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October 1, 2020

Industrial Customers Group
c/o #301 – 2298 McBain Avenue
Vancouver, BC V6L 3B1

Attention: Mr. Robert Hobbs

Dear Mr. Hobbs:

Re: FortisBC Inc. (FBC)

Project No. 1599119

Annual Review for 2020 and 2021 Rates (Application)

Response to the Industrial Customers Group (ICG) Information Request (IR) No. 1

On August 19, 2020, FBC filed the Application referenced above. In accordance with the British Columbia Utilities Commission Order G-211-20 setting out the Regulatory Timetable for review of the Application, FBC respectfully submits the attached response to ICG IR No. 1.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC INC.

Original signed:

Diane Roy

Attachments

cc (email only): Commission Secretary
Registered Parties

1 Reference: Exhibit B-2, Section 1.1.1, p. 2

"FBC is proposing to set permanent 2020 rates at the existing interim levels and to capture the revenue deficiency greater than 1.00 percent approved as interim in the existing 2018-2019 Revenue Surplus deferral account as an offset to prior years' revenue surpluses."

1.1 Please provide revenue deficiencies and year over year rate increases for the five year period 2017 to 2021 both before and after the use of the 2019-2019 Revenue Surplus deferral account?

Response:

The 2017 to 2021 year over year rate increases before and after the use of the 2018-2019 Revenue Surplus deferral account are provided in the table below.

	2017	2018	2019	2020	2021	Average
Rate increase after Revenue Surplus deferral						
Deficiency (Surplus)	9.739	-	-	3.587	23.543	
Revenue at Existing Rates	352.389	356.340	370.534	358.668	369.643	
Rate Increase after Revenue Surplus Deferral	2.76%	0.00%	0.00%	1.00%	6.37%	2.03%
Rate increases before Revenue Surplus deferral						
Deficiency (Surplus)	9.739	0.896	(5.633)	6.913	24.954	
Revenue at Existing Rates	352.389	356.340	370.534	358.668	369.643	
Rate Increase before Revenue Surplus Deferral	2.76%	0.25%	-1.52%	1.93%	6.75%	2.03%

1.2 Reference Exhibit B-2, Section 1.2, p. 2, item 2

1.3 A permanent rate increase of 6.37%, effective January 1, 2021

1.4 Please file the Bonbright third principle regarding rate stability and predictability.

Response:

FBC assumes that the question references the, "Criteria of a Sound Rate Structure" as included in "Principles of Public Utility Rates" by James C. Bonbright, first published by the Columbia University Press in 1961. The criterion related to rate stability is number 5 in the following list from page 291 of the publication. FBC is not proposing changes to rate structures in this Application.

CRITERIA OF A SOUND RATE STRUCTURE 291

one presentation. The sequence of the eight items is not meant to suggest any order of relative importance.

1. The related, "practical" attributes of simplicity, understandability, public acceptability, and feasibility of application.
2. Freedom from controversies as to proper interpretation.
3. Effectiveness in yielding total revenue requirements under the fair-return standard.
4. Revenue stability from year to year.
5. Stability of the rates themselves, with a minimum of unexpected changes seriously adverse to existing customers. (Compare "The best tax is an old tax.")
6. Fairness of the specific rates in the apportionment of total costs of service among the different consumers.
7. Avoidance of "undue discrimination" in rate relationships.
8. Efficiency of the rate classes and rate blocks in discouraging wasteful use of service while promoting all justified types and amounts of use:
   (a) in the control of the total amounts of service supplied by the company:
   (b) in the control of the relative uses of alternative types of service (on-peak versus off-peak electricity, Pullman travel versus coach travel, single-party telephone service versus service from a multi-party line, etc.).

1.5 Please file evidence, if any, in the 2020-2014 MRP proceeding that forecast January 1, 2021 rates?

Response:

In response to BCUC IR2 161.3 in the FortisBC Multi-Year Rate Plan for 2020 to 2024 (MRP) proceeding[1], FBC provided indicative revenue requirements and rate changes for the three-year period 2020-2022. Please refer to Attachment 1.5 for a copy of this IR response.

The 2021 indicative rate increase provided in response to BCUC IR2 161.3 was 4.6 percent. FBC notes, however, that the indicative revenue requirement and rate analysis provided in that IR response also forecast a 2020 rate increase of 4.0 percent, which is higher than the 2020 permanent rate increase applied for in this Application of 1.0 percent. The indicative 2020 rate increase of 4.0 percent is also higher than the rate increase which would have resulted if FBC

[1] MRP Application, Exhibit B-12.

did not propose to utilize the 2018-2019 Revenue Surplus deferral account to maintain 2020 permanent rates at interim levels (i.e., the rate increase would be 1.93 percent for 2020).

