject, under subsection (3), a part of a schedule.

(5) In considering whether to accept an expenditure schedule, the commission must consider

- (a) the government's energy objectives,
- (b) the most recent long-term resource plan filed by the public utility under section 44.1, if any,
- (c) whether the schedule is consistent with the requirements under section 64.01 or 64.02, if applicable,
- (d) if the schedule includes expenditures on demand-side measures, whether the demand-side measures are cost-effective within the meaning prescribed by regulation, if any, and
- (e) the interests of persons in British Columbia who receive or may receive service from the public utility.

Section 45(6) of the UCA states that: “(6) A public utility must file with the commission at least once each year a statement in a form prescribed by the commission of the extensions to its facilities that it plans to construct.”

1.4 CEP & SDP Overview

FortisBC introduces its Application with the following statement:

“The 2009-2010 Capital Expenditure Plan...consists of expenditures of \$178.8 million in 2009 and \$181.1 million in 2010. These expenditures are necessary to ensure the ability to provide service, public and employee safety and reliability of supply to the

Company's growing customer base. The projects associated with these expenditures support the BC Government's energy objectives as defined in Section 1 of the Utilities Commission Act R.S.B.C. 1996, c.473 as amended by Bill 15-2008 (the "UCA"), and policy actions as outlined in the 2007 BC Energy Plan (the "Energy Plan"). These projects are considered by the Company to be in the public interest. The most significant areas of expenditure 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." (Exhibit B-1, p. 5)

The estimated expenditures for 2009 and 2010 were revised to \$178.4 million and \$180.7 million respectively in FortisBC's Reply Argument.

FortisBC has also included its 2009 SDP Update, which is basically a continually evolving document that, in this iteration, describes projects currently scheduled for the 2009-2010 timeframe, and the status of projects included in prior SDPs. No order is requested relating to the 2009 SDP.

The following table summarises the planned expenditures for 2009 and 2010, and, in three categories, future years. It also shows the anticipated operations savings associated with these capital expenditures.

Table 1

Revised Table 1.1
2009/10 capital Expenditures Plan

	2009 Expenditures	2010 Expenditures	Future Expenditures
	(\$millions)		
Generation	21.9	22.6	24.7
Transmission and Stations	96.0	88.6	3.0
Distribution	27.9	33.5	
Telecom, SCADA, Protection and Control	2.2	2.2	1.6
Demand Side Management	2.5	2.7	
General Plant	27.8	31.2	
TOTAL Capital	178.4	180.7	29.3
Annual Operating Savings	0.2	0.72	

(FortisBC Reply Argument, p. 2)

2.0 GENERATION

2.1 Major Sustaining Projects

The Application includes major sustaining Generation Projects with estimated expenditures totalling \$19.9 and \$21.0 million in 2009 and 2010 respectively, and total costs of \$91.6 million as listed in the following table. Projects one through nine, with the exception of number four, Corra Linn 2 Life Extension, (“Corra Linn 2”) were all previously approved as part of the life extension program initially embarked on in 1997. It is noted that the Corra Linn Unit 1 Life Extension project is experiencing a significant financial overrun. (Exhibit B-1, p. 20)

Table 2Table 2.1
Generation Projects

		Previously Approved	Expenditures to Dec 31\08 ¹	2009	2010	Future ²	Total
			(\$000s)				
	Sustaining						
1	South Slocan Unit 1 Life Extension	G-52-05	6,729	7,832	3,261	39	17,861
2	South Slocan Unit 3 Life Extension	G-147-06	11,010	2,051	-	-	13,061
3	Corra Linn Unit 1 Life Extension	G-147-06	874	4,487	8,476	5,113	18,950
4	Corra Linn Unit 2 Life Extension		-	104	5,264	17,313	22,681
5	South Slocan Plant Completion	G-147-06	1,012	940	1,598	-	3,550
6	Upper Bonnington Civil \ Structural Upgrade and Old Unit Repowering (Phase 1)	G-147-06	4,142	1,094	651	-	5,887
7	South Slocan Unit 1 Headgate Rebuild	G-147-06	-	577	279	-	856
8	South Slocan Headgate Hoist, Control, Wire Rope Upgrade	G-147-06	669	434	-	-	1,103
9	Generating Plants Upgrade Station Service Supply	G-147-06	1,144	484	1,191	2,192	5,011
10	Generating Plants Area Lighting		-	478	338	-	816
13	All Plants Spare Unit Transformer		469	1,380	-	-	1,849
13	Subtotal Major Projects		26,049	19,861	21,058	24,657	91,625
14	Subtotal Minor Projects from Table 2.2		-	2,074	1,499	-	3,573
15	Total Generation		26,049	21,935	22,557	24,657	95,198

¹Future expenditure for ongoing sustaining programs have not been included in these tables.

²All forecast figures are based on forecasts as of April 30, 2008.

(Exhibit B-1, p. 20)

Commission Determination

The major sustaining Generation projects, other than Corra Linn 2, Generating Plant Area Lighting and All Plants Spare Unit Transformer have previously received Commission approvals through CPCN applications, and accordingly no further Commission Panel determinations with respect to those projects is required as part of this Application.

