



Diane Roy
Vice President, Regulatory Affairs

Gas Regulatory Affairs Correspondence
Email: gas.regulatory.affairs@fortisbc.com

Electric Regulatory Affairs Correspondence
Email: electricity.regulatory.affairs@fortisbc.com

FortisBC
16705 Fraser Highway
Surrey, B.C. V4N 0E8
Tel: (604) 576-7349
Cell: (604) 908-2790
Fax: (604) 576-7074
Email: diane.roy@fortisbc.com
www.fortisbc.com

September 25, 2018

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC
V6Z 2N3

Attention: Mr. Patrick Wruck, Commission Secretary and Manager, Regulatory Support

Dear Mr. Wruck:

Re: FortisBC Inc. (FBC)
Project No. 1598967
Annual Review for 2019 Rates (the Application)
Errata to the Application (Exhibit B-2) dated September 25, 2018

On July 26, 2018, FBC filed the Application referenced above. Concurrent with this Errata filing, FBC submitted its responses to Information Requests (IR) No. 1.

During the course of responding to IRs, FBC identified a small number of errors in the Application that require corrections. The following outlines the corrections made as part of this Errata.

1. Advanced Metering Infrastructure (AMI) Impact on Losses: The response to BC IR 1.13.2 provided corrected values for the impact of AMI on system losses.
2. Appendix A2 –Load Forecast Tables: Tables 6.1 and 6.2 of Appendix A2, which calculate historical forecast variances, have been corrected for the 2017 year. These tables were referenced in the responses to BCUC IR 1.16.3 and BCOAPO IRs 1.6.1, 1.6.2, 1.8.1, and 1.9.1.
3. Appendix B2 – FBC Capital Directives: As identified in the response to BCUC IR 1.7.3.1, Table B2-1: Annual Capital Variances has been corrected for an omission.
4. Upper Bonnington Old Units Refurbishment Project: Table C-2 of Appendix C has been corrected, as referenced in the responses to BCUC IRs 1.26.1, 1.42.1 and 1.42.1.1.

The following pages of the Application (Exhibit B-2) have been revised as a result of the corrections noted above.

- Application, page 29, Table 3-4;
- Appendix A2, page 9, Table 6.1;
- Appendix A2, page 10, Table 6.2;
- Appendix B2, page 2, Table B2-1, Line 13; and
- Appendix C, pages 19 and 20, Table C-2.

For ease of reference, FBC has attached the blacklined versions of the affected pages.

If further information is required, please contact Joyce Martin at 250-368-0319.

Sincerely,

FORTISBC INC.

Original signed:

Diane Roy

Attachments

cc (email only): Registered Parties

- 1 (i) a comparison of the projected GWh reduction for the test year and proceeding
 2 years to the estimated GWh theft reduction assumed in the AMI decision for
 3 those years; and
- 4 (ii) a description of FBC’s operational activities and costs incurred in reducing
 5 electricity theft (for example, related to FBC’s Revenue Protection Program) and
 6 the regulatory treatment of these costs.¹³

7
 8 The following information on theft reduction, the costs and activities incurred reducing electricity
 9 theft and regulatory treatment is provided in response to this directive.

10 The projected GWh theft reduction for the test year and subsequent years is unchanged from
 11 the estimated GWh theft reduction assumed in the AMI decision. The AMI decision included the
 12 impact of the Commission’s determination to limit the number of assumed marijuana grow
 13 cycles to three per year, resulting in assumed annual energy losses of 113,000 kWh annually
 14 per theft site.

15 Current forecast loss reductions remain unchanged from those provided as part of the AMI
 16 CPCN application, as modified by the determinations provided in Order C-7-13. Table 3-4
 17 below provides details of the normalized losses for 2013 – 2017, as well as the forecast losses
 18 (both with and without the AMI impact) for 2018 – 2019. The 2017 AMI impact to losses related
 19 to theft detection and deterrence is 3.9 GWh, which is consistent with the original forecast. The
 20 2017 loss figures are embedded in the 2018 – 2019 loss figures noted in Table 3-4.

Table 3-4: System Losses Before and After AMI, 2013 – 2019

Line No.	Year	Normalized Actuals and After-Savings Gross Load (GWh)	Before AMI		After AMI		
			% of Gross Load	Normalized Actual and Forecast Losses (GWh)	AMI Impact (GWh)	Losses (GWh)	% of Gross Load
1	2013 Actual	3,500.0	7.95%	277.9			
2	2014 Actual	3,433.6	7.86%	269.9			
2	2015 Actual	3,446.2	7.91%	272.5			
4	2016 Actual	3,480.3	7.87%	274.1			
5	2017 Actual	3,511.8	8.02%	281.8			
6	2018 Seed	3,570.0	8.00%	285.5	(3.0)	282.5	7.91%
7	2019 Forecast	3,601.6	8.00%	288.2	(5.4)	282.8	7.85%

Note: The AMI impacts are incremental to the losses before AMI in each year, and are incorporated into the forecast for the following year (the 2019 forecast includes a 2018 forecast reduction of 4.2 GWh plus a 2019 forecast reduction of 3.4 GWh).