1.6 Please file provincial government policy regarding an annual rate increase of 5% or more?

Response:

FBC is unaware of any provincial government policy regarding an annual rate increase of 5 percent or more.

1.7 Please identify any expected increases in customer's bills of 7% or more that will be attributable to an across the board increase of 6.37%?

Response:

FBC is not aware of any circumstances where a general increase in rates of 6.37 percent could lead to a bill increase of 7 percent or more, assuming no change in consumption.

1.8 Please comment on whether in this proceeding the delay of capital expenditures should considered in order to reduce the risk of rate shock?

Response:

FBC does not consider there to be a risk of "rate shock" associated with the 2021 proposed permanent rate increase of 6.37 percent, as this increase is significantly less than the generally accepted regulatory concept of "rate shock", which has been previously referenced by the BCUC[2] as a greater than 10 percent increase in rates in one year.

With regard to ICG's suggestion that a potential delay in capital expenditures should be considered, FBC does not consider such an approach reasonable nor would any such delay achieve ICG's goal of reducing the risk of rate shock. As outlined in Section 7 of the Application, FBC's capital expenditures are comprised of the following general categories:

[2] Thermal Energy System (TES) Regulatory Framework Guidelines, Order G-27-15, Appendix A, p. 22.

- Regular growth, sustainment and other capital expenditures, net of CIAC;
- Flow-through capital expenditures; and
- Major projects capital expenditures.

The level of expenditures under the first category (regular capital expenditures) has already been approved by the BCUC for the years 2020 through 2022 as part of the MRP Decision and therefore the revenue requirement impacts of these capital expenditures are already approved components of the 2021 rate.

FBC has not forecast any flow-through capital expenditures for 2021, thus there is no 2021 rate impact associated with this expenditure category.

With the exception of the Playmor Project, all other expenditures in the major project category have received approval from the BCUC in previous proceedings and the projects are under way. Additionally, if approved, the capital expenditures associated with the Playmor Project would have no impact on 2021 rates, as the Playmor Project is forecast to be in service in 2021 and therefore the costs would not enter rate base until 2022[3].

Accordingly, even under a scenario where a risk of rate shock was a possibility (which, as explained above, is not the case), the delay of capital expenditures would not mitigate against this risk given the treatment of capital expenditures under the approved MRP rate-setting framework. Further, in situations where there is an expectation of significant rate increases or large rate swings, FBC's preferred mitigation approach is to smooth rate changes through the use of deferral accounts as opposed to deferring capital expenditures and potentially compromising the safety of the FBC system or not connecting customers that need service.

The mitigation of rate increases through the use of deferral accounts is generally employed when there is some expectation of future rate decreases or significantly lower rate increases. In response to BCMEU IR1 1.7, FBC estimated potential rate increases averaging 3.5 percent for the 2022-2024 period. Given the uncertainty of the future increases, FBC does not propose deferring a portion of the 2021 increase.

[3] See the response to BCUC IR1 14.3 which discusses the inclusion of the Playmor project in rate base.

2 Reference: Exhibit B-2, Section 2.2 Inflation Factor Calculation Summary, p.9 and Table 2-1, p.10

"As shown in Table 2-1 below, the I-Factor has been calculated using the actual CPI-BC and AWE-BC indices from the previous year and the actual labour weighting based on the most recent completed year of actuals."

2.1 Please comment on whether a ratio of 62%:38% ratio of labour to non-labour expenditures overstates the companies' input price inflation in years when growth in the BC-AWE exceeds growth in the BC-CPI?

Response:

The I-Factor was the subject of significant evidence and argument in the MRP proceeding, in which the ICG was a participant. FBC has calculated the I-Factor in accordance with the approach ultimately approved by the BCUC in the MRP Decision.[4] The ratio of 62%:38% labour to non-labour is the result of the BCUC-approved calculation method and represents a reasonable baseline of FBC's labour versus non-labour requirements to use in the calculation of the I-Factor.

2.2 Please file the AUC Decision 2012-237 dated September 12, 2012 page 48, paragraphs 228-229.

Response:

Please refer to Attachment 2.2 for the requested AUC Decision 2012-237 excerpt. Please also refer to FBC's response to ICG IR1 2.1.

2.3 Please calculate the January, 1, 2021 rate increase using a 55:45 ratio of labour to non-labour expenditures and the same actual CPI-BC of 1.596% and AWE-BC data of 5.946% used in Exhibit B-2.

