

November 16, 2017

VIA E-FILING

Patrick Wruck
Commission Secretary
BC Utilities Commission
6th Floor 900 Howe Street
Vancouver, BC V6Z 2N3



Reply to: Leigha Worth
lworth@bcpiac.com
Ph: 604-687-3034
Our File:7658

Dear Mr. Wruck:

**Re: FortisBC Inc. (FBC) Annual Review 2018 Rates
Project No. 1598920**

Please be advised that we continue to represent the following organizations in this regulatory process: British Columbia Old Age Pensioners' Organization, Disability Alliance BC, Council of Senior Citizens' Organizations of BC, and the Tenant Resource and Advisory Centre, ("BCOAPO et al." or "BCOAPO"). The constituent groups of BCOAPO *et al.* have represented the interests of FBC's low and fixed income residential ratepayers in the examination and analysis of this and past FBC Performance-Based Ratemaking Schemes as well as their related Annual Reviews.

In Section 1.2 of its Application, FBC summarized the approvals it was seeking. These approvals included:

1. Permanent rates for all customers effective January 1, 2018, resulting in a general increase of 0.11 percent compared to 2017 rates, to be applied to all components of rates for all customer classes.
2. The creation of five non-rate base deferral accounts, as described in Section 12.4.1 of the Application:
 - A Multi-Year DSM Expenditure Schedule, to be financed at the Company's weighted average cost of debt (WACD);
 - A Community Solar Pilot Project application, to be financed at the Company's short term interest (STI) rate;
 - Tariff Applications, to be financed at the Company's STI rate;
 - 2020 Revenue Requirements application, to be financed at the Company's WACD; and
 - 2018 Joint Use Pole Audit, to be financed at the Company's WACD.

- Z-factor treatment for the 2018 incremental O&M and capital expenditures related to the Mandatory Reliability Standards (MRS) Assessment Reports No. 8 and No. 10, as described in Section 12.2 of the Application.

On October 3, 2017, FBC filed an evidentiary update revising the requested rate increase to 0.17%. This revised rate increase request was summarized in the following schedule from FBC's October 3, 2017 filing.¹

FORTISBC INC.		October 3, 2017				Section 11	
UTILITY INCOME AND EARNED RETURN FOR THE YEAR ENDING DECEMBER 31, 2018 (\$000s)						Schedule 16	
Line No.	Particulars	2017 Approved	2018 Forecast		Change	Cross Reference	
	(1)	(2)	at Existing Rates (3)	Revised Revenue (4)	at Revised Rates (5)	(6)	(7)
1	ENERGY VOLUMES						
2	Sales Volume (GWh)	3,282	3,213		3,213	(69)	Schedule 17, Line 9, Column 3
3							
4	REVENUE						
5	Sales	\$ 352,389	\$ 356,340	\$ -	\$ 356,340	\$ 3,951	Schedule 17, Line 19, Column 3
6	Deficiency (Surplus)	9,739	-	619	619	(9,120)	
7	Total	362,128	356,340	619	356,959	(5,169)	Schedule 18, Line 8, Column 5
8							
9	EXPENSES						
10	Cost of Energy	151,472	148,450	-	148,450	(3,022)	Schedule 19, Line 29, Column 3
11	O&M Expense (net)	49,917	49,802	-	49,802	896	Schedule 20, Line 32, Column 4
12	Depreciation & Amortization	55,657	52,695	-	52,695	(2,962)	Schedule 21, Line 11, Column 3
13	Property Taxes	16,052	16,684	-	16,684	632	Schedule 22, Line 7, Column 3
14	Other Revenue	(8,056)	(8,416)	-	(8,416)	(360)	Schedule 23, Line 8, Column 3
15	Utility Income Before Income Taxes	99,086	97,124	619	97,742	(343)	
16							
17	Income Taxes	10,849	9,001	161	9,162	(1,688)	Schedule 24, Line 13, Column 3
18							
19	EARNED RETURN	\$ 87,237	\$ 88,123	\$ 458	\$ 88,581	\$ 1,344	Schedule 26, Line 5, Column 7
20							
21	UTILITY RATE BASE	\$ 1,285,408	\$ 1,321,742		\$ 1,321,742	\$ 36,335	Schedule 2, Line 29, Column 3
22	RATE OF RETURN ON UTILITY RATE BASE	6.79%	6.67%		6.70%	-0.08%	Schedule 26, Line 5, Column 6

The various elements of the revenue requirement that contributed to the change in the requested rate increase were summarized in the following schedule:²

¹ Exhibit B-2-1, Section 11, Schedule 14.

² Exhibit B-2-1, Section 11, Schedule 1.

Line No.	Particulars (1)	2018		Cross Reference (4)
		Forecast (2)	(3)	
1	VOLUME/REVENUE RELATED			
2	Customer Growth and Volume	5,788		
3	Change in Other Revenue	<u>(0,360)</u>	5,428	
4				
5	POWER SUPPLY			
6	Power Purchases (net of customer growth and volume)	(3,145)		
7	Wheeling	0,243		
8	Water Fees	<u>(0,120)</u>	(3,022)	
9				
10	O&M CHANGES			
11	Gross O&M Change	1,042		
12	Capitalized Overhead Change	<u>(0,157)</u>	0,886	
13				
14	DEPRECIATION EXPENSE			
15	Depreciation from Net Additions	2,430	2,430	
16				
17	AMORTIZATION EXPENSE			
18	CIAC from Net Additions	(0,224)		
19	Deferrals	<u>(5,169)</u>	(5,393)	
20				
21	FINANCING AND RETURN ON EQUITY			
22	Financing Rate Changes	(1,165)		
23	Financing Ratio Changes	0,044		
24	Rate Base Growth	<u>2,467</u>	1,345	
25				
26	TAX EXPENSE			
27	Property and Other Taxes Changes	0,632		
28	Other Income Taxes Changes	<u>(1,688)</u>	(1,056)	
29				
30				
31	Revenue Deficiency (Surplus)		<u>\$ 0,619</u>	Schedule 16, Line 6, Column 4
32				
33	Revenue at Existing Rates		<u>356,340</u>	Schedule 16, Line 5, Column 3
34	Rate Change		<u>0.17%</u>	

Evidentiary Update dated October 3, 2017

It is apparent based on this schedule that the key contributors to the rate increase are lower than forecast customer volumes offset in part by the reduced power supply related costs, rising O&M costs, an increase in the Depreciation from Net Additions, and changes to the finance and return on equity that increased FBC costs as well. All of these variances are captured in flow-through deferral accounts except the Return on Equity and O&M variances.³

LOAD FORECAST

The negative impact of the Customer Growth and Volume factor is, at first blush, a bit deceptive. This variance is not due to a decrease in the overall kWh in 2017. The chart below actually shows there was a slight increase in FBC's gross load in 2017 (3,484 GWh) over 2016 (3,477 GWh).⁴ Instead, the variance that has incurred additional costs for FBC and its ratepayers is rooted in the fact that the actual load for 2016 was less than was forecast for the purposes of last year's Annual Review (re 2017 rates) and the currently forecast loads for both 2017 and 2018 are less than the forecast for 2017 that was used to set the rates for Fiscal 2017.⁵

³ Exhibit B-2, pp 122-123.

