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May 9, 2019

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 Energy Inc. and FortisBC Inc. (collectively FortisBC)
Application for Approval of a Multi-Year Rate Plan for 2020 through 2024
(Application)
Errata dated May 9, 2019

On March 11, 2019, FortisBC filed the above noted Application. FortisBC has identified a small number of errors in the Application that require corrections. The following outlines the corrections made as part of this Errata.

Description	Revised Pages
Application, Section C3 Capital Forecast	Pages C-64, C-65, C-75, C-84
Application, Section D6 Capitalized Overhead Study	Page D-57

These corrections do not result in any impacts to the results or recommendations contained in the Application.

FortisBC has attached the blacklined version of the affected pages.

If you require further information or have any questions regarding this submission, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.
FORTISBC INC.

Original signed:

Doug Slater

Attachments

cc (email only): Registered Parties

1 As a result of all of these factors, FEI's cumulative Sustainment and Other capital expenditures
2 exceeded the formula amount by 15.9 percent over the PBR term. The contributing factors are
3 discussed further in Appendix B8-1 FEI Capital Directives.

4 Table C3-5 below summarizes the 2020-2024 forecast expenditures for Sustainment and Other
5 capital. Additional details of the forecast Sustainment and Other capital expenditures are
6 provided in the following sections, under Section C3.3.2.1 FEI Sustainment Capital and Section
7 C3.3.2.2 FEI Other Capital.

8 **Table C3-5: FEI Sustainment and Other Capital Expenditures 2020-2024 (\$000s)**

	Average 2017-2019P	2020	2021	2022	2023	2024
Sustainment Capital	110,811	111,530	112,944	117,106	119,663	124,533
Other Capital	42,970	49,770	49,916	46,474	46,403	45,351
Total Capital	153,781	161,300	162,860	163,580	166,066	169,884

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9 FortisBC has endeavored to maintain Sustainment and Other capital spending increases at a
10 level less than inflation over the course of the 2020-2024 term. Due to the timing and size of
11 certain capital projects, fluctuations in capital spend from year to year are at times greater than
12 inflation. However, the cumulative capital expenditure forecast from 2020-2024 represents less
13 than annual inflationary increases over that term.

15 **3.3.2.1 FEI Sustainment Capital**

16 The expenditures within Sustainment capital include gas system improvements to the
17 transmission and distribution system in order to meet forecast load and to ensure the safety,
18 reliability and integrity of the system. Sustainment capital includes expenditures for meter recall
19 programs, replacements and upgrades to the distribution and transmission systems, and
20 expenditures for mains and service renewals and alterations.

21 The actual and projected Sustainment capital expenditures from 2014-2019 are summarized in
22 Table C3-6 below.

23 **Table C3-6: FEI Sustainment Capital Expenditures 2014-2019 (\$000s)**

	2014 Actual	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 YEF
Customer Measurement	24,375	28,516	30,140	31,485	33,271	30,837
Transmission System Reliability & Integrity	22,043	30,409	31,738	37,596	39,095	42,301
Distribution System Reliability	13,634	18,346	14,213	18,232	17,686	13,088
Distribution System Integrity	29,635	15,676	17,378	20,722	25,158	22,960
Sustainment CIAC	(1,882)	(3,530)	(3,799)	(3,844)	(4,077)	(4,118)
Sustainment Capital – Total	87,806	89,417	89,669	104,192	111,133	105,069

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1 Table C3-7 summarizes the Sustainment and Other capital expenditures required over the
2 2020-2024 term.