¹³ Order G-107-15, page 15.

1 **6. VARIANCES TO FORECAST**

2 **6.1 CUSTOMER COUNT VARIANCE**

Customer Count	2012	2013	2014	2015	2016	2017
Actual						
Residential	99,228	98,906	113,431	114,166	115,772	117,748
Commercial	11,811	12,077	14,363	14,976	15,073	15,398
Wholesale	7	6	6	6	6	6
Industrial	39	39	49	50	50	50
Lighting	1,739	1,641	1,620	1,590	1,559	1,511
Irrigation	1,091	1,097	1,103	1,095	1,090	1,080
Total	113,915	113,766	130,572	131,883	133,550	135,793
Forecast						
Residential	101,320	103,279	113,229	114,855	115,758	116,031
Commercial	11,837	12,130	13,739	14,531	15,042	15,813
Wholesale	7	7	6	6	6	6
Industrial	36	36	48	49	49	50
Lighting	1,830	1,830	1,742	1,620	1,620	1,590
Irrigation	1,075	1,075	1,091	1,103	1,103	1,095
Total	116,105	118,357	129,855	132,164	133,578	134,585
Variance (customers)						
Residential	(2,092)	(4,373)	202	(689)	14	1,717
Commercial	(26)	(53)	624	445	31	(415)
Wholesale	-	(1)	-	-	-	-
Industrial	3	3	1	1	1	-
Lighting	(91)	(189)	(122)	(30)	(61)	(79)
Irrigation	16	22	12	(8)	(13)	(15)
Total	(2,190)	(4,591)	717	(281)	(28)	1,208
Variance (%)						
Residential	-2.1%	-4.4%	0.2%	-0.6%	0.0%	1.5%
Commercial	-0.2%	-0.4%	4.3%	3.0%	0.2%	-2.7%
Wholesale	0.0%	-16.7%	0.0%	0.0%	0.0%	0.0%
Industrial	7.7%	7.7%	2.0%	2.0%	2.0%	0.0%
Lighting	-5.2%	-11.5%	-7.5%	-1.9%	-3.9%	-5.2%
Irrigation	1.5%	2.0%	1.1%	-0.7%	-1.2%	-1.4%
Total	-1.9%	-4.0%	0.5%	-0.2%	0.0%	0.9%

3

4

1 **6.2 LOAD VARIANCE, NORMALIZED ACTUAL TO FORECAST**

Energy (GWh)	2012	2013	2014	2015	2016	2017
Normalized						
Residential	1,229	1,353	1,296	1,298	1,296	1,320
Commercial	681	788	863	853	905	915
Wholesale	899	675	567	580	574	574
Industrial	291	352	381	380	373	363
Lighting	13	13	16	16	16	16
Irrigation	38	40	40	46	42	42
Net	3,151	3,222	3,163	3,174	3,206	3,230
Gross	3,422	3,500	3,433	3,446	3,480	3,512
Forecast						
Residential	1,264	1,276	1,402	1,397	1,367	1,353
Commercial	696	709	813	808	871	879
Wholesale	926	935	581	593	579	587
Industrial	250	255	389	371	393	407
Lighting	14	14	13	14	13	14
Irrigation	44	43	42	40	39	40
Net	3,193	3,233	3,240	3,224	3,262	3,282
Gross	3,502	3,543	3,519	3,499	3,540	3,559
Variance (GWh)						
Residential	(35)	77	(106)	(99)	(71)	(33)
Commercial	(16)	79	50	45	34	36
Wholesale	(27)	(260)	(14)	(13)	(5)	(13)
Industrial	41	97	(9)	9	(20)	(44)
Lighting	(0)	(0)	3	2	3	1
Irrigation	(6)	(3)	(2)	6	3	2
Net	(43)	(11)	(77)	(50)	(56)	(52)
Gross	(81)	(43)	(86)	(53)	(59)	(47)
Variance (%)						
Residential	-2.9%	5.7%	-8.2%	-7.6%	-5.5%	-2.5%
Commercial	-2.3%	10.1%	5.9%	5.3%	3.8%	3.9%
Wholesale	-3.0%	-38.5%	-2.5%	-2.2%	-0.8%	-2.3%
Industrial	14.1%	27.6%	-2.2%	2.3%	-5.3%	-12.3%
Lighting	-3.5%	-1.5%	18.2%	12.7%	16.3%	9.4%
Irrigation	-14.9%	-8.7%	-4.9%	12.1%	7.7%	3.9%
Net	-1.4%	-0.3%	-2.4%	-1.6%	-1.7%	-1.6%
Gross	-2.4%	-1.2%	-2.5%	-1.5%	-1.7%	-1.3%

2
3 *Note: The 2013 forecast included the CoK as wholesale customer since at the time of the 2012-*
4 *2013 Revenue Requirements the application for the acquisition of the CoK was not yet filed.*

2. ANNUAL CAPITAL VARIANCES

In Table B2-1 below, FBC provides a breakdown and itemization of variances attributable to the items identified by the Commission.