⁴ Exhibit B-2, Appendix A-2, page 10.

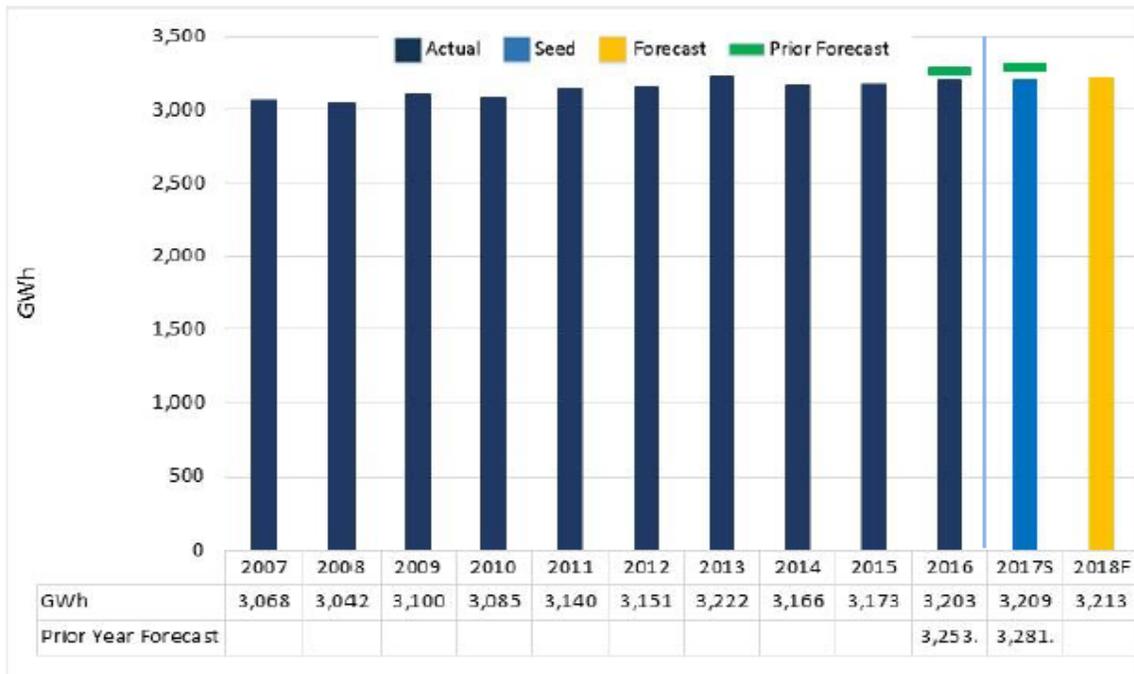
⁵ Exhibit B-2, page 24.

6.3 *NORMALIZED AFTER-SAVINGS ANNUAL PERCENT GROWTH*

Energy (GWh)	2011	2012	2013	2014	2015	2016	2017S	2018F
Residential	1,249	1,229	1,353	1,296	1,298	1,296	1,290	1,280
Commercial	657	681	788	866	853	901	908	912
Wholesale	910	899	675	567	580	574	585	586
Industrial	271	291	352	381	380	373	370	379
Lighting	13	13	13	16	16	16	16	15
Irrigation	40	38	40	40	46	42	41	41
Net	3,140	3,151	3,222	3,166	3,173	3,203	3,209	3,213
Losses	307	271	278	270	272	274	275	272
Gross	3,447	3,422	3,500	3,436	3,446	3,477	3,484	3,485
System Peak								
Winter Peak (MW)	722	723	720	651	693	724	710	712
Summer Peak (MW)	537	589	600	620	611	593	580	581

Growth Year over Year	2011	2012	2013	2014	2015	2016	2017S	2018F
Residential		-2%	10%	-4%	0%	0%	0%	-1%
Commercial		4%	16%	10%	-1%	6%	1%	1%
Wholesale		-1%	-25%	-16%	2%	-1%	2%	0%
Industrial		7%	21%	8%	0%	-2%	-1%	2%
Lighting		2%	0%	16%	2%	0%	-1%	-7%
Irrigation		-6%	4%	1%	15%	-9%	-3%	0%
Net		0%	2%	-2%	0%	1%	0%	0%
Losses		-12%	3%	-3%	1%	0%	0%	-1%
Gross		-1%	2%	-2%	0%	1%	0%	0%

Figure 3-1: Total Net Load (GWh)



FBC has used a load methodology for determining the “before savings” load forecast consistent with that used in prior years and which was accepted by the Load Forecast Technical Committee in 2011.⁶ The adjustments made to the 2017 Load Forecast are summarized in the following schedule.

Table 3-1: Forecast 2018 DSM and Other Savings (GWh)

Line No.	Description	DSM	AMI	CIP	RCR	Rate-Driven	Total
1	Residential	(14)	9	(4)	(4)	(1)	(13)
2	Commercial	(17)				(1)	(18)
3	Wholesale	(2)				(1)	(2)
4	Industrial	(2)					(2)
5	Lighting	(1)					(1)
6	Irrigation	(0)					
7	Net	(37)	9	(4)	(4)	(3)	(38)
8	Losses	(3)	(7)				(10)
9	Gross Load	(40)	2	(4)	(4)	(3)	(48)

The decrease in consumption from the forecast used to set 2017 rates is primarily rooted in the decrease in residential and industrial loads, offset by increased commercial load (see below).⁷

Table 3-5: Forecast Sales Revenue at 2017 Approved Rates (\$ millions)

Line No.	Description	Approved 2017	Projected 2017	Forecast 2018
1	Residential	\$ 187.578	\$ 179.346	\$ 178.976
2	Commercial	86.254	91.946	90.669
3	Wholesale	48.498	50.903	48.565
4	Industrial	33.501	31.645	31.712
5	Lighting	2.873	3.306	2.903
6	Irrigation	3.424	3.246	3.515
7	Total	\$ 362.128	\$ 360.392	\$ 356.340

Residential

While the pre-DSM load forecast is calculated in the same way as in the past, using the forecast customer count multiplied by a projected Use per Customer (UPC), FBC changed the methodology to calculate its UPC for 2018.⁸ Now, instead of using a rolling 3-year average UPC

⁶ Exhibit B-2, page 21.

