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BRITISH COLUMBIA UTILITIES COMMISSION

ORDER NUMBER G-8-06

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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
the 2006 Capital Budget Application

BEFORE: L.F. Kelsey, Commissioner
L.A. Boychuk, Commissioner

January 31, 2006

O R D E R

WHEREAS:

A. FortisBC Inc. ("FortisBC") filed its 2006 Capital Budget Application which contained the 2006 Capital Expenditures Plan ("CEP") and the 2006 System Development Plan ("SDP") update on August 16, 2005; and

B. In the CEP FortisBC is seeking an order that the CEP satisfies the requirements of Sections 45(6.2) (a)(b) and that the Capital Projects contained in the Tables 2.1, 3.1, 4.1, 5.1, 6.1, and 7.1 of the CEP are in the public interest; and

C. The Commission, by Order No. G-81-05, set down a written hearing process and regulatory agenda for the review of the Application; and

D. The Commission has considered the Application, evidence, and submissions of Intervenors and the Applicant.

…/2

NOW THEREFORE the Commission orders as follows:

1. The CEP meets the requirements of Section 45(6) and 45 (6.1)(a) of the Act.

2. FortisBC is directed to comply with all determinations and instructions set out in the Commission's Reasons for Decision attached as Appendix A to this Order.

DATED at the City of Vancouver, in the Province of British Columbia, this 31st day of January 2006.

BY ORDER

Original signed by:
L.F. Kelsey
Commissioner

Original signed by:
L.A. Boychuk
Commissioner

Attachment

FORTISBC INC.
2006 CAPITAL EXPENDITURES PLAN

REASONS FOR DECISION

1.0 INTRODUCTION

1.1 Application and Regulatory Process

FortisBC Inc. ("FortisBC", "the Company") filed an application for approval of its 2006 Capital Budget Application, which contained the 2006 Capital Expenditure Plan ("CEP") and the 2006 System Development Plan ("SDP") Update, (the "Application") on August 16, 2005. FortisBC is seeking an Order that the CEP satisfies the requirements of sections 45(6.2)(a)(b) and that the Capital Projects contained in the listed tables are in the public interest. The Commission, on September 7, 2005, and by order G-81-05, established a written hearing that concluded with the receipt of FortisBC's written responses to intervenor comments on October 27, 2005.

1.2 2005 Capital Plan and Decision

During its review of FortisBC's 2005 Capital Plan, the Commission found the 2005-2024 System Development Plan ("2005 SDP") to be helpful in assessing and prioritizing projects. In the resulting Order, the Commission commented that the rate impacts associated with the plan over the next 5 years may not be sustainable, and asked FortisBC to develop alternate scenarios that could delay the implementation of the Plan (May 31, 2005 Commission Decision, Section 3.2.5). The Commission also directed FortisBC to file CPCN applications for the Big White Supply, East Osoyoos Source, Kettle Distribution Source, and Distribution Substation Automation projects.

With respect to CPCN applications, FortisBC had proposed in its 2005 Capital Plan application that the following criteria be used to determine whether a project should be subject thereto:

1. The total project cost is $20 million or greater.
2. The project is likely to generate significant public concerns.
3. FortisBC believes for any reason that a CPCN application should proceed; or
4. After presentation of a capital plan to FortisBC stakeholders, a credible majority of those stakeholders express a desire for a CPCN application.

In the May 31, 2005 Commission Decision, the Commission agreed that it would be guided by these criteria, though in practice it would review each year's capital plan filing and determine with reasons which projects would require CPCNs.

2.0 2006 CAPITAL PLAN AND SDP UPDATE

2.1 Approvals Sought

In its Application, FortisBC requests an Order that the requirements of section 45(6.2) of the Utilities Commission Act have been satisfied and that the capital projects listed in Tables 2.1, 3.1, 4.1, 5.1, 6.1, and 7.1 of the CEP (with the exception of the AM/FM GIS Upgrade project included within the Information Systems item in Table 7.1) are in the public interest. The AM/FM/GIS Upgrade is to be the subject of a CPCN application.

2.2 Differences from the 2005 SDP

FortisBC notes that its 2006 Capital Plan is based on the 2005 SDP and that, while no formal approval of the 2005 plan was requested, it was extensively reviewed during the oral hearing for the 2005 Revenue Requirements Application. The 2005 Revenue Requirements Application was dealt with by Commission Order No. G-52-05. The 2005 SDP contained a forecast of 2006 expenditures on Transmission & Distribution and Telecommunications of $80.1 million, excluding Allowance for Funds Used During Construction ("AFUDC") and overheads. The forecast for 2006 expenditures, as contained in the 2006 Capital Plan, now totals $69.7 million excluding AFUDC and overheads (CEP, p. 4). FortisBC states that the decrease in expenditures results from more accurate cost estimates and changes in project timing. No new projects were added to the 2005 SDP.