3 **Table C3-7: FEI Sustainment Capital Expenditures 2020-2024 (\$000s)**

	Average 2017-2019P	2020	2021	2022	2023	2024
Customer Measurement	31,864	30,559	31,328	31,781	32,461	32,979
Transmission System Reliability & Integrity	39,663	42,213	37,599	41,021	45,792	47,355
Distribution System Reliability	16,336	14,539	12,403	19,223	12,486	22,032
Distribution System Integrity	22,946	24,219	31,615	25,080	28,924	22,168
Sustainment CIAC	(4,013)	(3,902)	(3,902)	(3,902)	(3,902)	(3,902)
Sustainment Capital – Total	106,796	107,628	109,042	113,205	115,761	120,631

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5 The forecast capital expenditures for each of the categories shown in the table above is
6 described in more detail in the following sections, along with a description of larger projects (>\$2
7 million) that are forecast within the 2020-2024 term. Cost estimates for projects that are
8 planned for execution 2 or more years in the future are generally at a Class 4 (-30 percent to
9 +50 percent) or Class 5 (-50 percent to +100 percent) level. Depending on the size and
10 complexity of the project, a Class 3 estimate will be developed one to two years prior to
11 execution.

12 **3.3.2.1.1 CUSTOMER MEASUREMENT**

13 Customer Measurement includes expenditures related to meter exchanges and meter set
14 upgrades. Customer Measurement capital is further broken down into the four broad categories
15 shown in the table below.

16 Details of the Customer Measurement capital expenditures from Table C3-7 above are
17 summarized in Table C3-8 below. Please refer to Appendix B8-2 for a description of the capital
18 that is included in each of the categories shown in the table.

19 **Table C3-8: FEI Customer Measurement Capital Expenditures 2020-2024 (\$000s)**

	Average 2017-2019P	2020	2021	2022	2023	2024
Meter Materials	21,576	21,048	21,469	21,898	22,336	22,783
Residential Meter Alteration & Exchange	7,280	7,085	7,226	7,371	7,518	7,669
Small Commercial / Industrial Meter Alteration & Exchange	963	955	1,027	1,004	1,013	1,034
Large Commercial / Industrial Meter Alteration & Exchange	2,045	1,472	1,606	1,508	1,593	1,494
Customer Measurement - Total	31,865	30,559	31,328	31,781	32,461	32,979

1 separate requisitioning for components based on usage of the shared asset by the respective
2 organizations.

3 Details of the IS capital expenditures from Table C3-17 above are summarized in Table C3-19
4 below. Please refer to Appendix B8-2 for a description of the capital that is included in each of
5 the categories shown in the table.

6 **Table C3-19: FEI IS Capital Expenditures 2020-2024 (\$000s)**

IS	Average 2017-2019P	2020	2021	2022	2023	2024
Information Systems Sustainment	12,268	11,758	11,811	11,676	10,750	10,855
Application Enhancements	1,999	2,850	2,850	2,850	2,850	2,850
Cybersecurity	1,217	2,900	3,100	3,100	3,100	3,100
Business Technology Applications	8,467	10,800	10,800	10,800	10,800	10,800
Total	23,952	28,308	28,561	28,426	27,500	27,605

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8 The annual average IS spending for all of the categories shown in the table was almost \$24
9 million for 2017 to 2019. Overall, IS expenditures are growing approximately 3 percent per year
10 relative to the 2017-2019 average expenditure. There has been a continued increase in
11 spending from 2017 to 2019 in all categories except Sustainment. Each of the four categories is
12 discussed below.

13 **IS Sustainment:**

14 Infrastructure sustainment is the non-discretionary capital funding required to replace or
15 upgrade outdated or end-of-life hardware and server software in the data centres. This includes
16 servers, operating systems, local area network (LAN) and wide area network (WAN) equipment,
17 etc.

18 End-user device sustainment is the capital funding required to replace or upgrade end user
19 equipment and software. This includes PCs, operating systems, desktop applications, printing
20 equipment, all mobile devices, etc.

21 Application sustainment is the capital funding required to sustain existing software applications.
22 This includes required upgrades to maintain support, reliability and performance of existing
23 applications not including data centre software.

24 **Application Enhancements:**

25 Enhancement is the capital funding to modify the functionality or enable capabilities of existing
26 applications to meet annual business requirements with priority on safety and customer service.
27 This includes interfaces, enabling new functionality, enhanced reporting, etc. The increased
28 implementation of business tools over the last 5 years has increased the amount of applications
29 requiring enhancements.