⁷ Exhibit B-2, page 34.

⁸ BCUC 13.1.

as was done in previous applications, a trend analysis was done to generate 2018's UPC. In its application, FBC justified this change on the basis that the trend over the past 3 years is statistically significant.⁹

This change in methodology reduced the UPC value for 2018 from 11.4 MWh to 11.04 MWh and correspondingly reduced the residential load forecast by 42 GWh¹⁰. This amounts to a reduction of over 1% of FBC's total load forecast.

The historic values to estimate the UPC are actual weather normalized values that included the impact of DSM (see BCMEU 4.1 and Exhibit B-2, Attachment A2, page 7). However, FBC's use of a trend analysis implicitly assumes and builds in more DSM savings in 2017 and 2018. The problem is that the Utility then proceeded to adjust the Residential forecast based on UPC and customer count for DSM savings – effectively counting the savings twice. Our attempts to explore the impacts of this double counting did not result in FBC providing the requested information in our IR's 14.2 and 14.6 but FBC did eventually provide Table 5.3 from Exhibit B-2, Appendix A-2 broken down by customer class for each year beginning in 2012 in Undertaking 4.¹¹ These Tables did, in our submission, bear out the BCOAPO suspicion that this methodology is flawed. The UPC trend analysis was done using the three years 2014-2016 and according to the undertaking the DSM savings in those 3 years were 8 GWh, 6 GWh and 13 GWh respectively: roughly 9 GWh per year in additional DSM savings. Using the trend line UPC out to 2018 effectively means building in another 18 GWh over the 2016 base and according to FBC's response to BCUC IR 17.3, the 2017 and 2018 savings presented in the undertaking are incremental to the 2016 actuals. With the 2018 Residential value specified at 14 GWh, BCOAPO feels compelled to point out that this is less than was built in by using the trend so the trend line actually includes more DSM in 2018 than the Utility actually plans on achieving. This is problematic.

While the double counting of the impacts of DSM is a concern, the fact that any impact will eventually be trued up using the deferral accounts and the fact that the 2018 increase is low at this time (1%), the impact is not one that is significant enough *at this time* that BCOAPO feels it is necessary to push for a revised load forecast. If the load forecast does come out higher in reality then the positive impact will be used to offset future rate increases which are likely to be

⁹ Exhibit B-3, BCUC IR 13.1 and Exhibit B-4, BCOAPO IR 14.1.

¹⁰ Exhibit B-4, BCOAPO IR 14.7.

¹¹ Exhibit B-15, Undertaking 4.

higher than we saw this year. However, this forbearance should not and cannot be taken to mean that BCOAPO is agreeing to FBC's revised methodology. In this application, BCOAPO is agreeing to the numbers and not the methodology, particularly because the impact of this flawed methodology will become more significant as FBC faces future cost pressures and forecasting uncertainty.

Lighting

This class' (pre-DSM) load is also estimated using a trend analysis and is then adjusted for DSM impacts¹². The result is that this forecast also suffers from the same DSM double counting issue. However, given the same size of the Lighting load the impact on the overall load forecast is negligible.

Again, this is an instance where BCOAPO can, given the negligible impact of FBC's flawed methodology in this particular year, not challenge the utility's load forecast results while still objecting strongly to the methodology used to generate those numbers.

Industrial

FBC's industrial load forecast is largely based on its surveys of its industrial customers.¹³ In recent years, these customer-generated forecasts have been overly optimistic, resulting in forecasts that were higher than experienced actuals¹⁴ but in this Application, FBC has assumed that it will not accrue any new industrial customers.

While this very conservative assumption is a concern, there is no real basis upon which to object to the industrial forecast as being too low and, aside from the previously specified objection to FBC's forecast methodology, BCOAPO is prepared to accept the forecast figures for FBC's industrial customer group as well.

Customer Count

¹² Exhibit B-2, Appendix A2, page 6 and BCUC 16.1.

¹³ Exhibit B-2, Appendix A2, pages 5-6 and CEC 20.2.

¹⁴ CEC 21.1.

FBC has presented its forecast customer count in the following schedule.¹⁵

Table 3-2: Year-End Direct Customer Count

Line No.	Description	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017S	2018F
1	Residential	93,647	95,502	96,565	97,883	98,795	99,228	111,862	113,431	114,166	115,772	116,657	117,774
2	Commercial	11,010	11,216	11,308	11,419	11,525	11,811	13,662	14,363	14,976	15,073	15,748	16,122
3	Wholesale	7	7	7	7	7	7	6	6	6	6	6	6
4	Industrial	38	36	33	35	36	39	47	49	50	50	50	50
5	Lighting	1,992	1,910	1,874	1,830	1,803	1,739	1,644	1,620	1,590	1,559	1,559	1,559
6	Irrigation	1,030	1,048	1,066	1,075	1,092	1,091	1,097	1,103	1,095	1,090	1,090	1,090
7	Total	107,724	109,719	110,853	112,249	113,258	113,915	128,318	130,572	131,883	133,550	135,109	136,602

The Utility's residential customer counts are determined based on forecast population in the FBC service area while Commercial counts are based on changes in provincial GDP. For all other classes the number of customers is assumed to remain at 2014 levels.¹⁶

Actual customer counts as of June 2017 are set out below. The values for Residential and Commercial are slightly less than the average of the 2016 and 2017 year end values.

Customers	June-16	June-17
Residential	114,321	116,083
Commercial	15,062	15,398
Industrial	50	50
Wholesale	6	6
Irrigation	1,099	1,088
Lighting	1,559	1,529
Total	132,097	134,154

BCOAPO has reviewed these figures as well as the factual underpinnings for them and it is prepared to accept FBC's 2018 customer counts as reasonable.

Losses

In its Application, FBC calculated losses based on history and then it made additional adjustments for incremental AMI savings as set out below.¹⁷

¹⁵ Exhibit B-2, page 23.

¹⁶ Exhibit B-2, page 23.

¹⁷ Exhibit B-2, page 32.