The largest decrease ($11.8 million) in projected expenditures occurs in the Transmission Growth category. The reductions resulted from staging the Lambert and Princeton Substation projects over several years, the installation of temporary measures to defer the Castlegar and Crawford Bay substation capacity upgrades, the deferral of the Big White and 18 Line Breaker projects, and cost savings on the South Okanagan Reinforcement Project. These reductions are partially offset by shifting expenditures for the Kelowna Area Upgrade from 2005 to 2006.

The largest expenditure increases occur in the Information Systems and General Plant categories. The increases are $4.3 million and $4.2 million, respectively. The Information Systems increase is almost entirely due to two major hardware and software conversion projects, while the General Plant increase arises primarily from a lease-to-ownership conversion for vehicles and a proposed expansion of the Benvoulin Operations Centre in Kelowna.

The differences in proposed 2006 expenditures between the 2005 SDP and the 2006 Capital Plan are discussed in FortisBC's 2006 SDP Update and are summarized in the following two tables, which are derived from Tables 1.1 and 1.2 in the CEP.

Comparison of Expenditure Plans for T&D and Telecommunications
(AFUDC and loadings excluded)

Plant Component	2005 SDP	2006 Capital Plan	Change
Transmission Growth	49.9	38.1	(11.8)
Transmission Line Sustaining	2.9	4.9	2.0
Stations Sustaining	7.3	6.2	(1.1)
Distribution	15.6	16.5	0.9
Telecommunications	4.4	4.0	(0.4)
Totals	80.1	69.7	(10.4)

Comparison of Expenditure Plans for Generation, IS, DSM, and General Plant
(AFUDC and loadings included)

Plant Component	2005 SDP	2006 Capital Plan	Change
Generation	**17.8**	**15.9**	**(1.9)**
Information Systems	**1.5**	**5.8**	**4.3**
Demand Side Management	**1.2**	**1.4**	**0.2**
General Plant	**4.7**	**8.9**	**4.2**
Totals	**25.2**	**32.0**	**6.8**

2.3 Rate Impacts and the Alternate Development Schedule

Beginning on page 27 of its 2006 SDP Update, FortisBC sets out an alternate system development schedule. The alternate schedule was developed in response to Commission concerns raised in Order No. G-52-02 with respect to the rate impacts associated with FortisBC's proposed capital expenditures. The Commission suggested that "FortisBC should develop alternate scenarios that envision a perhaps less efficient plan but which would involve delaying capital expenditures" (Order No. G-52-05, p. 59).

The Commission's concerns with rate impacts were shared by Mr. Wait and the British Columbia Old Age Pensioners' Organization *et al.* ("BCOAPO"). Mr. Wait noted that, while FortisBC has a need to add capacity to match load growth and to replace aging equipment that is prone to failure, this work is resulting in rate increases in excess of inflation (Exhibit C1-3, p. 1). In its comments, BCOAPO noted the Commission's concern but submitted that, in view of the reliability risks and the minimal rate savings of the alternate schedule, the Commission should approve the SDP Update as submitted (Exhibit C3-2, p. 2). In FortisBC's view, the alternate schedule incorporates some project delays that, while undesirable, should not have unmanageable consequences for customer service, reliability, or safety in the short term (SDP Update, p. 28).

In reviewing the Application, the Commission did not consider that the alternate development schedule should be either approved or rejected. Rather, the schedule was treated as a contextual document that contained information useful to the Commission's review process, which evaluated each proposed project on its own merits. The Commission appreciates FortisBC's efforts to develop plans that can defer rate increases without compromising service or reliability, and expects that, to the extent it is prudent to do so, the Company will reflect the alternate schedule in future capital plans.