Table B2-1: Annual Capital Variances (\$ millions)

Line No.	Description	2014	2015	2016	2017	2018F	Cumulative
1	Growth factor reduction for net customer additions	0.140	0.080	0.260	0.220	0.290	0.980
2	X factor increase by 0.53 percent	0.230	0.230	0.230	0.240	0.250	1.170
3	System improvements to accommodate growth	2.000	2.000	1.000	2.600	1.000	8.600
4	Forced relocation of Highway 97 infrastructure	0.100	0.400	2.400	0.700	0.100	3.700
5	Customer-driven modifications at RG Anderson Terminal			0.100	2.700	0.735	3.535
6	New Generation projects to address compliance with WorkSafeBC legislation (guarding of rotating parts and floor covers)			0.140	0.140	0.584	0.864
7	New Generation projects to address compliance with WorkSafeBC legislation (single device isolation)					0.254	0.254
8	Unanticipated transmission projects to address safety and reliability issues					0.600	0.600
9	Substation projects to address end of life equipment replacements				1.200	0.600	1.800
10	Other contributing factors:						
11	Weather events					1.899	1.899
12	Evolved project definition				1.900		1.900
13	Project re-prioritization				4.000	1.370	5.370
14	Cyber security				0.125	0.215	0.340
15	TOTAL Capital Pressures	2.470	2.710	4.130	13.825	7.897	31.012
16	Annual and cumulative capital expenditures variance compared to formula	0.472	2.408	2.964	15.799	11.394	33.035

Table B2-1 shows that the pressures experienced in years 2014 to 2016 are greater than the variances of FBC's annual capital expenditures over formula in those years. In order to manage pressures experienced during years 2014 to 2016 of the PBR term, some projects that were assessed as being less critical to the system, or that were temporarily less time-sensitive, were reprioritized to future years to accommodate the required projects listed in the table. In 2017 and 2018, FBC has prioritized:

- additional capital expenditures to start to catch up on an accumulation of work that had been re-prioritized from previous years of the PBR term; and
- new projects that were identified to address safety, compliance, reliability issues and to replace end of life of equipment.

For this reason, FBC's cumulative capital expenditure compared to formula is higher than the total of the items shown in Table B2-1.

3. PROJECT COSTS

The following table outlines the project expenditures to June 30, 2018 and the forecast project expenditures to completion.

Table C-2: Cost Summary

Description	Application/ Control Budget	Spent to Date	Estimate to Complete	Forecast Total to Complete	Variance	Percentage Budget Spent	Variance Explanations
	(1)	(2)	(3)	(4)=(2)+(3)	(5)=((4)-(1))/(1)	(6)=(2)/(1)	
	(\$000s)				(%)		
Unit 3	4,079	6,128	86	6,214	52%	150%	Advancement of engineering effort from future years into 2017 in addition to higher than anticipated stator and rotor rewind new construction costs. Remaining expenditures are related to minor deficiencies which will be addressed post-freshet.
Unit 4	6,634	5,027	2,393	7,419	12%	76%	Completion of Unit 4 turbine assessment, and higher than anticipated stator and rotor rewind costs. Higher than anticipated machining/fabrication costs related to poor mechanical component condition.
Unit 1	8,050	668	6,805	7,473	-7%	8%	Forecasting under budget. Anticipating engineering effort will be lower than expected as engineering from previous units can be updated for use on Unit 1. FBC is anticipating savings from the application of learnings and from increased productivity.
Unit 2	5,641	438	5,035	5,473	-3%	8%	Forecasting under budget. Anticipating engineering effort will be lower than expected as engineering from previous units can be updated for use on Unit 2. FBC is anticipating savings from the application of learnings and from increased productivity.
Common	860	397	342	739	-14%	46%	Forecasting under budget due to lower than anticipated costs related the AC/DC Station Service work. Plant Wrap-Up work remaining in 2021.
Subtotal - Construction	25,264	12,657	14,660	27,318	8%	50%	
Cost of Removal	1,880	826	670	1,496	-20%	44%	Lower than anticipated removals for stator and

Deleted: 59

APPENDIX C
FBC UBO REFURBISHMENT PROJECT STATUS REPORT



Description	Application/ Control Budget	Spent to Date	Estimate to Complete	Forecast Total to Complete	Variance	Percentage Budget Spent	Variance Explanations
							rotor rewind, transformer containment, and engineering and construction management support during removals
Project Contingency	3,771	See Note 1	1,781	1,781	-53%	0%	Contingency has been reduced by \$ 1.99 million to reflect significant proportion of engineering, procurement / construction complete). Deleted: 2.0
Subtotal- Construction & Removal	30,916	13,483	17,112	30,585	-1%	44%	Deleted: 18,269
AFUDC	867	314	874	1,188	37%	36%	Advancement of engineering and procurement.
Total Project Cost	31,783	13,797	17,986	31,783	0%	43%	Deleted: 12,600 Deleted: 19,182

Note: (1) Approximately \$1.99 million of contingency has been allocated to Units 3, 4 and 1. This is reflected in the "Spent to Date" column for Units 3 and 4, and in the "Estimate to Complete" column for Unit 1 as described in the response to BCUC IR 1.43.2.

1
2
3
4