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

Line No.	Year	Before AMI			After AMI		
		Actuals and Before-Savings Gross Load (GWh)	% of Gross Load	Normalized Actual and Forecast Losses (GWh)	Incremental AMI Impact (GWh)	% of Gross Load	Losses (GWh)
1	2012 Actual	3,421.7	7.92%	271.1			
2	2013 Actual	3,500.0	7.95%	278.1			
3	2014 Actual	3,436.0	7.86%	270.1			
4	2015 Actual	3,445.8	7.91%	272.4			
5	2016 Actual	3,476.6	7.87%	273.8			
6	2017 Seed	3,506.3	7.95%	278.9	(3.9)	7.84%	275.0
7	2018 Forecast	3,533.8	7.90%	279.1	(7.0)	7.70%	272.1

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 2018 forecast includes a 2017 forecast reduction of 3.9 GWh plus a 2018 forecast reduction of 3.0 GWh).

BCOAPO has no significant concerns regarding the Utility’s calculation of its losses, particularly since there is a true-up to actuals via the deferral accounts so it is prepared to accept this Application’s loss values for rate setting purposes.

POWER SUPPLY

In its evidentiary update, FBC provided the following Schedule showing modified costs for its power supply.¹⁸

¹⁸ Exhibit B-2-1, Schedule 19.

**COST OF ENERGY
FOR THE YEAR ENDING DECEMBER 31, 2018
(\$000s)**

Schedule 19

Line No.	Particulars (1)	2017 Approved (2)	2018 Forecast (3)	Change (4)	Cross Reference (5)
1	POWER PURCHASES				
2	Gross Load (GWh)	3,559	3,485	(74)	
3					
4	Power Purchase Expense				
5	Brilliant	\$ 39,373	\$ 39,632	\$ 259	
6	BC Hydro PPA	46,968	44,906	(2,062)	
7	Waneta Expansion	38,330	37,437	(893)	
8	Independent Power Producers	204	80	(124)	
9	Market and Contracted Producers	11,341	11,016	(325)	
10	Balancing Pool	-	-	-	
11	Total	\$ 136,216	\$ 133,071	\$ (3,145)	
12					
13	WHEELING				
14	Wheeling Nomination (MW months)				
15	Okanagan Point of Interconnection	2,430	2,490	60	
16	Creston	432	444	12	
17					
18	Wheeling Expense				
19	Okanagan Point of Interconnect	\$ 4,374	\$ 4,590	\$ 216	
20	Creston	507	534	27	
21	Other	48	48	-	
22	Total	\$ 4,928	\$ 5,171	\$ 243	
23					
24	WATER FEES				
25	Plant Entitlement Use in previous year (GWh)	1,617	1,568	(49)	
26					
27	Water Fees	\$ 10,328	\$ 10,208	\$ (120)	
28					
29	Total	\$ 151,472	\$ 148,450	\$ (3,022)	

The small increase for Brilliant over 2017 projected is due to increased rates and a true-up for prior year's actual costs and the increase for the Waneta Expansion is attributable to an increase in the rates and a decrease in surplus sales¹⁹.

One issue of note is that between 2017 and 2018 there is a decrease in market purchases and the increase in PPA usage which is more expensive²⁰. Various parties pursued this issue in IRs.²¹ FBC's evidence is that this change is due to the fact that the 2018 forecast only includes those market purchases for 2018 that it was able to execute prior to filing²², and the utility acknowledged that there may be additional savings opportunities. It has included a reduction in PPA costs of \$2 M to allow for this possibility: a reduction BCOAPO notes is not without precedent given that an identical one was included in last year's revenue requirement calculation as well.

In response to a CEC IR, FBC acknowledged that the updated savings estimate for 2017 based on increased market purchases is \$3.356 M.²³ However, in another IR response the Utility pointed out that savings are highly dependent on changeable market conditions²⁴, a caveat BCOAPO accepts.

¹⁹ Exhibit B-2, page 39.

²⁰ Exhibit B-2, page 39.

²¹ BCMEU 6.1, BCOAPO 17.1-17.3 and CEC 30.1.

²² BCOAPO 17.2.

²³ CEC 30.2.

²⁴ BCOAPO 17.3.

We accept the Utility’s forecast including the \$2M estimate of additional market savings knowing that if the actuals are higher the benefit will flow through to customers via the deferral accounts.

OTHER REVENUE

The 2018 Other Revenue is higher than the approved level for 2017 but lower than the currently projected 2017 level.²⁵

Table 5-1: Other Revenue (\$ millions)

Line No.	Description	Approved 2017	Projected 2017	Forecast 2018
1	Apparatus and Facilities Rental	\$ 4.576	\$ 4.598	\$ 4.736
2	Contract Revenue	1.865	1.726	1.769
3	Transmission Access Revenue	1.179	1.179	1.170
4	Interest Income	0.024	0.022	0.016
5	Connection Charges	0.270	0.456	0.368
6	Other Recoveries	0.142	0.999	0.356
7	Total	<u>\$ 8.056</u>	<u>\$ 8.980</u>	<u>\$ 8.416</u>

This variation is not necessarily a concern and BCOAPO notes that the largest root cause is the “Other Recoveries” amount. The 2017 Projected and 2018 Forecast are expected to be higher than 2017 Approved due to management fees that will be earned in 2017 and 2018 on construction work for a third party. This income is expected to be \$1.072 million, with approximately 80% earned in 2017 and the remaining 20% earned in 2018.²⁶

BCOAPO accepts FBC’s Other Revenue forecast as filed.

PBR FORMULA DRIVERS

There are two PBR formula drivers:

- Customer Growth
- Inflation

FBC calculated its customer growth factor to be 0.629 in the Table below²⁷:

²⁵ Exhibit B-2, page 42.

²⁶ Exhibit B-2, page 43.

²⁷ Exhibit B-2, page 19.

Table 2-2: Average Customer (AC) Growth Factor Calculation

	Customer Count	12 Month Average Customers	AC Factor @50%	PBR Year
Jul-15	130,846			
Aug-15	130,795			
Sep-15	131,131			
Oct-15	131,209			
Nov-15	131,754			
Dec-15	131,883			
Jan-16	132,080			
Feb-16	132,202			
Mar-16	132,041			
Apr-16	131,955			
May-16	131,952			
Jun-16	132,097	131,662		
Jul-16	132,421			
Aug-16	132,618			
Sep-16	132,682			
Oct-16	133,019			
Nov-16	133,140			
Dec-16	133,550			
Jan-17	133,452			
Feb-17	133,582			
Mar-17	133,543			
Apr-17	133,785			
May-17	133,862			
Jun-17	134,152	133,317	0.629%	2018

The inflation factor calculation was updated on October 3, 2017 to include the BC-AWE results for June 2017. This increases the overall formula adjustment factor from 1.282% as used in the original Application to 1.304%.²⁸ BCOAPO has checked this new formula adjustment factor and accepts the math as accurate.

We accept the PBR formula factors used by FBC in this Application.