3.0 CAPITAL PROJECTS

3.1 Generation Sustaining Projects

3.1.1 South Slocan Unit 1

South Slocan Unit 1 would be the eighth generating unit in FortisBC's Upgrade and Life Extension ("ULE") Program, which began in 1997 (CEP, p. 12). The proposed project encompasses all activities required to replace or extend the life of all components of Unit 1, some of which date from the plant's original 1928 in-service date. As alternatives to the proposed project, FortisBC considered either running the unit to failure and then

mothballing it, or running the unit to failure and then performing repair and life extension work (Business Case 1 [attached as an appendix to the response to BCUC IR 1.0, Exhibit B-3], pp. 2-3). The first alternative would require the replacement of the unit's energy and capacity at an estimated long-term blended rate of $38/MWh, a figure that is substantially higher than the projected post-life-extension production cost of $16/MWh. The second alternative has a marginally lower NPV than the proposed project ($10,648,000 compared to $10,898,000), but the lower NPV is based on the assumption that the unit does not fail before 2010. Given that a forced outage would result in a purchased power (energy and capacity) expense some $3.5 million higher than in the planned-outage case (BCUC IR A2(1)), and given the advanced age of the unit, and condition assessments that show continuing deterioration, FortisBC does not believe it is prudent to plan for continued operation until 2010 (Business Case 1, p. 2).

Commission Findings

The Commission believes that the South Slocan Unit 1 ULE project provides value to FortisBC and its customers. It also accepts FortisBC's view that it would not be prudent to plan for continued operation of the unit through 2010 and, therefore, approves the project as submitted.

3.1.2 Other Generation Sustaining Projects

In addition to the South Slocan Unit 1 ULE, FortisBC submitted the South Slocan Pole Yard Remediation Project, the continuation of the Headgate Rebuilds Project, and various Small Generation Projects that have been identified based on safety, environmental, plant reliability, employee contributions, cost recovery and regulatory compliance assessment (CEP, pp. 12-17).

Commission Findings

The Commission approves these projects as submitted. The Commission also notes that FortisBC's 2006 Capital Plan includes ULE programs for Lower Bonnington Units 1 and 3, which were previously approved by the Commission.

3.2 Transmission and Stations Growth Projects

3.2.1 Ellison Distribution Source

This project involves the construction of a distribution source substation in the north end of Kelowna between Sexsmith Substation and FA Lee Terminal, together with a transmission tie to Duck Lake Substation and distribution ties into the existing distribution network (CEP, pp. 24-25). According to FortisBC, the project is required to increase the distribution capacity at the north end of Kelowna, which has seen, and will likely continue to see, rapid growth. The capacity limits of the existing Sexsmith substation could be reached as early as 2008, and failure of the single transformer would result in long outages for over 60% of the load normally fed by this substation, including Okanagan University and Kelowna International Airport (CEP, p. 24; Business Case 2, p. 8; BCUC IR 2(2)).

FortisBC states that the short term capacity limitations at Sexsmith could be addressed by adding a larger transformer at Sexsmith but determined that such a solution would not adequately address the emerging load in the University, North Glenmore, and McKinley areas. In addition, site redevelopment would be required at Lee Terminal Station. For the transmission connection to Ellison Substation, FortisBC considered alternatives to the proposed 138 kV line from Duck Lake (Business Case 2, pp. 9-10); however, both a tap from 46 Line west to Ellison and a 138 kV line from Sexsmith would be more expensive options.

In FortisBC's 2005 Capital Plan Application and the Commission's subsequent approval for the acquisition of land (Order No. G-52-05) for this project, the estimated total cost of the project was stated to be $8.25 million (2005 Capital Plan, Tab 9, p. 21). The Commission notes that the CEP now estimates the total cost for this project to be $11.7 million (CEP, Exhibit B-1, p. 25).

Commission Findings

The Commission notes the significant increase in estimated project costs from 2005 to 2006 and directs FortisBC to file a CPCN application for this project if FortisBC wishes to proceed.

3.2.2 Black Mountain Distribution Source

This project involves the construction of a distribution source substation in the Black Mountain area of Kelowna, together with a short transmission line and the related distribution feeder connections to tie the substation into the existing distribution network (CEP, p. 25). The facilities, which FortisBC states are required to address forecasted load growth in southeast Kelowna and to accommodate the switching requirements of 57 Line (which currently serves Joe Rich Substation and is planned to serve the proposed Big White Substation), are scheduled for construction in 2008 (BCUC IR 2(3)). Property acquisition, which was approved by the Commission in the May 31, 2005 decision (Order No. G-52-05) is in progress. The total cost of the project is estimated to be $9,775,000.

