



Preliminary 2010 Revenue Requirements

Appendix D

O&M Savings Report

1 Implementation of different projects within the capital plan can result in an increase,
2 decrease or have little to no effect on operating costs depending on the nature of the
3 work that is completed. Operating expenses are reduced as a result of projects that
4 remove significant amounts of old plant from service, resulting in reduced maintenance
5 costs. Operating expenses can also increase with various projects. When new plant is
6 added to meet load growth, it will be subject to ongoing maintenance activities and
7 therefore will add to ongoing future operating costs.

8 In cases of sustaining capital expenditures for improvements in operating standards,
9 safety and reliability, a material change in operating costs cannot always be expected.

10 Line loss reductions resulting from the capital program are built into the power supply
11 forecast annually, and are not included in the attached document as an operating
12 expense reduction.

13 **Transmission and Distribution:**

14 Typically, savings associated with transmission and distribution capital expenditures can
15 be attributed to plant removed from service. These savings may be offset by the
16 ongoing operating costs of the new plant put into service. For example, in 2007, the
17 Kettle Valley Project commenced and as a part of this project, two smaller substations
18 in Midway and Rock Creek have been decommissioned. The primary purpose of this
19 project was to improve reliability and safety related to plant operation. The removal of
20 old plant will partially offset increases associated with new facilities at the Kettle Valley
21 Substation, resulting in an increase of approximately \$20,000 annually in O&M costs.
22 Although the transformers are new, they will still require preventive maintenance and to
23 a lesser extent corrective maintenance.

24 Similarly, the Okanagan Transmission Reinforcement Project scheduled to be placed
25 into service in 2010 and 2011 will result in a net O&M increase of approximately
26 \$24,000 annually, as the increases associated with the new Bentley Terminal Station
27 and infrastructure additions at the FA Lee, DG Bell and RG Anderson Terminal Stations

1 are partially offset by savings from the removal of the Oliver Terminal Station equipment
2 and its downsizing to a distribution substation.

3 A number of other projects, such as the Big White Supply and Ootischenia Substation
4 projects completed in 2008, and the Ellison, Black Mountain, and Benvoulin
5 Substations and the Distribution Substation Automation projects being implemented
6 over the next two years, will increase operating costs. These projects are forecast to
7 increase annual maintenance costs from \$15,000 to \$25,000 per project as incremental
8 substation equipment such as transformers, switches, circuit breakers and current
9 limiting reactors will require ongoing maintenance. In addition, customer growth has
10 increased distribution plant in service, with the associated annual O&M costs absorbed
11 within the current O&M formula under the terms of FortisBC's PBR Plan.

12 Transmission maintenance for the most part appears in the form of capital
13 refurbishments associated with the condition assessment program, and as such,
14 improvements to the plant are reflected in reductions to future capital requirements and
15 not operating expenses.

16 In summary, the Capital Expenditure Plan is adding transmission and distribution plant
17 and the associated incremental maintenance at a rate that outpaces the rate at which
18 old plant is being salvaged. The resulting increase in operating cost is being absorbed
19 by the Company in productivity improvements to meet the current O&M formula and
20 associated built in Productivity Improvement Factors.

21 **Generation:**

22 Included in each Upgrade and Life Extension project is a projected O&M savings
23 component of \$100,000 for the year of implementation and the year immediately
24 following as a result of avoided maintenance and inspections outages

25 **General Plant:**

26 Included in the General Plant expenditures are three projects which impact O&M
27 expense. The separation of SAP support from FortisAlberta predicts an annual
28 decrease in O&M of approximately \$200,000 and the vehicle lease buy-out predicts

1 \$280,000 annual savings, both of which were accounted for in the 2006 Revenue
2 Requirements Application and associated Negotiated Settlement Agreement and
3 subsequently achieved. These savings are partially offset by increased O&M cost
4 associated with Automated Mapping / Facilities Management Geographic Information
5 Systems.

6 **Summary:**

7 O&M expense is calculated by a formula under the terms of the PBR mechanism, and
8 incorporates PIFs of 3.0 percent for 2009 and 1.5 percent PIF for 2010 which equate to
9 reduction of approximately \$1.3 million in 2009 and \$0.6 million in 2010 of Gross O&M
10 expense. This PIF was intended to not only recognize operating savings as a result of
11 capital expenditures, but also other operating efficiencies.

12 The following table summarizes the operating savings (increases) associated with
13 capital expenditures beginning in 2006.