Corra Linn Unit 2 Life Extension – Project 4

FortisBC describes the Corra Linn Unit 2 Life Extension project as the eleventh and last unit in the Company's upgrade and life extension ("ULE") program. The project has total estimated expenditures of \$22.681 million, as shown in the table above, and is stated to be required to "maintain the generating capability of the hydroelectric unit." The project is a multi-year project which is scheduled for completion in 2012. The project will follow the same condition assessment of major unit components and systems as previous upgrade and life extension projects. A turbine condition assessment has yet to be completed. However, as with Corra Linn Unit 1, it is anticipated that a new turbine will be required; therefore the current budget estimate includes the cost of a new turbine. Also included in this project are the total plant completion tasks. These tasks collectively capture all the necessary improvements required to bring the entire plant up to a current level of technology. Also included in this project are upgrades to the plant's ancillary systems and completion of documentation. (Exhibit B-1, pp. 23, 24)

Commission Determination – Project 4

The Commission Panel notes the comments of Mr. Wait concerning Corra Linn 2: "I also agree with FortisBC that a CPCN should not be required for the upgrade to Corra Linn Unit #2 as this upgrade process has been going on for many years now. A CPCN process would be a complete waste of time and money." (Alan Wait, Intervenor Submission) However, the Commission Panel determines that in light of other factors, including the project cost forecast, which is in excess of

\$20 million, the turbine replacement condition assessment not yet having been completed and the cost escalation experienced with the Corra Linn 1 project, the Corra Linn 2 project should be the subject of a CPCN application.

Generating Plants Area Lighting Upgrade – Project 10

This project is being advanced to address employee safety. FortisBC advises that the lighting systems in the basements of the Corra Linn and South Slokan powerhouses and the Lower Bonnington Plant are inadequate and do not meet WorkSafe BC standards. As noted in the table above, the estimated cost to upgrade the lighting systems is \$478,000 in 2009 and \$338,000 in 2010 for a total of \$816,000.

Commission Determination – Project 10

The Commission Panel determines that the Generating Plants Area Lighting Upgrade project as listed is approved as part of the FortisBC CEP Application.

All Plants Spare Unit Transformer - Project 13

FortisBC has requested approval of the cost of a spare transformer together with a storage facility to mitigate the risk of failure of one of its generator step-up unit transformers, a number of which are now past their estimated useful lives.

Commission Determination – Project 13

The Commission Panel considers that the identification of high risk of failure of generation step-up unit transformers at the FortisBC Kootenay River plants should be recognised as having potential for a significant financial and operating impact, and accordingly the Commission Panel determines that the All Plants Spare Unit Transformer project should be approved as requested.

2.2 Generation Small Sustaining Projects

The Application includes small sustaining generation projects with estimated expenditures totalling \$2.1 and \$1.5 million in 2009 and 2010 respectively, as listed in the following table. None of these projects has been previously granted approval through a CPCN.

Table 3Table 2.2
Generation Small Sustaining Projects

Generation Small Sustaining Projects		2009	2010
		(\$000s)	
1	All Plants Fire Safety Upgrade Phase 1	241	
2	All Plants Public Safety & Security Phase 1	82	52
3	Lower Bonnington Power House Crane Upgrade	174	
4	Corra Linn Power House Crane Upgrade	172	
5	Corra Linn East Wingdam Handrail Upgrade	78	
6	All Plants Portable Headgate Closing Device	50	
7	All Plants Spare Exciter Transformer	24	116
8	South Slocan Water Supply Phase 3	47	50
9	All Plants 2009 Pump Upgrades	233	
10	Upper Bonnington & Corra Linn Deluge Valves	50	
11	Lower Bonnington, Upper Bonnington, & Corra Linn Sump Oil Alarm System Upgrade	128	
12	Lower Bonnington & Upper Bonnington Upgrade Spillway Gate Control Phase 1	40	
13	Upper Bonnington & South Slocan Airwash Tank Rehabilitation	108	
14	South Slocan Tailrace Gate Corrosion Control		114
15	Queen's Bay Level Gauge Building Phase 1	67	
16	Upper Bonnington Unit 5 & Unit 6 Tailrace Gate Corrosion Control		139
17	Upper Bonnington Trashrack Gantry Replacement.		417
18	Lower Bonnington Forebay Access Rd. and Intake Upgrade Phase 1 & 2	393	102
19	Corra Linn Spillway Gate Isolation Study	46	
20	South Slocan Dam Rehabilitation Study	46	
21	Lower Bonnington & Upper Bonnington Plant Totalizer Upgrade		212
22	Lower Bonnington & Upper Bonnington Communications Network Completion	95	297
23	Total	2,074	1,499

(Exhibit B-1, p. 30)

Commission Determinations

The Commission Panel has reviewed the Application and related Information Request responses with respect to the above projects and has considered the health, safety, regulatory, operational and financial impact of the projects. With the exception of projects 4, 5, 19, and 21, the Commission Panel approves the projects listed part of the FortisBC CEP.