FortisBC noted that increasing capacity at Hollywood Substation, installing a separate distribution supply transformer at Lee, or building a new distribution source are options to serve the increasing load. Its shorter-term plan is to incorporate both the Hollywood capacity increase and the new distribution source into the system development plan (Business Case 3, p. 13). FortisBC notes that the Black Mountain source, in addition to serving an area where over 50 percent of the load growth is centred, would supply backup capabilities into the central Kelowna area currently served by the Hollywood Substation and would benefit the Big White Supply Project by creating a suitable location for the Big White transmission line.

In its reply to BCUC IR 2(3), FortisBC notes that a one-year delay of this 2008 project would require the construction of facilities—at a cost of $800,000—that would ultimately be stranded by the Black Mountain Source project. The savings associated with the one-year carrying cost is estimated at approximately $1,000,000. From a reliability perspective, a fault on 57 Line in the mountainous area of the Big White Ski Resort would cause transmission line outages at Joe Rich and possibly at FA Lee and DG Bell.

The Commission notes that the estimated total cost for this project has increased from $7.250 million in the 2005 Capital Plan to $9.5 million in the CEP.

Commission Findings

The Commission notes that the Black Mountain project is not required until 2008, that a one-year delay could result in a cost saving, and that facility and reliability links exist between Black Mountain and other projects (such as Big White). The Commission also notes that details on future Kelowna distribution upgrades will not be available “until the growth develops, as they are very location dependent” (BCUC IR 51.2(k)). Given these

factors and a desire by the Commission to better understand how the Black Mountain project fits into FortisBC's overall system development plan for the Kelowna area, **the Commission directs FortisBC to file a CPCN application for the Black Mountain project at its earliest convenience.**

3.2.3 Fault Level Reduction

System studies in 2004 determined that fault levels on the distribution buses at several Kelowna area substations are greater than the 150 MVA standard for FortisBC's 13 kV system and require remedial action—in the form of current-limiting reactors—to minimize the safety risk to employees and the general public (CEP, p. 25). The 2005 Capital Plan identified a cost of approximately $2,200,000 for the associated work and by Order No. G-52-05 the Commission approved the project. However, detailed engineering in 2005 identified that many substations have insufficient space for the additional reactors; consequently, either major reconfigurations or alternate solutions are required at some sites. FortisBC has implemented a number of interim measures, such as turning off auto-reclosers on affected circuits, and is in the process of engaging an external consultant to provide recommendations on mitigating the fault levels (BCUC IR 15). FortisBC now estimates the cost of this work to be a total of approximately $4,600,000 for 2005, 2006, and 2007.

Commission Findings

The Commission accepts FortisBC's view that the Fault level reduction project is necessary and, therefore, approves the continuation of the work. In view of the preliminary nature of the cost estimates and the current lack of detail on the proposed solutions, the Commission directs FortisBC to file the consultant's report with its next Capital Budget Application.

3.2.4 Naramata Rehabilitation

FortisBC identifies the Naramata Substation as one of the legacy stations requiring a rebuild at a new site due to deterioration of the equipment and station facilities, an inability to park the mobile substation at the existing site, and a lack of available property to accommodate further load growth (CEP, p. 26). FortisBC's plan is to replace the existing 5.6 MVA transformer with a new 20 MVA unit (Business Case 5, p. 17).

Commission Findings

The Commission notes that this project was approved by Order No. G-52-05. The SDP (p. 36) shows a load forecast for the Naramata Substation that suggests a 2010 loading of 8,775 kVA and an ultimate loading of 10,430 kVA. The Commission expects that if FortisBC has an opportunity to reduce the size of the transformer to match the ultimate loading and save costs as a result, that it will do so and advise the Commission accordingly.

3.2.5 Princeton Substation Capacity Increase

FortisBC proposes to replace two 63/13 kV transformers at the Princeton Substation with 138/25/13 kV units, and to remove the 138/63 kV step-down transformer (CEP, pp. 27-28). The project would be implemented in two stages. The first (2006) stage would see the replacement of transformer T1, which is not fully functional due to deterioration of its on-load tap changer and which is capable of supplying only 65 percent of the peak load at this station. In the second stage (2009/11), the step-down transformer (T2) would be removed and the other distribution source transformer (T3) would be replaced.

Commission Findings

The Commission accepts that it is prudent to replace T1 in 2006 and, therefore, approves the first stage of the Princeton project at an estimated cost of $4,500,000. However, it is not obvious to the Commission that the second stage of the project should be approved at this time. FortisBC stated in its 2006 SDP Update (p. 31) that delaying the installation of the second transformer beyond 2011 would only delay incremental reliability gains. **Therefore, the Commission expects that FortisBC will seek further approval before proceeding with the second phase of this project.** It would be helpful if, in its future submission (if any), FortisBC were to quantify the operational and reliability benefits associated with the second stage.