O&M

O&M in this PBR is a combination of the Formula O&M and the O&M that is outside the formula.²⁹

²⁸ Updated Section 11, Schedule 20.

²⁹ Exhibit B2, page 45.

Table 6-1: 2018 O&M Expense

Line No.	Description	2018	Reference
1	Formula O&M	\$ 54.764	Table 6.2 Line 6
2	Forecast O&M	3.815	Table 6.3 Line 6
3	Total Gross O&M	58.579	
4	Capitalized Overhead (15%)	(8.787)	Section 11, Sch. 20
5	Net O&M	\$ 49.792	

Formula O&M

For 2018, the annual operating and maintenance expense under the formula is calculated as:

$$2016 \text{ Approved formula O\&M} \times [1 + \text{Net Inflation Factor}] \times [1 + \text{Customer Growth Factor}]$$

The calculation is set out below from the Application³⁰ but needs to be adjusted for the new “factor” which would yield \$54.776 k.³¹

Table 6-2: Calculation of 2018 Formula O&M

Line No.	Description		Reference
1	2017 Approved Formula O&M	\$ 54.071	FBC 2017 Rates Evidentiary Update Filing Sch 21
2			
3	Net Inflation Factor	0.649%	Section 2 Table 2-3
4	Customer Growth Factor	0.629%	Section 2 Table 2-2
5			
6	2018 Formula O&M	\$ 54.764	Line 1 x (1 + Line 3) x (1 + Line 4)

O&M Outside Formula

The O&M outside the formula is comprised of the following³².

³⁰ Exhibit B-2, page 46.

³¹ Update, Section 11, Schedule 20.

³² Exhibit B-2, page 46.

Table 6-3: 2018 Forecast O&M (\$ millions)

Line No.	Description	Approved 2017	Projected 2017	Forecast 2018
1	Pension/OPEB (O&M Portion)	\$ 3.267	\$ 3.267	\$ 2.659
2	Insurance Premiums	1.327	1.267	1.265
3	Advanced Metering Infrastructure Project	(1.126)	(1.126)	(1.139)
4	Mandatory Reliability Standards Incremental O&M	0.050	0.050	1.070
5	Upper Bonnington Units 3 and 4 Annual Inspection	(0.040)	(0.040)	(0.040)
6	Forecast O&M	<u>\$ 3.478</u>	<u>\$ 3.418</u>	<u>\$ 3.815</u>

Overall, pension and OPEB expense for 2018 is forecast to be \$0.517 million lower than what was approved for 2017. This decrease is primarily due to lower amortization of net actuarial losses from prior years, and higher expected return on assets partially offset by the higher service and interest costs.³³

Insurance premiums are estimated based on the known annual premiums for the first half of 2018³⁴: a reasonable estimation methodology in our view.

Advanced Metering (AMI) savings are net savings after allowing for incremental AMI costs and gross savings. The forecast costs are roughly equivalent to those in the CPCN but the savings are less and pages 48-49 of the Application outline the reasons for the lower savings.

Table 6-5: AMI Costs and Savings (\$ millions)

Line No.	2014-2016			2017			2018		
	Actual (a)	Approved (b)	CPCN ⁽¹⁾ (c)	Projected (d)	Approved (e)	CPCN ⁽¹⁾ (f)	Forecast (g)	CPCN ⁽¹⁾ (h)	
1									
2									
3									
4	AMI Costs	3.330	3.822	4.867	1.992	1.992	1.925	2.015	1.960
5	AMI Savings	(4.019)	(4.570)	(6.469)	(3.118)	(3.118)	(3.970)	(3.153)	(4.424)
6	Net AMI Costs/(Savings)	(0.689)	(0.748)	(1.602)	(1.126)	(1.126)	(2.045)	(1.138)	(2.464)
7									

8 ⁽¹⁾ CPCN estimates adjusted to include reclassification of software from capital pursuant to Order G-13-14

MRS incremental operating expenses are higher than in 2017 due to the adoption of new standards plus a scheduled compliance audit³⁵.

³³ Exhibit B-2, page 47.

³⁴ Exhibit B-2, page 47; ICG 9.1 and CEC 32.1.

³⁵ Exhibit B-2, page 49.

Table 6-6: MRS Incremental O&M Expense (\$ millions)

Line No.	Description	Approved 2017	Projected 2017	Forecast 2018
1	Assessment Report No. 8	\$ 0.050	\$ 0.050	\$ 0.540
2	Assessment Report No. 10	-	-	0.180
3	2018 Compliance Audit	-	-	0.350
4	Forecast O&M	\$ 0.050	\$ 0.050	\$ 1.070

The Compliance audit is not excluded from the formula on the basis it is a Z-factor but rather on the same basis that the PBR decision established that the 2015 Compliance Audit should be excluded.³⁶

Earlier in this process, a question arose as to why Assessment Report 10 was included as a Z-factor since it is below the materiality threshold (\$0.301 M). However, in response to a BCUC IR, FBC noted that this relatively modest amount is only the cost of the assessment report and that ongoing compliance will exceed the threshold.³⁷ Then, at the Workshop, Mr. Curtis Klashinsky indicated that the “preliminary high level estimate” for this assessment report was \$3.3 million³⁸: a figure that would certainly qualify for the proposed treatment provided the O&M costs meet the financial eligibility criteria. Unfortunately, when Ms. Worth pressed Mr. Klashinsky about the distribution of that amount as between O&M and Capital, he was unable to provide that detail or the timing of the spending on O&M between now and October 1, 2020.³⁹

As a result of FBC’s inability to provide sufficient evidentiary support to justify its suggestion that the \$0.301M associated with Assessment Report 10 qualifies as a Z-factor, BCOAPO does not support FBC’s proposed treatment of this particular O&M expense.

The Upper Bonnington Old Units (UBO) Refurbishment project commenced in 2017. FBC plans to refurbish UBO Unit 3 in 2017, and the refurbishment of Unit 4 will be conducted in 2018. The Company will not carry out the annual inspections on the units while they are out of service for refurbishment resulting in an estimated savings of \$0.040 million per unit⁴⁰.

³⁶ BCUC 1.1.

³⁷ BCUC 24.2.

³⁸ Transcript, page 82, ll 11-12.

³⁹ Transcript, page 85, line 25 to page 89, line 9.

⁴⁰ Exhibit B-2, page 51; and CEC 33.1 & 33.2.

Aside from BCOAPO's objection to FBC's proposed Z-factor treatment of the O&M costs associated with Assessment Report 10, we submit the forecast O&M is reasonable.