Projects 4, 5 and 19 are related to the Corra Linn2 facility, and the Commission Panel determines that these projects should be included in the CPCN application directed above for the Corra Linn Unit 2 Life Extension project.

Project 21, Lower & Upper Bonnington Plant Totalizer Upgrade, proposes to replace power meters originally installed in 1995 and 1996 (Exhibit B2, BCUC 1, p. 53). FortisBC's description of the project (Exhibit B1, pp. 38, 39) refers to the existing meters as being obsolete, but does not indicate that the existing meters are non-functional or inaccurate. FortisBC states that the proposed meters are installed at most transmission and distribution substations, but does not indicate whether they are installed at any other generation facilities. The Commission Panel considers that this project has not been adequately justified, and therefore determines that approval for the project is denied at this time.

3.0 TRANSMISSION AND STATIONS

3.1 Transmission & Stations Growth Projects

The Application includes Transmission & Stations growth projects with estimated expenditures totalling \$84.4 and \$76.2 million in 2009 and 2010 respectively, and total project costs of \$220.0 million as listed in the following table. Projects two through seven, with expenditures totalling \$78.8 and \$71.4 million in 2009 and 2010 respectively and total project costs estimated at \$206.3 million, have either been previously granted CPCN approvals, or are the subject of current CPCN applications.

Table 4

Table 3.1
Transmission and Stations Projects

		Previously Approved	CPCN Filed	Expenditures to Dec 31\08 ¹	2009	2010	Future ²	Total
1	GROWTH			(\$000s)				
2	Ellison Distribution Source	C-4-07		15,434	1,734			17,168
3	Black Mountain Source	C-7-07		9,913	4,517			14,430
4	Naramata Substation	G-124-07		3,562	3,962			7,524
5	Okanagan Transmission Reinforcement		Dec 14, 2007	18,250	65,265	57,893		141,408
6	Ootischenia Substation	C-10-07		7,702	389			8,091
7	Benvoulin Substation		Q3 2008	1,200	2,930	13,554		17,684
8	Recreation Capacity Increase				178	3,401		3,579
9	Kelowna Distribution Capacity Requirements				518	517		1,035
10	Tarrys Capacity Increase				403			403
11	Huth Substation Upgrade					413	3000	3,413
12	30 Line Conversion				4,500			4,500
13	Static var Compensators					400		400
14	SUBTOTAL GROWTH			56,061	84,396	76,178	3,000	219,635

¹ Future expenditures for ongoing sustaining programs have not been included in this table.

² All forecast figures are based on forecasts as of April 30, 2008.

(Exhibit B-1, p. 42)

Commission Determinations

As noted above, the transmission and stations growth projects two through seven above have either received Commission approvals through CPCN applications, or are the subject of current CPCN applications, and accordingly no further Commission Panel determinations with respect to those projects are required as part of this Application.

The Commission Panel has reviewed the Application and related Information Request responses with respect to transmission and stations growth projects eight through twelve and has considered the health, safety, regulatory, operational and financial impact of the projects. With the exception of project thirteen, Static var Compensators, the Commission Panel determines that the projects listed are approved as part of the FortisBC CEP Application.

With respect to project thirteen, FortisBC states:

“FortisBC believes that double contingency reliability is the appropriate planning criteria for evaluation of this project, however the exposure to N-2 events is, subject to actual load grow, limited in the near term and for that reason is prepared to defer the initial \$400,000 expenditure planned for 2010.” (Exhibit B-4, BCUC 2 Appendix 151.7, pp.130, 131)

Based on FortisBC’s statement, quoted above, with respect to the Static var Compensator project, the Commission Panel determines that this project will not be approved as part of the FortisBC Application.

3.2 Transmission & Stations Sustaining Projects

The Application includes Transmission and Stations sustaining projects with expenditures totalling \$11.7 and \$12.5 million in 2009 and 2010 respectively, and total project costs estimated at \$24.2 million as listed in the following table.

Table 5

Table 3.1 (cont'd)
Transmission & Station Projects

		Previously Approved	CPCN Filed	Exp. to Dec 31\08 ¹	2009	2010	Future ²	Total
15	SUSTAINING				(\$000s)			
16	Transmission							
17	Transmission Line Urgent Repairs				288	293		
18	Right-of-Way Easements				311	345		
19	Right-of-Way Reclamation				550	602		
20	Transmission Pine Beetle Hazard Allocation				1,218	821		
21	Transmission Line Condition Assessment				427	496		
22	Transmission Rehabilitation				1,639	1,888		
23	Switch Additions					132		
24	20 Line Rebuild				1,943	1,540		
25	27 Line Rebuild				648	642		
26	30 Line Lake-Crossing Rebuild					350		
27	Stations							
28	Station Condition Assessment & Minor Projects				620	680		
29	Ground Grid Upgrades				572			
30	Station Urgent Repairs				473	448		
31	Bulk Oil Breaker Replacement					292		
32	Transformer Load Tap Changers Oil Filtration Project				32	64		
33	Slocan City-Valhalla Substation Upgrade				2,173			
34	Passmore Substation Upgrade					1,987		
35	Pine Street Substation Distribution Breaker Replacement				345			

Continued on next page

36	Princeton Substation Distribution Recloser Replacement					1,513		
37	Joe Rich Transformer Protection Upgrade					404		
38	Creston Substation Protection Upgrade				488			
39	SUBTOTAL SUSTAINING				11,727	12,497		24,224
40	TOTAL			56,061	96,123	88,675	3,000	243,859

¹ Future expenditures for ongoing sustaining programs have not been included in this table.