3.2.6 Lambert Substation Transformer Installation

This project involves the installation of a second 230/63 kV transformer and (possibly) a future 230 kV ring termination at AA Lambert Substation, which supplies the Creston and Wyndell areas. An outage on the existing 230/63 kV transformer will result in load curtailments because the remaining 30 Line and 32 Line source can back up only 18 MVA of the 30 MVA load. FortisBC states that, under extreme conditions, rotating outages could span several days since the Company has no mobile transformer capable of supplying 230/63 kV transformation (CEP, p. 29).

Commission Findings

The Commission notes that, while the probability of failure of the existing 230/63 kV transformer is low (BCUC IR 2(5)), the consequences of failure are high, possibly involving several days of rotating outages for a significant number of customers. **Consequently, the Commission accepts that the Lambert project is consistent with sound utility practice and is in the public interest and should be approved.**

3.2.7 Ymir/Whitewater Upgrade (Cottonwood Substation)

This project involves the construction of a new substation (Cottonwood) in the Ymir/Whitewater area to accommodate load growth and allow the removal of the existing Whitewater and Ymir substations, both of which fail to meet current engineering and clearance standards, are nearing the end of their service lives, and are becoming safety risks (CEP, p. 29; Business Case 8, p. 26; BCUC IR 18). FortisBC notes that the customers served by these two substations have experienced significantly worse than average reliability (BCUC IR 2(6)).

Commission Findings

The Commission accepts FortisBC's submission that the Ymir and Whitewater Substations are nearing the end of their useful service lives and are in need of replacement. **The Commission, therefore, approves this project as submitted.**

3.2.8 Other Projects

East Osoyoos

Mr. Wait commented that now would be an appropriate time to convert the Pine Street and East Osoyoos Substations to 138 kV if it is anticipated that a 138 kV system would be needed in the future (Exhibit C1-3, p. 1). FortisBC replied that the current load forecast does not support a change to 138 kV, and noted that a CPCN application for the Nk'Mip project has been filed (Exhibit B-4, p.2).

Boundary Conversion

Mr. Wait expressed a concern with the high annual revenue requirement per MWh of delivered energy for the Boundary Conversion and suggested that FortisBC's forecasts appeared to be optimistically high (Exhibit C1-3, p. 2). With respect to the high cost per MWh, FortisBC replied that the area is sparsely populated and therefore relatively expensive to serve on a per-customer basis. FortisBC did not directly address Mr. Wait's comment on the load forecast, but noted that it has filed a CPCN application for the Kettle Valley project (Exhibit B-4, p. 2).

11 Line

Based on FortisBC's response to Wait IR 15, Mr. Wait suggested that there was a requirement for 11 Line to be able to transfer power to the Okanagan in the event of an N-1-1 contingency, and that it did not make sense to change the line's voltage to 138 kV because the requirement for back-up power would increase over time (Exhibit C1-3, pp. 2 & 3). In reply, FortisBC stated that it does not plan on an N-1-1 basis for the Boundary area or Oliver. FortisBC also stated that, when energized at 138 kV, 11 Line will be capable of supplying the Boundary area and Oliver for the foreseeable future. Further, with the commissioning of Vaseux Terminal, there is no requirement for the transfer of power from the Kootenays to the Okanagan on 11 Line.

Commission Findings

The Commission accepts FortisBC's responses to Mr. Wait's concerns, subject to any further review that may arise from the Nk'Mip and Kettle Valley CPCN applications.

3.3 Transmission and Stations Sustaining Projects

3.3.1 32 Line Rehabilitation and Other Sustainable Projects

FortisBC has approximately 45 transmission lines consisting of 1,560 km of line and approximately 16,000 poles. FortisBC states that approximately 65 percent of these lines are more than 30 years old and that the transmission line generating projects are required for rehabilitation and ongoing upgrades of the transmission system to ensure safe, reliable service.

The 32 Line Rehabilitation project involves the structural replacement (including poles, cross-arms, and all attached hardware) of 32 Line, a 63 kV line from Crawford Bay to Wynndel to A. A. Lambert Terminal Station (CEP, p.33). A detailed patrol of the line in 2003 showed that, despite recent rehabilitation work, there were three structures that required urgent attention due to cross-arm failures (Business Case 10, p. 31). Alternatives to this project, including a "do nothing" approach and a four-year stabilization program, were rejected by FortisBC because of the risk of injury to employees or the public, or of property damage, as a result of structural failure (Business Case 10, p. 32).