RATE BASE

FBC's Capital Spending for 2018 is a combination of formulaic spending and spending outside the formula.⁴¹

Table 7-1: 2018 Regular Capital Expenditures (\$millions)

Line No.	Description		Reference
1	Formula Capital Expenditures	\$ 43.809	Table 7.2 Line 6
2	Forecast Capital Expenditures	3.945	Table 7.3 Line 4
3	Total Regular Capital Expenditures	<u>\$ 47.754</u>	

Formulaic Capital Spending

The updated calculation of formula-based capital spending is set out below⁴²:

**CAPITAL EXPENDITURES
FOR THE YEAR ENDING DECEMBER 31, 2018
(\$000s)**

Line No.	Particulars (1)	CapEx (2)	F
1	2013		
2	Base	\$ 41,875	
3	2014		
4	Net Inflation Factor	100.758%	
5	Formula Capex	42,193	
6	2015		
7	Net Inflation Factor	100.452%	
8	Formula Capex	42,384	
9	2016		
10	Net Inflation Factor	101.155%	
11	Formula Capex	<u>\$ 42,874</u>	
12	2017		
13	Net Inflation Factor	100.886%	
14	Formula Capex	<u>\$ 43,254</u>	
15	2018		
16	Net Inflation Factor	101.304%	
17	Formula Capex	<u>\$ 43,818</u>	

Capital Spending Outside the Formula

⁴¹ Exhibit B-2, page 55.

⁴² Update, Section 11, Schedule 4.

FBC's Capital Spending Outside of the Formula consists of⁴³:

Table 7-3: 2018 Forecast Capital Expenditures (\$ millions)

Line No.	Description	Approved 2017	Projected 2017	Forecast 2018
1	Pension/OPEB (Capital Portion)	\$ 3.539	\$ 3.539	\$ 3.630
2	AMI Sustainment Capital	0.408	0.408	0.265
3	Mandatory Reliability Standards Incremental Capital	1.350	1.349	0.050
4	Forecast Capital Expenditures	<u>\$ 5.297</u>	<u>\$ 5.296</u>	<u>\$ 3.945</u>

BCOAPO has reviewed FBC's evidence on this issue and it does not object to these specific aspects of the Utility's Capital Spending Outside the Formula.

CPCN Projects

FBC's spending on CPCN's is also forecast outside of the formula. For 2018 there are three such projects⁴⁴:

**CAPITAL EXPENDITURES TO PLANT RECONCILIATION
FOR THE YEAR ENDING DECEMBER 31, 2018
(\$000s)**

Line No.	Particulars (1)	2018 (2)	Cross Reference (3)
1	CAPITAL EXPENDITURES		
2			
3	Formula Capital Expenditures	\$ 43,818	Schedule 4, Line 17, Column 4
4	Forecast Capital Expenditures	3,945	Schedule 4, Lines 21 to 23, Column 3
5	Total Regular Capital Expenditures	<u>\$ 47,763</u>	
6			
7	CPCN and Special Projects		
8	Corra Linn Spillway Gate Replacement	20,615	Schedule 4, Line 24, Column 3
9	Ruckles Substation Rebuild	2,238	Schedule 4, Line 25, Column 3
10	Upper Bonnington Old Units Refurbishment	7,092	Schedule 4, Line 26, Column 3
11	Total CPCN and Special Projects	<u>\$ 29,945</u>	
12			
13	Total Capital Expenditures	<u>\$ 77,708</u>	
14			
15			

BCOAPO has no issue with the inclusion of CPCN projects as part of the Utility's Spending Outside the Formula at this time.

⁴³ Exhibit B-2, page 56.

⁴⁴ Exhibit B-2-1, Section 11, Schedule 5.

Adjustment to 2018 Opening In-Service Plant

BCOAPO notes that FBC's capital spending for 2016 and 2017 exceeded projected capital spending for the two years by 39.08%⁴⁵: a significant variance by any measure. In accordance with the PBR framework, the amount by which the spending exceeded the 10% deadband (\$11.268 M) is excluded from the ESM calculations for 2017 but included in the 2018 opening rate base. This rate base adjustment is shown in Section 11, Schedule 2. The actual vs. projected spending is shown below⁴⁶.

Table 1-2: Capital Expenditures 2014 to 2017 (\$ millions)

	2014			2015			2016		
	Actual	Formula	Variance	Actual	Formula	Variance	Actual	Formula	Variance
Formula Capital	\$ 42,885	\$ 42,193	\$ 0,472	\$ 44,791	\$ 42,394	\$ 2,437	\$ 45,838	\$ 42,874	\$ 2,964
Pension/CPSE	6,396	6,396	-	4,253	4,253	-	3,674	3,674	-
Total	\$ 49,281	\$ 48,589	\$ 0,472	\$ 49,044	\$ 46,647	\$ 2,437	\$ 49,512	\$ 46,548	\$ 2,964
Variance			0.9%			5.1%			6.3%

	2017			Cumulative		
	Forecast	Formula	Variance	Actual	Formula	Variance
Formula Capital	\$ 58,580	\$ 43,254	\$ 15,306	\$ 191,854	\$ 173,705	\$ 21,149
Pension/CPSE	3,539	3,539	-	17,882	17,882	-
Total	\$ 62,119	\$ 46,793	\$ 15,306	\$ 209,736	\$ 191,587	\$ 21,149
Variance			32.71%			11.22%

FBC attributed the high level of actual capital spending in 2017 (32.71% over approved) to⁴⁷:

- System improvements to accommodate customer growth;
- The forced relocation of transmission and distribution infrastructure due to the widening of Highway 97 near Kelowna by the Ministry of Transportation and Infrastructure;
- Customer-driven modifications at RG Anderson Terminal associated with the City of Penticton's distribution voltage conversion project; and
- The increased cost of equipment and supplies purchased from the United States due to the unfavourable exchange rate.

BCUC 10.3 asked about FBC actions to avoid the impacts of unfavourable exchange rates and the Utility's response indicated that products and services were procured through competitive sourcing processes where selection is based on the best price that meets FBC's requirements. During the Workshop, Ms. Worth followed up on this issue asking questions designed to determine whether the Utility had built into its cost projections where there is an anticipated purchase from a foreign supplier an allowance to offset any negative effects of currency fluctuations, and if so, how those were generated. Mr. Chernikhowsky on behalf of the Utility confirmed that there was no such contingency built into its projections.⁴⁸

⁴⁵ BCOAPO 4.1.

⁴⁶ Exhibit B-2, page 13.

⁴⁷ Exhibit B-2, page 7.

⁴⁸ Transcript, page 46, l 5 to page 47, l 9.