² All forecast figures are based on forecasts as of April 30, 2008.

(Exhibit B-1, p. 43)

Commission Determination

The Commission Panel has reviewed the Application and related Information Request responses with respect to the Transmission and Stations sustaining listed above, and has considered the health, safety, regulatory, operational and financial impact of the projects. With the exception of projects 24, 25, 32, and 37, discussed below, the Commission Panel determines that the projects listed are approved as part of the FortisBC CEP.

20 and 27 Line Rebuilds, Projects 24 and 25

FortisBC states that these projects are required to maintain service reliability for customers in the Trail, Waneta, Montrose, Fruitvale and Salmo areas (Project 24) and the Nelson, Whitewater, Ymir and Salmo areas (Project 27), and notes that detailed engineering studies were undertaken, with the conclusions that both the lines were in 'relatively poor condition' (Exhibit B-1, pp. 62, 63).

The scope for both projects includes the following:

- Replace an estimated 194 and 111 transmission poles (Lines 20 and 27 respectively) and hardware due to condition and clearance issues between transmission and/or distribution circuits and the ground;

- Replace crossarms, replace insulation and reframe several other structures where pole condition is deemed to be satisfactory; and
- Upgrade deficient anchoring as determined during the pole installation process.

(Exhibit B-2, BCUC 1.44.1, 44.2)

Commission Determination – Projects 24 and 25

The Commission Panel has reviewed the Application and related Information Request responses with respect to the Line 20 and Line 27 Rebuild projects, and understands that the projects will include elements of reconductoring, particularly within the original copper conductor sections of the lines. The Commission Panel takes note of the recent denial of the Copper Conductor Replacement Project application in Order G–165–08 and notes that there has been no evidence in this Application which supports any departure from the determinations in that Order and the related Reasons.

The Commission Panel further notes that FortisBC has an additional thirteen Transmission Line Condition Assessment Projects proposed for 2009 and 2010, with the number of poles included in all the lines totalling 1,215 in 2009 and 1,475 in 2010, a total for the two years of 2,690 poles (Exhibit B-1, p. 60). The Commission Panel considers that an order of magnitude estimate of the scope and costs of the projects arising from the 2009 and 2010 Assessment Projects discussed above could reasonably be extrapolated from the current cost estimates for the lines 20 and 27 projects. Such an extrapolation would likely result in total for all these projects well in excess of the \$20 million threshold for a CPCN application requirement. The Commission Panel also considers that a longer term planning horizon for significant capital expenditures is necessary in order to facilitate balancing those expenditures with rate impact stability.

The Commission Panel determines that the Line 20 and Line 27 Rebuild projects are denied as part of the Application and are to be deferred and included in a future CPCN application which would encompass an overall strategic plan for future transmission line rehabilitation projects, including a ten year planning horizon and a rolling two year capital expenditure plan.

The Commission Panel considers that the following extract from the Copper Conductor Replacement Project, adapted to this Application, is applicable to the proposed Line 20 and 27 Projects.

“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.” (Exhibit B-1, p. 27)

The Commission Panel notes that FortisBC has reduced its Transmission Line Urgent Repairs project by \$50 thousand per year for 2009 and 2010, and determines that \$50 thousand should be restored to that budget for those years in recognition of the denial of the Line 20 and 27 Rebuild projects.

Transformer Load Tap Changers Oil Filtration Project 32

This project involves installing permanent oil filtration systems on three transformer load tap changers in 2009 and 2010 to reduce carbon build up in the oil. FortisBC submits that the oil filtrations systems will extend the life of the transformer and lengthen the cycle time for the maintenance required for the tap changers (Exhibit B-1, p.69).

Commission Determination – Project 32

The Commission Panel considers that there is insufficient support in evidence to warrant approving this project at this time. The project is therefore deferred pending additional evidence in a future filing with respect to alternatives such as increasing the frequency of filtration and/or obtaining external sources for such services.

Joe Rich Transformer Protection Upgrade Project 37

FortisBC states: “This project is required to maintain service reliability for the customers in the Joe Rich area, southeast of Kelowna, and to minimize public and employee safety issues associated with transformer failure. In 2010 the Company plans to upgrade the protection on the 20 MVA Joe Rich Transformer 1 which is currently equipped with high side fuses. This is the only 138 kV transformer in the FortisBC system protected by high side fuses.” (Exhibit B-1, p. 73). Fortis also comments that this transformer has been protected by fuses since the substation was first constructed in 1993, and that there is no formal copy of a FortisBC standard available (Exhibit B-2, p. 117).

Commission Determination – Project 37

The Commission Panel considers that there is insufficient support to approving this project at this time, particularly when considering that the substation was constructed as recently as 1993. The project is therefore deferred pending additional evidence in a future filing supporting the need for the project.