Commission Findings

The Commission considers that this project is in the public interest and that it should be approved.

Having reviewed the Application and the evidence submitted by FortisBC with respect to other sustaining projects, **the Commission finds that the following projects are in the public interest and, therefore, approves them:**

- **Transmission Line Urgent Repairs**
- **Right of Way Enhancements**
- **Right of Way Reclamation**
- **Transmission Line Condition Assessment – Life Extension**
- **Transmission Line Rehabilitation**
- **Switch Additions**
- **Station Assessment and Minor Planned Projects**
- **Ground Grid Upgrades**
- **Station Urgent Repairs**
- **Bulk Oil Breaker Replacement**
- **Transformer Oil Replacement**
- **Transformer Load Tap Changers Oil Filtration**
- **Westminster Transformer (T1) Rehabilitation**

3.3.2 Pine Street Transformer Replacement

FortisBC has proposed to replace transformer T1 at Pine Street Substation in Oliver (CEP, pp. 43-44). According to FortisBC, high levels of acetylene and ethylene gas have been detected, indicating that the transformer is subjected to severe operating conditions and that the cellulose paper insulation has been degraded. In addition, two of the HV bushings are leaking, oil quality is poor, the tap changer is in need of replacement, and loading constraints must be imposed due to overheating problems.

Commission Findings

The Commission accepts that T1 should be replaced, and therefore approves this project.

3.4 Distribution Growth Projects

3.4.1 DG Bell to OK Mission Tie

This project is estimated to cost $1.1 million and involves the construction of a feeder tie between the DG Bell #2 and OK Mission #3 feeders so that the latter can provide a higher level of backup to the former (Business Case 14, p. 46). If the DG Bell transformer fails, its backup facilities can only serve 82 percent of the peak load.

Commission Findings

In its response to BCUC IR 2(10), FortisBC stated that this is a reliability project to meet the planning criteria that, following an N-1 contingency, 80 percent of the load will continue to be served. FortisBC also stated that there are no additional costs associated with a forced delay of this project, that the reliability impacts would be outages to an additional 10 percent of the customers served by the DG Bell Substation for approximately 24 hours, and that the probability of a catastrophic failure of the DG Bell transformer is low. FortisBC estimated that the one year carrying cost of this project is $110,000. **In view of these facts, the Commission believes that although this is the type of project that can reasonably be deferred to help mitigate increases in the revenue requirement, the saving in deferring the project is low. The Commission, therefore, approves this project. The Commission is also aware that many of these types of projects can affect revenue requirements and, therefore, directs FortisBC to identify in its next capital plan filing projects like the above which can or have been deferred to help mitigate capital plan expenditures.**

3.4.2 Playmor-Tarrys Feeder Upgrade

This project involves the transfer of residential load on the Tarrys Substation to the Playmor Substation to alleviate power quality problems and the overloading of the Tarrys distribution transformer (Business Case 15, p. 48). The Tarrys Substation would then be dedicated to serving the existing sawmill load. FortisBC stated (BCUC IR 2(11)) that a delay in the project could lead to irreparable damage to the Tarrys transformer, and that the associated cost would exceed $1,000,000 since a new transformer would be required.

Commission Findings

The Commission supports FortisBC's proposed solution to the power quality and overloading issues at Tarrys and, therefore, approves the project as proposed.

3.4.3 Other Projects

Commission Findings

The Commission approves the following Distribution Growth projects as submitted:

- **New Connects**
- **Paterson 25 kV Feeder**
- **Planned and Unforeseen Capacity Additions**

3.5 Distribution Sustaining Projects

3.5.1 Distribution Pole Condition Assessment and Rehabilitation; Small Planned Capital

FortisBC's distribution line assessment program is based on an eight-year cycle of patrolling and testing all of the company's distribution line facilities. Pole testing and treatment extends the life of the poles and ensures the integrity of the lines as well as public and employee safety (CEP, pp. 50-51). The Small Planned Capital program is similar to the Distribution Pole Condition Assessment and Rehabilitation Program, but it captures off-cycle work arising from the identification of operational and safety concerns between the eight-year condition assessment cycles (CEP, p. 54).