The Highway 97 and RG Anderson Terminal projects both involved considerable customer contributions:

- The \$3.6 M spent on the Terminal in 2017 was fully customer funded
- Highway 97 is partially funded – total project is \$4.06 M of which \$0.762 M is customer funded. Note: Spending in 2017 is \$0.611 M.

In BCUC 8.1, FBC explained that under the current PBR plan gross capital expenditures are subject to the capital formula but capital contributions are based on “actuals”. BCOAPO notes that an alternative approach could have been to also include capital contributions in the formula. given that contributions are based on the nature of the project and thus subject to great uncertainty. In our submission, it is likely better to exclude them.

In-Service Additions

Based on the updated capital expenditure forecast the in-service additions for 2018 are⁴⁹:

16	RECONCILIATION OF CAPITAL EXPENDITURES TO PLANT		
17			
18	Regular Capital Expenditures	\$	47,763
19	Add - Capitalized Overheads		8,789
20	Add - Direct Overheads		5,000
21	Add - AFUDC		692
22	Less: Removal costs		(2,577)
23	Gross Capital Expenditures	\$	59,667
24	Change in Work in Progress		-
25	Total Additions to Plant	\$	59,667
26			
27			
28	CPCN and Special Projects	\$	29,945
29	Add - AFUDC		2,114
30	Less: Removal costs		(1,381)
31	Gross Capital Expenditures		30,678
32	Change in Work in Progress		(5,391)
33	Total Additions to Plant	\$	25,287
34			
35	Grand Total Additions to Plant	\$	84,954

CPCN additions to plant are related to the Kootenay Operations Centre and UBO #3 which were declared in-service in 2017 and thus added to rated base for 2018.⁵⁰

⁴⁹ Exhibit B-2-1, Section 11, Schedule 5.

⁵⁰ BCOAPO 7.1.

BCOAPO has reviewed the evidence and has no issue with FBC's In-Service Additions.

FINANCING AND RATE OF RETURN

FBC has prepared the Application using a capital structure of 60 percent debt and 40 percent equity and a Return on Equity (ROE) of 9.15 percent as approved by BCUC Orders G-75-13 and G-47-14.⁵¹

FBC bases its interest rate forecasts on available projections made by Canadian Chartered banks.⁵² Short-term interest rates forecast for 2018 are higher than those projected for 2017 in part because of higher Banker Acceptance rate forecasts but also standby fees and financing fees for 2018 are spread over a small amount of debt issued.⁵³

FBC is planning on issuing between \$50 M and \$100 M in long term debt in the 4th quarter of 2017. It is expected the rate will be between 3.8% and 3.9%⁵⁴ and the Application assumed \$75 M at 3.8%.⁵⁵ BCOAPO notes that If the borrowing is concluded prior to the compliance filing for 2018 rates, the Revenue Requirement will be updated.

BCOAPO has no issues with the Financing Costs included in this Application.

TAXES

FBC's tax costs include property and income taxes. Property taxes are forecast to increase by 3.9% over approved 2017 levels as a result of changes in tax rates, changes in revenues used to calculated grants in lieu of taxes and changes in assessed values.⁵⁶ Income tax is forecast to decrease in 2018 by \$1.741 million or 16.0 percent compared to the 2017 Approved. This decrease is primarily due to a decrease in amortization expenses driven by deferral accounts, in particular the Celgar Interim Billing Adjustment account which was fully amortized in 2017, and

⁵¹ Exhibit B-2, page 64.

⁵² Exhibit B-2, page 65.

⁵³ Exhibit B-2, page 66.

⁵⁴ BCOAPO 6.1.

⁵⁵ Exhibit B-2, page 64.

⁵⁶ Exhibit B-2, pages 68-69.

an increase in deductible temporary differences associated with pensions and OPEBs, partly offset by an overall increase in revenues.⁵⁷

With respect to income taxes, the tax rates used in the calculation are based on those currently in effect and the increase is primarily due to increases in the amortization of deferrals and the differences between capital cost allowances and depreciation.⁵⁸

Overall, BCOAPO does not have an issue with FBC's forecast of taxes as included in the proposed 2018 Revenue Requirement.

EARNINGS SHARING

The earnings sharing calculation results in \$0.831 M being returned to customers.⁵⁹

Table 10-1: Summary of Earnings Sharing to be Returned in 2018 (\$ millions)

Line No.	Description	After-tax Amount	Reference
1	2017 Projected Sharing	\$ (0.263)	Table 10-2, Line 46
2	Actual Customer Growth Adjustment	0.004	Table 10-3, Line 18
3	2016 Projected vs. Actual Ending Balance True-Up	(0.356)	Table 10-4, Line 3
4			
5	2017 After-Tax Amount Returned to Customers	<u>\$ (0.515)</u>	
6	2017 Pre-Tax Amount Returned to Customers	<u>\$ (0.831)</u>	

The 2017 projected sharing is the result of a favourable variance associated with O&M and an unfavourable variance for capital spending.⁶⁰

BCOAPO has no issue with the applied-for earnings sharing calculations.

DEFERRAL ACCOUNTS

FBC is seeking approval for five new deferral accounts. Four are related to regulatory proceedings⁶¹:

⁵⁷ Exhibit B-2, page 69.

⁵⁸ Exhibit B-2, page 54.

⁵⁹ Exhibit B-2, page 71.

⁶⁰ Exhibit B-2, page 72.

- The Community Solar Pilot Project⁶²;
- The 2020 Revenue Requirements Application;
- The Multi-Year DSM Expenditure Schedule;
- Tariff Applications; and
- One related to FBC's share of the 2018 Joint Use Pole audit.⁶³

All five are deemed to be “benefit matching accounts” aimed at recovering the costs over the future period where benefits accrue.⁶⁴

BCOAPO has no issues with FBC's proposed new deferral accounts.

SERVICE QUALITY INDICATORS

Safety SQIs

There are two safety SQIs: i) Emergency Response Time (ERT) and ii) All Injury Frequency Rate (AIFR).

FBC's ERT results for 2016 and first half of 2017 are above the threshold and at/above the benchmark values.⁶⁵

Table 13-2: Historical Emergency Response Time

Description	2009	2010	2011	2012	2013	2014	2015	2016	June 2017 YTD
Results	92%	95%	92%	91%	94%	91%	92%	97%	93%
Benchmark	n/a	n/a	n/a	n/a	n/a	93%	93%	93%	93%
Threshold	n/a	n/a	n/a	n/a	n/a	90.6%	90.6%	90.6%	90.6%

The Utility's AIFR annual results for 2016 and first half of 2017 are below (better than) the benchmark value.