4.0 DISTRIBUTION

4.1 Distribution Growth & Sustaining

The Application includes distribution growth and sustaining projects with estimated expenditures totalling \$28.2 and \$33.8 million in 2009 and 2010 respectively, and total project costs \$62.0 million as listed in the following table.

Table 6Table 4.1
Distribution Projects Expenditures

		Previously Approved	2009 Total	2010 Total
			(\$000s)	
1	GROWTH			
2	New Connects - System-wide		9,788	10,670
3	Distribution Growth Projects			
4	Glenmore -New Feeder		788	
5	Airport Way Upgrade Feeder			1,551
6	Hollywood Feeder 3- Sexsmith Feeder 4 Tie			365
7	Christina Lake Feeder 1 Upgrade		608	489
8	Beaver Park-Fruitvale Tie			1,227
9	Small Growth Projects 1. Oliver Feeder 1 New Regulator			137
10	Unplanned Growth Projects		974	994
11	TOTAL GROWTH		12,158	15,433
12	SUSTAINING			
13	Distribution Sustaining Programs and Projects			
14	Distribution Line Condition Assessment		599	667
15	Distribution Line Rehabilitation		3,124	3,470
16	Distribution Right-of-Way Reclamation		621	646
18	Distribution Pine Beetle Hazard Allocation		722	551
19	Distribution Line Rebuilds		1,178	1,167
20	Small Planned Capital		668	747
21	Forced Upgrades and Line Moves		1,255	1,461
22	Distribution Urgent Repair		1,911	1,805
23	PCB Program	G-52-05	1,073	1,117
24	Aesthetic and Environment Upgrades	G-58-06	100	100
25	Copper Conductor Replacement Program	CPCN	4,798	6,586
26	TOTAL SUSTAINING		16,049	18,317
27	TOTAL		28,207	33,750

(Exhibit B-1, p. 78)

Commission Determination - Distribution Growth and Sustaining Projects

As with the other Application project categories, the Commission Panel has reviewed the Application and related Information Request responses with respect to distribution growth and sustaining projects and has considered the health, safety, regulatory, operational and financial impact of the projects. With the exception of projects 7, 23, 24, and 25, discussed below, the Commission Panel determines that the projects listed are to be approved as part of the FortisBC CEP Application.

Christina Lake Feeder 1 Capacity Upgrade – Project 7

In its Application, FortisBC states:

“The project is required to supply the necessary capacity to service customers at the appropriate voltage levels and to maintain reliable service to FortisBC customers in the Christina Lake area. ...The feeder is approximately 12 kilometres long and sections have been reconducted to No. 266 ACSR with the remainder primarily No. 6 copper conductor which supplies the east side of the lake. System planning studies indicate that the Christina Lake Feeder 1 is experiencing end-of-line voltages below standard voltage level criteria of 113 volts during peak periods of the year in both the summer and winter. This project ... involves reconducting approximately 5 kilometres of No. 6 copper conductor and load balancing the feeder to ensure all customers are supplied with acceptable voltages. In addition to providing appropriate voltages levels to customers, this project supports the Company’s safety and reliability objectives by removing deteriorated copper conductor from the system.” [Exhibit B-1, p. 83]

In response to an Information Request from the Commission with respect to the frequency and duration of voltage sags, FortisBC referred to results of its distribution models. No empirical data was submitted in support of the response (Exhibit B-2, BCUC 1, p. 127). In the Justification Document addressing this project, it is noted that the advantages of the project are that it addresses voltage issues and eliminates the copper conductor, the disadvantage being that it has a higher cost than the alternative discussed. The alternative project also addresses voltage issues, at

a lower cost, but is described as not addressing the copper conductor, resulting in requiring additional Option 1 costs as part of the Copper Conductor Replacement Program. (Exhibit B4, BCUC 2, Appendix A112.1, p. 147)

Commission Determination – Project 7

FortisBC's Copper Conductor Replacement Program was the subject of a CPCN Application which was denied by Order G-165-08. The Commission Panel determines that the Christina Lake Feeder 1 Upgrade project is denied as proposed as there is a more cost effective alternative available and a significant component of the justification for the project relates to copper conductor replacement which has been addressed by the Commission in the above cited Decision.

PCB Program – Project 23

FortisBC notes that: "This project was previously approved by Commission Order G-52-05...[and that] [t]his project which began in 2005 is expected to be completed in 2010" (Exhibit B-1, pp. 97, 98). In responding to an Information Request, FortisBC refers to annual escalation rates of 5 percent for as spent dollars to 2009, a contingency of 15 percent and further inflation of 5 percent in 2010 and the possibility that less than 70 percent of the work is complete. FortisBC provides no further analytical or empirical data in support of these assumptions. (Exhibit B-4, BCUC 2, p. 143)

Commission Determination – Project 23

The Commission Panel does not accept the underlying assumptions in FortisBC's response to the above noted information request, and considers that the use of a 5 percent inflation/escalation factor is unsupported. The Commission Panel further considers that invoking both a 15 percent contingency, together with the unsupported consideration that the project may not be 70 percent complete, is a duplication. In the event that the project is, in fact, not 70 percent complete, the question arises as to how the project would be completed in 2010. The Commission Panel directs

that the expenditures on this project be capped at \$700 thousand per year for 2009 and 2010, and that, should additional funds be required to complete the project, a report comparing the original and as completed to date scope and costs of the project be provided to the Commission for review before any further funds are expended.