Commission Findings

The Commission supports both the Pole Condition Assessment and Rehabilitation Program and the Small Planned Capital Program and, therefore, approves them. The Commission is, however, concerned about the very sharp rise in program costs for 2006 over previous years. In its response to BCUR IR 32.1, FortisBC explained that the increase in the Pole Condition Assessment and Rehabilitation Program is the result of the volume of deficiencies identified during the 2005 condition assessment program. The Commission expects that FortisBC will, starting with its next Capital Plan Application, provide the Commission and stakeholders with evidence that the increased testing and treatment program is lowering costs, or will ultimately lower costs, is improving reliability, or both. With respect to the increase in the Small Planned Capital program, FortisBC explained that the increase from 2005 to 2006 resulted from proposed changes to FortisBC's Capitalized Overhead policy. The proposed policy will be further discussed in FortisBC's 2006 Revenue Requirements Application (BCUC IR 35.1).

3.5.2 Distribution Line Rebuilds

FortisBC advises that certain distribution line rebuilds are required to address specific safety and/or reliability deficiencies on the distribution system (CEP, pp. 53-54). The deficiencies are identified by FortisBC through site assessments and normal day-to-day operations.

Commission Findings

The Commission accepts the need for distribution line rebuilds as a necessary part of maintaining system reliability. The Distribution Line Rebuilds Project is, therefore, approved.

While the Commission accepts that the proposed rebuilds are necessary, it would appreciate having a better understanding of the process FortisBC uses to select which feeders to work on. The process was explained to some extent in the utility's 2005 SDP (pp. 4-6), which set out six factors that drive capital projects. These factors include safety and reliability, and in Table 4.10 on p. 54 of the Application, FortisBC listed either one or both of these factors as drivers for each of the proposed rebuilds. In its response to BCUC IR 34.1, FortisBC provided a table of SAIDI and SAIFI values for those feeders whose rebuilds are driven by reliability.

In the Commission's view, it is not wholly apparent from Table 4.10 or BCUC IR 34.1 whether the selected feeders should be rebuilt. For example, in 2004, W305S-OKM2 had one outage and SAIDI and SAIFI values of zero, while W222S-BLU1 had two outages and SAIDI and SAIFI values of 0.03 and 0.02, respectively. These values are better than the 2004 average distribution SAIDI and SAIFI values (see Tab 10.2 in the 2005 SDP). In the case of W258S-CSC1, there were significant changes in the indices from 2003 to 2004, and it is not clear whether the variation is within the bounds of what would be considered normal. Finally, the Commission notes substantial year to year variation in expenditures under this program (CEP, p. 53). The Commission expects FortisBC to file additional reliability information in the next Capital Budget Application. This should make the next feeder selections somewhat more clear.

3.5.3 Other Projects

Having reviewed the Application and the evidence submitted by FortisBC, the Commission accepts that the following distribution projects are in the public interest and, therefore, approves them:

- **Distribution Right of Way Reclamation**
- **Small Planned Capital**
- **Forced Upgrades and Line Moves**
- **Distribution Urgent Repairs**
- **PCB Program.**

The Commission makes no ruling at this time on the Trail-Oliver High Capacity Communications Project because it is closely linked to the Kettle Valley Distribution Source Project, which is the subject of a CPCN application currently before the Commission.

3.6 Telecommunications, SCADA, and Protection & Control

3.6.1 Growth Projects

The Commission notes that both growth projects in this category, namely the Distribution Substation Automation and High-Speed Connection Trail to Oliver projects, are the subjects of CPCN applications (the latter in connection with the Kettle Valley Distribution Source). Consequently, the Commission makes no ruling here on whether these projects are in the public interest.

3.6.2 Sustaining Projects

The Commission has reviewed the evidence provided by FortisBC in this Application, and is satisfied that the Telecommunications, SCADA, and Protection & Control sustaining projects are in the public interest. The following projects are therefore approved as submitted:

- **Narrow Spectrum Conversion**
- **Harmonic Remediation**
- **Protection Upgrades and Fault Locating**
- **Communications Upgrades**

3.7 Demand Side Management

The Commission notes that FortisBC filed its planned 2006 Demand Side Management ("DSM") expenditures as part of its 2006 Revenue Requirements Application. The Commission will rule on the DSM capital expenditures in the context of that application, and therefore makes no ruling thereon in this proceeding.