Table A

	Capital Project		Annual Savings/ (Increase) (\$000s)							Comments
			2006	2007	2008	2009	2010	2011	2012+	
1	Creston Distribution Upgrade	2006 CEP	20	20	20	20	20	20	20	This project will address reliability, safety, and redundancy concerns in the Creston and Wynndel area. The Creston Distribution Feeder Upgrade project will support the Creston infrastructure by transferring a portion of the existing Creston central load to the new Lambert distribution source and allow the entire Wynndel load to be transferred to Lambert for decommissioning and salvage of the Wynndel station.
2	Kettle Valley Distribution Source	2005 CPCN			(20)	(20)	(21)	(21)	(22)	The savings associated with the decommissioning of old plant will be offset by ongoing operation and maintenance costs for the new plant put into service. This project is intended to address the system reliability risks, restoration times, and safety risks associated with the aged plant in the Kettle Valley region.
3	Nk'Mip Transmission and Substation	2005 CPCN	0	0	(20)	(20)	(21)	(21)	(22)	The construction of a new distribution source station will help improve power quality in the Osoyoos area, including the area of east Osoyoos where service has typically been below the recommended minimum. Additional improvements are expected in reliability, capacity, and safety as a result of this project implementation.
4	Big White Supply	2006 CPCN	(10)	(16)	(16)	(17)	(17)	(17)	(18)	This project will benefit area customers by improving the consistency and reliability of supply while assuring sufficient capacity to meet the immediate and long-term demands of growth at Big White.
5	Black Mountain Substation	2006 CPCN	0	0	(9)	(18)	(18)	(19)	(19)	The implementation of this project will help to address system capacity constraints related to the current and forecast load growth in the Black Mountain area of Kelowna. System reliability and redundancy will also be improved as a result of this project.
6	Ellison Substation	2006 CPCN	(10)	(14)	(14)	(15)	(20)	(20)	(21)	The implementation of this project will help to address system capacity constraints related to the current and forecast load growth in the north area of Kelowna. System reliability and redundancy will also be improved as a result of this project.
7	Distribution Substation Automation	2007 CPCN	0	0	(10)	(25)	(45)	53	54	The ultimate goal of implementing the Substation Automation Program is to improve employee and public safety, power quality and reliability as seen by the customers. Remote operation and automation of all substations in the system will allow FortisBC to reduce outage times and also reduce operating expenses associated with dispatching personnel to make manual adjustments and switching.

	Capital Project		Annual Savings/ (Increase) (\$000s)							Comments
			2006	2007	2008	2009	2010	2011	2012+	
8	Ootischenia Substation	2007 CPCN	0	0	(9)	(18)	(18)	(19)	(19)	The completion of this project will address immediate capacity deficiency and forecast future load growth in the Castlegar region. With load growth forecast to grow at 2.5% over the next 5 years, this project will help ensure available capacity for planned and future developments in the Castlegar area.
9	Okanagan Transmission Reinforcement	2007 CPCN	0	0	0	0	0	(24)	(24)	The implementation of this project will address system constraints related to the current and forecast load growth in the Kelowna area. System reliability and redundancy will be improved as a result of this project.
11	Benvoulin Substation	2008 CPCN	0	0	0	0	0	(20)	(20)	The implementation of this project will help to address system capacity constraints related to the current and forecast load growth in the south / center Kelowna area. System reliability and redundancy will also be improved as a result of this project.
12	Lower Bonnington Unit 1 ULE	2006 CEP	100	0	0	0	0	0	0	The ULE program commenced in 1997 and was developed to ensure the continued long-term reliability of the aging units and associated systems. Avoided maintenance in year of life extension and year following.
13	Lower Bonnington Unit 3 ULE	2006 CEP & 2007/08 CEP		100	100	0	0	0	0	The O&M savings from the 2006 CEP were delayed to 2007 due to the timing of the project. The project had originally been scheduled for implementation in 2006 but was delayed to 2007 due to the Transformer failure on LBO Unit 2. Avoided maintenance in year of life extension and year following.
14	South Slokan Unit 3 ULE	2007/08 CEP			100	100	0	0	0	Avoided maintenance in year of life extension and year following.
15	South Slokan Unit 1 ULE	2007/08 CEP				100	100	0	0	Avoided maintenance in year of life extension and year following.

	Capital Project		Annual Savings/ (Increase) (\$000s)							Comments
			2006	2007	2008	2009	2010	2011	2012+	
16	Corra Linn Unit 1 ULE						100	100	0	Avoided maintenance in year of life extension and year following.
17	Corra Linn Unit 2 ULE							100	100	Avoided maintenance in year of life extension and year following.
18	SAP Upgrade	2006 CEP	200	200	200	200	200	200	200	This project involved the implementation of the SAP software at FortisBC to accommodate separation of SAP support from FortisAlberta.
19	AM/FM/GIS	2006 CPCN		(150)	(150)	(150)	(163)	(170)	(170)	This enhancement will ensure that FortisBC has a modern technology platform in place to provide the necessary data for efficient operation of assets and planning for growth and change.
20	Vehicle Lease Buy-out	2006 CEP	280	280	280	280	280	280	280	In 2004, after a review of leasing versus ownership, it was determined that ownership offered the least-cost long term option. The units to be purchased in 2006 will offset annual leasing cost of \$282,000.
23	TOTAL O&M SAVINGS (INCREASE)		580	420	452	417	377	422	319	

Note: savings/ increases as presented in the original application have not been adjusted to reflect differences in inflation due to application dates.