Aesthetic and Environment Upgrades – Project 24

This project involves FortisBC sharing the cost, with local governments, to upgrade its distribution facilities beyond FortisBC's standards (Exhibit B-1, p. 98).

FortisBC states, with respect to this project: "...the Company has considered the possible deferral of two projects... The second is the Aesthetic and Environmental Upgrade Program... The program has had limited uptake, and in this instance, FortisBC proposes to remove the estimate from the Capital Plan..." (Exhibit B-4, BCUC 2.151.5.22, 151.7)

Commission Determination – Project 24

The Commission Panel has considered the FortisBC comments and determines that the expenditures for this program are to be reduced to \$nil for the years 2009 and 2010.

Copper Conductor Replacement Program – Project 25

As noted previously, this project was the subject of a CPCN Application which was denied in Order G-165-08. No further determination or approval is required or given in this Application.

5.0 TELECOMMUNICATIONS, SCADA AND PROTECTION & CONTROL

The Application for growth and sustaining components for Telecom, SCADA, and Protection & Control projects forecasts expenditures totalling \$2.2 and \$2.2 million in 2009 and 2010 respectively, and total project costs estimated at \$6.4 million as listed in the following table.

Table 7

Table 5.1
Telecom, SCADA, and Protection and Control Projects Expenditures

		CPCN Approved	Expenditures to Dec 31\08	2009	2010	Future ¹	Total
			(\$000s)				
1	GROWTH						
2	Distribution Substation Automation Program	C-11-07	1,982	1,338	1,438	1,621	6,379
3	SUBTOTAL GROWTH		1,982	1,338	1,438	1,621	6,379
4							
5	SUSTAINING						
6	Harmonic Remediation			117	119		
7	Protection Upgrades			448	508		
8	Communication Upgrades			299	111		
10	SUBTOTAL SUSTAINING			864	738		
11	TOTAL		1,982	2,202	2,176	1,621	6,379

¹ Future expenditures for ongoing sustaining programs have not been included in these tables (Exhibit B-1, p. 101)

Commission Determination

As with the other Application project categories, the Commission Panel has reviewed the Application and related Information Request responses with respect to distribution growth and sustaining projects and has considered the health, safety, regulatory, operational and financial impact of the projects. The Distribution Substation Automation Program project was approved by the Commission in Order C-11-07, following the hearing of a CPCN Application. No further determination or approval is required or given in this Application with respect to that project. With the exception of project 6, discussed below, the Commission Panel determines that the remainder of the projects listed are to be approved as part of the FortisBC CEP Application.

Harmonic Remediation – Project 6

FortisBC states: “This project provides for investigating and resolving harmonic problems as they arise. FortisBC’s experience with harmonic difficulties is that they arise periodically and typically need to be investigated, although only infrequently mitigated. Investigation involves installing test equipment for a period of time, then engaging a consultant for detailed analysis.” (Exhibit B-4, BCUC 2, Appendix 112.1, p.187)

Commission Determination – Project 6

The Commission Panel has considered the FortisBC Application and information request response with respect to this proposed project (Exhibit B1, p. 102 and Exhibit B2, BCUC 1.74.0) and determines that expenditures of this nature are not appropriate to include in the Capital Expenditure Plan, but rather are more appropriately considered as operating and ordinary maintenance expenses, except only to the extent that significant investment in plant and equipment is required to resolve a problem. In such an event, established capitalisation policies should be applied to the accounting treatment for the expenditure.

6.0 DEMAND SIDE MANAGEMENT

In its Application, FortisBC includes the following in its description of the Demand Side Management (“DSM”) component of the Capital Expenditure Plan:

“Demand Side Management (“DSM”) or energy efficiency programs have been offered to FortisBC customers since 1989. DSM Programs are listed in the Company’s filed tariff and approved by the Commission. The DSM programs meet the economic test of costing less than the avoided cost of delivered power. The programs are available to all customers served by FortisBC and its wholesale customers of Grand Forks, Kelowna, Nelson Hydro, Penticton, and Summerland.

DSM expenditures of \$3.7 million (\$2.6 million net of tax) in 2009 and \$3.9 million (\$2.8 million net of tax) in 2010 are planned. The DSM initiatives that comprise the FortisBC PowerSense program provide information, co-fund engineering studies and provide incentives (grants or loans) towards energy conservation purchases and projects undertaken by customers. FortisBC offers financial incentives to the Residential, General Service, and Industrial customer classes for energy efficiency upgrades beyond baseline technologies for both existing facilities as well as for new construction enhancements.”