3.8 General Plant

3.8.1 Vehicles

The Capital Budget Application contains an amount of $4,899,000 for vehicle expenses, which breaks down as follows (CEP, pp. 63-65):

Vehicle Expense Category	**Amount**
Upgrades and Overhauls	126,000
Replacements	2,612,000
Lease-to-Ownership Conversions	1,653,000
Additions	507,000
Total	**4,898,000**

In its Application, FortisBC states that replacements are required for 17 units that have either reached their planned lives or are becoming safety, reliability, or compliance risks. FortisBC also states that, after a review of leasing versus ownership, it determined that ownership offered the least-cost long-term option, with the purchased units offsetting annual leasing costs of $282,000. FortisBC further states that the vehicle additions are in response to increased capital workloads and a focus on safety.

Commission Findings

The Commission accepts FortisBC's view that the upgrades and overhauls, replacements, and additions are appropriate and, therefore, approves those projects. With respect to the lease-to-ownership conversions, the Commission notes that the evidence that there is a benefit to converting appears to be limited to FortisBC's statement (CEP, p. 64) that "In 2004, after a review of leasing versus ownership, it was determined that ownership offered the least-cost long term option." The Commission notes that FortisBC presented a lease versus purchase comparison in its 2005 Revenue Requirements Application (see Appendix 9, 2005 Capital Plan Appendices, Tab 9). However, in that comparison, the annual savings amounted to 36 percent of the capital cost, whereas in the current proposal the annual savings are only 17 percent of the capital cost (i.e., $282,000 per year against a capital cost of $1,653,000). Thus, based on the evidence, the Commission is unable to conclude that the lease conversion option is appropriate. **Therefore, the Commission denies the Lease to Ownership Conversion project subject to a re-analysis by FortisBC confirming a net benefit to its customers. FortisBC is to provide that analysis at the time of its next revenue requirements application.**

3.8.2 Information Systems

FortisBC's planned 2006 Information Systems expenditures are based primarily on sustaining the existing infrastructure, replacing existing systems to improve efficiency and customer service, and migrating existing systems from FortisAlberta (CEP, pp. 65-68). **Having reviewed the evidence presented in this proceeding, the Commission finds that the proposed Information Systems projects, with the exception of the AM/FM/GIS System Upgrade, are in the public interest and are therefore approved.** As FortisBC has indicated (CEP, p 68), FortisBC will be filing a CPCN application for the AM/FM/GIS System Upgrade project when it has completed the analysis for this project. Consequently, the Commission makes no ruling at this time with respect to that project.

The Commission notes that, in its response to BCUC IR 46.1, FortisBC indicated that it is actively re-evaluating the Business Software Solution business case due to recent changes to the SAP organization, cost, and functionality. FortisBC (Exhibit B-4, p. 3) supported BCOAPO's suggestion (Exhibit C3-2, p. 2) that an update could be provided during FortisBC's 2006 Revenue Requirements Application. **The Commission, therefore, requires that FortisBC inform the Commission when FortisBC has completed its evaluation of the options.**

3.8.3 Benvoulin Property Expansion

FortisBC's Transmission & Distribution operations in Kelowna currently use an Operations Centre on Benvoulin Road (containing office facilities, a material warehouse, a fleet shop, and an associated yard), a leased storage yard located off Springfield Road, and a leased pole yard located on Sexsmith Road (CEP, p. 70). Since 2001, the Operations staff count has grown from 73 to 101 and the number of customers served out of the Operations Centre has grown by approximately 7000. In addition, the forecast for capital construction supported from the Benvoulin site is three times what it was in 2001 (Business Case 19, p. 63). The increased volume of work managed from the site and a 30% growth in traffic volumes on Benvoulin Road have led to safety, efficiency, and security concerns. The property adjacent to the Operations Centre is for sale, and FortisBC proposes to acquire it to consolidate the Kelowna facilities at an estimated total cost of $3,200,000. FortisBC estimates that the cost of acquiring land at another site and constructing a new Operations Centre would cost more than twice as much as the proposed option.

Commission Findings

The Commission accepts FortisBC's submission that the current situation presents safety, efficiency, and security concerns. The Commission also accepts that a consolidation of the three facilities at the Benvoulin Road site would help alleviate those concerns, and notes that the project has the support of the BCOAPO (Exhibit C3-2, p. 2). **The Commission therefore approves the Benvoulin Property Expansion. The Commission also accepts the suggestion of the BCOAPO, which was agreed to by FortisBC (Exhibit B-4, p. 3), that the risk of the land not being removed from the Agricultural Land Reserve shall be borne by the shareholder.**

3.8.4 Other General Plant

The Commission approves the following General Plant capital items:

- **Changes to Uninstalled Meter Inventory**
- **Telecommunications**
- **Buildings**
- **Furniture & Fixtures**
- **Tools & Equipment**