Table 13-3: Historical All Injury Frequency Rate Results

Description	2009	2010	2011	2012	2013	2014	2015	2016	June 2017 YTD
Annual Results	1.41	1.72	1.48	1.72	2.82	3.21	1.54	1.15	1.33
Three year rolling average	2.00	2.00	1.54	1.64	2.01	2.58	2.52	1.97	1.34
Benchmark	n/a	n/a	n/a	n/a	n/a	1.64	1.64	1.64	1.64
Threshold	n/a	n/a	n/a	n/a	n/a	2.39	2.39	2.39	2.39

⁶¹ Exhibit B-2, page 2.

⁶² BCUC 25.2.

⁶³ BCUC 25.3 and BCOAPO 26.2.

⁶⁴ Exhibit B-2, page 117.

⁶⁵ Exhibit B-2, page 128.

Responsiveness to Customer Need SQIs

With respect to meeting customers' needs, FBC has four formal SQIs and two informational SQIs.

With respect to the formal SQIs:

- First Contact Resolution – Both 2016 and year to date 2017 are above (better than) the benchmark.⁶⁶

Table 13-4: Historical First Contact Resolution Levels

Description	2009	2010	2011	2012	2013	2014	2015	2016	June 2017 YTD
Annual Results	n/a	n/a	n/a	n/a	73%	73%	76%	79%	79%
Benchmark	n/a	n/a	n/a	n/a	n/a	78%	78%	78%	78%
Threshold	n/a	n/a	n/a	n/a	n/a	72%	72%	72%	72%

- Billing Index - Both 2016 and year to date 2017 are below (better than) the benchmark.⁶⁷

Table 13-5: Historical Billing Index Results

Description	2009	2010	2011	2012	2013	2014	2015	2016	June 2017 YTD
Annual Results	n/a	n/a	n/a	n/a	0.10	2.34	0.39	0.57	0.15
Benchmark	n/a	n/a	n/a	n/a	n/a	5.0	5.0	5.0	5.0
Threshold	n/a	n/a	n/a	n/a	n/a	5.0	5.0	5.0	5.0

- Meter Reading Accuracy - Both 2016 and year to date 2017 are above (better than) the benchmark.⁶⁸

Table 13-7: Historical Meter Reading Accuracy Results

Description	2009	2010	2011	2012	2013	2014	2015	2016	June 2017 YTD
Annual Results	98%	98%	98%	98%	51%	96%	96%	99%	99%
Benchmark	n/a	n/a	n/a	n/a	n/a	97%	97%	97%	97%
Threshold	n/a	n/a	n/a	n/a	n/a	94%	94%	94%	94%

- Telephone Service Factor (Non-Emergency) – Both the 2016 and year to date 2017 values are at the benchmark value.⁶⁹

⁶⁶ Exhibit B-2, page 130.

⁶⁷ Exhibit B-2, page 131.

⁶⁸ Exhibit B-2, page 131.

⁶⁹ Exhibit B-2, page 132.

Table 13-8: Historical TSF Results

Description	2009	2010	2011	2012	2013	2014	2015	2016	June 2017 YTD
Annual Results	70%	70%	70%	70%	70%	48%	71%	70%	70%
Benchmark	n/a	n/a	n/a	n/a	n/a	70%	70%	70%	70%
Threshold	n/a	n/a	n/a	n/a	n/a	68%	68%	68%	68%

BCOAPO has reviewed the evidence and it takes no issue with FBC's responsiveness to its formal Customer SQI's.

With respect to the Utility's informal SQIs

- o Customer Satisfaction – there was a slight improvement in 2016 and then it returned to earlier historic levels in year to date 2017.⁷⁰

Table 13-9: Historical Customer Satisfaction Results

Description	2009	2010	2011	2012	2013	2014	2015	2016	June 2017 YTD
Annual Results	8.6	8.8	8.7	8.4	8.0	8.1	8.1	8.2	8.1
Benchmark	n/a								
Threshold	n/a								

- o Telephone Abandon Rate – values have been increasing since 2015.⁷¹

Table 13-10: Historical Telephone Abandon Rates

Description	2009	2010	2011	2012	2013	2014	2015	2016	June 2017 YTD
Annual Results	2.2%	1.9%	1.7%	1.9%	2.0%	12.4%	2.7%	3.9%	4.4%
Benchmark	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Threshold	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

BCOAPO notes that the Telephone Abandon Rate is the single area where FBC's reported SQI performance is deteriorating. FBC attempted to explain away this deterioration in BCOAPO 28.3 and during the Workshop explained that this increasing value is not necessarily bad because customers who hang up after their issues are addressed via IVR messaging or who hang up for other, unrelated reasons are treated as abandoned calls. With respect, there is no evidence to support FBC's reliance upon those factors as an explanation for the deterioration in its TAR.

Reliability SQIs

There are two formal measures and one informational indicator regarding reliability.

⁷⁰ Exhibit B-2, page 133.

⁷¹ Exhibit B-2, page 134.

With respect to the two formal measures:

- SAIDI results exceeded both threshold and benchmark in 2016 and exceeded the threshold in the first half of 2017.⁷²

Table 13-11: Historical SAIDI Results

Description	2009	2010	2011	2012	2013	2014	2015	2016	June 2017 YTD
Three year rolling average results	2.40	2.51	2.33	2.22	1.94	2.09	2.15	2.18	2.36
Benchmark	n/a	n/a	n/a	n/a	n/a	2.22	2.22	2.22	2.22
Threshold	n/a	n/a	n/a	n/a	n/a	2.62	2.62	2.62	2.62

- SAIFI results exceeded both threshold and benchmark in 2016 and the first half of 2017.⁷³

Table 13-12: Historical SAIFI Results

Description	2009	2010	2011	2012	2013	2014	2015	2016	June 2017 YTD
Three year rolling average results	1.87	1.96	1.71	1.64	1.31	1.39	1.49	1.51	1.47
Benchmark	n/a	n/a	n/a	n/a	n/a	1.64	1.64	1.64	1.64
Threshold	n/a	n/a	n/a	n/a	n/a	2.50	2.50	2.50	2.50

BCOAPO has no concerns with FBC's performance on these two formal measures.

With respect to the informal measure, the 2016 and 2017 year-to-date values are not as favourable as those for 2015. Poorer results in both years are attributable to equipment failures at the over 100-year old Upper Bonnington plant⁷⁴

Please do not hesitate to contact the undersigned should you have any questions about these submissions..

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

BC Public Interest Advocacy Centre

Original on file signed by:

Leigha Worth
Barrister & Solicitor
Executive Director

Kate Feeney
Barrister & Solicitor

⁷² Exhibit B-2, page 135.

⁷³ Exhibit, B-2, page 136.

⁷⁴ Exhibit B-2, pages 136-137.