“The completion of these projects supports the Provincial Government’s energy objectives, including the objective: (b) to encourage public utilities to take demand-side measures.” (Exhibit B-1, p. 106)

FortisBC’s proposed expenditures for DSM are summarised as follows:

Table 8

Table 6.1

Demand Side Management Expenditures

		2009 Total	2010 Total	Total
		(\$000s)		
1	Nominal Cost	3,668	3,952	7,620
2	Tax Effect	(1,155)	(1,245)	(2,400)
3	Net Cost	2,513	2,707	5,220

(Exhibit B-1, p. 107)

“Expenditures in 2009 and 2010 are planned to exceed 2008 spending. This decision reflects the major shift in provincial policy that places demand side management as the priority resource to meet growing electricity demand in BC. The Energy Plan and the Utilities Commission Amendment Act 2008 (Bill 15) will require utilities to increase the acquisition rate of DSM resources. (Exhibit B-1, p. 107)

Fortis also comments:

“FortisBC is preparing a long-term Strategic DSM Plan for filing with the BCUC by the end of 2008. The Strategic DSM Plan will provide and build upon the programs outlined for 2009 and 2010, which are a mix of sustained growth in existing programs, customer education and new program development.” (Exhibit B-1, p. 109)

Commission Observations and Determinations

The Commission Panel recognises that the changes to the DSM projects proposed by FortisBC are, as a practical matter, a ‘work in progress’ as the company develops changes and new initiatives in response to the Provincial Government’s energy objectives and related recent legislation and regulations. The Commission Panel also notes that the Demand-Side Measures Regulation B.C. Reg. 326/2008 will become applicable to FortisBC effective June 1, 2009.

The Commission Panel has reviewed and considered the FortisBC DSM proposals, including the development of a long-term Strategic DSM Plan. The Commission Panel accepts and approves the DSM project component of the Capital Expenditure Plan for 2009 and 2010.

The Commission Panel notes that the Company’s Application does not specifically address the development of time of use and similar rate structure and other peak shaving initiatives which would support any future advanced metering infrastructure or similar programs.

7.0 GENERAL PLANT

Table 9

Table 7.1
General Plant Expenditures

	General Plant	CPCN filed	Expenditures to Dec 31\08 ¹	2009	2010
			(\$000s)		
1	Vehicles			1,326	2,868
2	Advanced Metering Infrastructure	Dec. 19, 2007	568	16,492	20,240
3	Metering Changes to Uninstalled Meter Inventory			526	559
4	Information Systems			5,167	4,499
5	Telecommunications			105	106
6	Buildings			3,248	1,981
7	Furniture and Fixtures			347	393
8	Tools and Equipment			572	575
9	TOTAL		568	27,783	31,221

¹ All forecast figures are based on forecasts as of April 30, 2008.

(Exhibit B-1, p. 116)

Commission Determination

As with the other Application project categories, the Commission Panel has reviewed the Application and related Information Request responses with respect to General Plant project proposals, and has considered the health, safety, regulatory, operational and financial impact of the projects. With the exception of the Buildings projects discussed below, the Commission Panel determines that the projects listed are approved as part of the FortisBC CEP Application. The Advanced Metering Infrastructure project was the subject of a CPCN Application which was denied in Commission Order G-168-08, and accordingly no further determination is required or given in conjunction with this Application.

Buildings – Project 6

The FortisBC Facilities Upgrade Project for buildings is described at pp. 128, 129 of Exhibit B-1, with details of the facilities provided at Exhibit B-2, pp. 169-171.

Commission Determination – Project 6

The Commission Panel acknowledges the need for periodic upgrades and/or improvements to the Company's facilities, but considers that the program outlined should be scheduled over a longer period of time.

The Commission Panel specifically approves the estimated \$350 thousand Facility Emergency Project for inclusion in the 2009 expenditures. The Commission Panel directs FortisBC to compile a schedule for the remainder of the Buildings projects components which schedules them over a minimum five year period, commencing in 2009, for review and approval by the Commission. The projects should be ranked and scheduled giving recognition to their respective urgency and importance, with primary emphasis on health and safety, regulatory requirements of various authorities, security of assets and system reliability and operating efficiency. The expenditures should be leveled to the extent practical. The report should be filed within 90 days of the date of this Decision.

8.0 OTHER MATTERS

8.1 Capitalisation Policy

The Commission Panel considers that the capitalisation policies of FortisBC should be reviewed periodically. The Commission Panel is of the view that such a review is appropriate in light of the capital expenditure programs undertaken by the Company, new technologies being introduced to the industry, inflationary factors and the recent changes in legislation and related regulations. Accordingly, the Commission Panel directs FortisBC to prepare and file with the Commission a report detailing the current capitalisation policies of the Company, including expenditures for new plant and equipment, and replacements and/or rehabilitation of existing capital assets. The report should also include references, where applicable, to industry and technical standards and rationale for any Company deviation from those standards together with any recommendations for policy changes where considered appropriate. The report is to be filed within 90 days of the date of this Decision.

8.2 System Development Plan

FortisBC System Development Plan Update

As noted earlier, FortisBC included its 2009 SDP Update with the Application, although no order is sought with respect to that plan.