30 **Cyber security:**

31 Increased sophistication in cyber threats has forced hardware and software companies to
32 release updated code and operating systems to counteract these threats. The frequency of

- **DG Bell Feeder 4 Addition:** The addition of a fourth feeder is required to meet the significant residential customer growth occurring in the upper Mission area of Kelowna. The expected in-service date of this \$2.0 million project is 2020.

3.4.1.1.3 NEW CONNECTS

The New Connects category includes the installation of new electric services consisting of additions to FBC overhead and underground distribution facilities. These capital expenditures allow FBC to meet its obligation to provide reliable service to customers in its service area. This category also funds any costs associated with upgrading FBC facilities to provide service for an extension or drop service. Consistent with past practice, the forecast expenditures for New Connects are based on historical expenditures adjusted for anomalous years and inflation.

3.4.1.2 FBC Sustainment Capital

The expenditures within Sustainment capital include system improvements to the transmission and distribution system in order to maintain existing equipment to meet forecast load and for the safety, reliability and quality of the system. FBC also identifies and addresses hazards and risks that require immediate attention through specific projects.

Sustainment capital is further classified into five categories of expenditure, each of which is described in more detail in the following sections, along with a description of projects forecast to exceed \$1 million that are expected to proceed within the 2020-2024 term. Table C3-25 below summarizes the average 2017-2019 actual and projected expenditures and forecast 2020-2024 expenditures for these categories of sustainment capital.

Table C3-25: FBC Sustainment Capital Expenditures 2020-2024 (\$000s)

	Average		2020	2021	2022	2023	2024
	2017-2019P						
Generation	\$ 3,475	\$ 6,697	\$ 6,766	\$ 6,309	\$ 7,008	\$ 6,514	
Transmission Sustainment	4,778	8,353	6,387	5,698	7,951	7,591	
Stations Sustainment	4,915	13,538	13,624	5,279	3,793	15,971	
Distribution Sustainment	14,719	20,337	20,338	19,542	19,990	20,353	
Telecommunications	2,516	1,818	2,983	6,280	5,915	3,472	
Total	\$ 30,403	\$ 50,743	\$ 50,098	\$ 43,110	\$ 44,657	\$ 53,901	

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Each of these five categories is described further below.

3.4.1.2.1 GENERATION CAPITAL

FBC operates and maintains four generating facilities with a total of 15 units. FBC regularly monitors its infrastructure to ensure it meets industry standards and guidelines, complies with regulations, and operates safely to minimize risk to the public and employees.

FBC's Generation capital is grouped into four capital programs.

Table C3-26 below provides the 2017-2019 average and the 2020-2024 forecast expenditures for FBC's four Generation capital programs.

1 **Table D6-1: FEI Capital, O&M and Capitalized Overhead 2009-2020 (\$000s)**

	Order G-33-07	Order G-140-09/ G-141-09		Order G-44-12		Orders G-138-14 & G-65-14	Order G-86-15 & G-106-15	Order G-193-15	Order G-182-16	Order G-196-17	Order G-237-18 & G-10-19	2020
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Projected
	Approved forecast	Approved forecast	Approved forecast	Approved forecast	Approved forecast	Approved forecast	Approved forecast	Approved forecast	Approved forecast	Approved forecast	Approved forecast	Projected
Capex (excl. OH)	113,031	121,930	129,857	157,920	156,089	164,250	156,440	162,748	160,711	170,406	189,281	228,133
Gross O&M	206,502	237,695	247,382	263,087	272,187	264,869	270,475	271,620	269,275	275,631	281,148	291,761
Capitalized OH	(33,040)	(33,277)	(34,622)	(36,832)	(38,106)	(32,501)	(32,457)	(32,594)	(32,313)	(33,076)	(33,738)	(48,252)
Net O&M	173,462	204,418	212,760	226,255	234,081	232,368	238,018	239,026	236,962	242,555	247,410	243,509
Capitalized OH Rate	16%	14%	14%	14%	14%	12%	12%	12%	12%	12%	12%	16%
Capitalization Rate	29%	27%	27%	23%	24%	20%	21%	20%	20%	19%	18%	21%

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