FortisBC prepared and filed its original SDP for the period 2005 to 2024 together with its Capital Plan for 2005 at the same time and together with its 2005 Revenue Requirements Application. At that time, FortisBC indicated that the SDP and Capital Plan were being filed to comply with the requirements of s. 45 of the UCA. The SDP was initially filed to meet the requirements of s. 45(6) of the UCA which states: "A public utility must file with the commission at least once each year a statement in a form prescribed by the commission of the extensions to its facilities that it plans to construct."

The 2005 Capital Plan was filed to meet FortisBC's obligations pursuant to s. 45(6.2) (a) and (b), which subsections were subsequently repealed in May, 2008.

FortisBC then revised its 2005 Application and confirmed that it was not seeking an order for the SDP, only the Capital Plan, but also noted that "although they were not seeking approval, the System Development Plan needs to be considered when evaluating the Capital Plan (T3:345)" (FortisBC 2005 RRA Decision May 31, 2005, p.56).

As noted in the 2005 RRA Decision (supra), "[t]he System Development Plan is a long range planning document for capital expenditures on the transmission and distribution system. It considers a 20-year time frame for the transmission system and a 5-year time frame for the distribution system and was preceded by the 1998 Master Plan. Although the time frame for the report is 20 years, the majority of expenditures are anticipated to occur in the next five years. The total transmission and distribution capital forecast for the first five-year period is in excess of \$400 million (Exhibit B-1, Tab 9, p.19)."

As noted in the Executive Summary of the SDP, the Commission Panel in the 2005 Application discussed above, "encouraged FortisBC to treat this plan as a living document, to continue to consult with stakeholders and to keep the plan current as it evolves." (Exhibit B-1-1 p. 3)

The current SDP Update serves as a progress/status report as well as being a forward-looking document.

Items of particular note include: continued high load growth in the Okanagan region, increased expenditure levels beyond those previously anticipated for certain projects, most of which were subject to CPCNs, largely due to delays and scope changes.

The Commission Panel echoes the comments of the earlier Commission Panel in the 2005 Application and “commends the effort FortisBC has put forward” in keeping the SDP current. The Commission Panel encourages FortisBC to continue to treat this plan as a living document.

8.3 Rate Impacts

As an overriding condition of the approvals in this Decision, the Commission Panel directs FortisBC to ensure that the impact of the capital expenditures undertaken does not cause the 4.6 percent general rate increase included in the Settlement Agreement approved by the Commission in Order G-193-08 to be exceeded. The Commission Panel further directs FortisBC to file updated tables with the Commission reflecting the Determinations in this Decision. In the event that revisions to the priority and timing of the approved expenditures are required to avoid exceeding the 4.6 percent general rate increase, details of such revisions are to be reported to the Commission. This information is to be filed within 90 days of the date of this Decision.

DATED at the City of Vancouver, in the Province of British Columbia, this 27th day of February 2009.



A. W. KEITH ANDERSON
PANEL CHAIR



ALISON A. RHODES
COMMISSIONER



**BRITISH COLUMBIA
UTILITIES COMMISSION**

**ORDER
NUMBER G-11-09**

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IN THE MATTER OF
the Utilities Commission Act, R.S.B.C. 1996, Chapter 473

and

An Application by FortisBC Inc.
for Approval of 2009-2010 Capital Expenditure Plan
and Review of 2009 System Development Plan Update

BEFORE: A.W.K. Anderson, Panel Chair February 27, 2009
A.A. Rhodes, Commissioner

O R D E R

WHEREAS:

- A. On June 27, 2008 FortisBC Inc. ("FortisBC") filed its 2009-2010 Capital Expenditure Plan ("2009-2010 CEP") and 2009 System Development Plan ("SDP") Update and applied to the British Columbia Utilities Commission (the "Commission") for approval of the 2009-2010 CEP (the "Application"); and
- B. In the Application, FortisBC requested approval of its proposed capital expenditures for a two-year period as it did for its 2007/08 Capital Plan. The 2009-2010 CEP totals, as amended in the Reply Argument, approximately \$178.4 million for 2009 and \$180.7 million for 2010; and
- C. In the 2009 SDP, FortisBC's expenditures in the 2009-2010 timeframe increased from \$150.3 million as originally scheduled, to \$251.1 million in the 2009 SDP Update; and
- D. By Order G-109-08 the Commission established a Written Hearing Process and Regulatory Timetable for its review of the Application and also ordered that a Workshop be held in Kelowna, BC on August 12, 2008, with adequate notice to the public to be published in newspapers in the FortisBC service area; and
- E. The Written Hearing concluded with the Reply Argument of FortisBC dated and filed on September 29, 2008; and
- F. The Commission has reviewed the evidence and submissions of FortisBC and Registered Intervenors.

**BRITISH COLUMBIA
UTILITIES COMMISSION**

**ORDER
NUMBER G-11-09**

2

NOW THEREFORE the Commission approves the 2009-2010 CEP, as amended during the course of the proceeding, subject to specific determinations and directions as set out in the Decision issued concurrently with this Order.

DATED at the City of Vancouver, in the Province of British Columbia, this 27th day of February 2009.

BY ORDER



**A.W.K. Anderson
Panel Chair and Commissioner**