Response:

As stated in response to ICG IR1 2.1, FBC has calculated the I-Factor in accordance with the approach directed by the BCUC in the MRP Decision. Using a ratio of 55:45 labour to non-labour would be contrary to the BCUC's determination in the MRP Decision. However, to be

[4] MRP Decision, p. 48.

responsive to ICG's request, FBC has provided the requested calculation. As outlined in the calculation below, if a 55:45 ratio of labour to non-labour expenditures was applied to the 2021 rate increase, the overall rate increase would decrease by 0.03 percent, from 6.37 percent to 6.34 percent.

		2021 Net Inflation Factor		
			Labour Split	
Line No.		As Filed	Change	Difference
1	**Cost Drivers for O&M**			
2	CPI	1.596%	1.596%	0.000%
3	AWE	5.946%	5.946%	0.000%
4	Labour Split			
5	Non Labour	38.000%	45.000%	7.000%
6	Labour	62.000%	55.000%	-7.000%
7	Inflation Factor for Costs	4.293%	3.989%	-0.304%
8	Productivity Factor	-0.500%	-0.500%	0.000%
9	Net Inflation Factor for Costs	3.793%	3.489%	-0.304%
10				
11	**Inflation Indexed O&M**			
12	2020 Adjusted Base Unit Cost	$ 421	$ 421	$ -
13	Net Inflation Factor	3.793%	3.489%	-0.304%
14	2021 Base Unit Cost	$ 437	$ 436	$ (1)
15				
16	2021 Average Customer Forecast - Rate Setting Purposes	142,045	142,045	-
17				
18	2021 Inflation Indexed O&M	$ 62,073	$ 61,931	$ (142)
19				
20	**Summary of Impact on Rates**			
21	Gross O&M			(142)
22	Capitalized Overheads			21
23	Earned Return			(1)
24	Tax Expense			8
25	Total change			(114)
26				
27	Revenue at Existing Rates			369,643
28				
29	Change in Rate Change			-0.03%

3 Reference: Exhibit B-2, Section 3.3, Table 3-1, p.14

3.1 Please provide the forecast and actual DSM savings from January through June 2020, and explain variances.

Response:

FBC estimates DSM savings to June 2020 at 9,894 MWh compared to a target of 11,481 MWh. Please refer to the response to BCSEA IR1 3.2 for a discussion of expenditure variances in 2020.

4 Reference: Exhibit B-2, Section 3.4.7, Figure 3-11, p.25 and Appendix C2, Section 2, p. 1

"FBC estimates that the implementation of AMI had a positive impact on losses (unaccounted-for energy) by deterring theft of power, mainly from indoor marijuana grow sites. Beginning with the 2016 year, FBC included in its forecast of system losses an adjustment based on estimates developed in the AMI Project CPCN application and subsequently adjusted pursuant to the BCUC's decision on the AMI Project, Order C-7-13."

4.1 Please explain when the reduction in theft of electricity attributable to the AMI project was estimated to have occurred, and whether the reduction in losses from 2013 to 2014 as shown in Figure 3-11 is attributable to the AMI project or some other factor.

Response:

The reduction in theft of electricity attributable to the AMI project was included in FBC's loss forecast beginning in 2016. It is likely that the reduction in losses from 2013 to 2014 is attributable to a combination of factors, including a likely deterrence impact resulting from the ongoing deployment of FBC's AMI project during the referenced period and the BC Hydro Smart Metering Infrastructure project. Both projects created a perception that electricity theft (provincially) was becoming increasingly difficult to hide. Additional factors likely include the reduction in gross load from 3,222 GWh to 3,174 GWh in that period and the associated reduction in technical losses.

5 Reference: Exhibit B-2, Section 4.7, Table 4-4, p. 34

"Wheeling expense includes wheeling service provided by BC Hydro under the Amended and Restated Wheeling Agreement (ARWA) and OATT as needed ..."

5.1 Please file the original Wheeling Agreement and the ARWA, and provide references to Commission decisions approving the ARWA?

Response:

The ARWA and the original Wheeling Agreement were filed as Exhibit B-3 in the "BC Hydro Application for Approval of Rates between BC Hydro and FortisBC Inc. with regards to Rate Schedule 3808, Tariff Supplement No. 3" proceeding, and is available on the BCUC website at the following link:

https://www.bcuc.com/Documents/Proceedings/2013/DOC_35133_B-3_BCH_GWA.pdf

The BCUC decision approving the ARWA is available on the BCUC website at the following link:

https://www.bcuc.com/Documents/Proceedings/2014/DOC_41321_05-06-2014_BCH_PPA-RS%203808-TS-No-2-and-3_Decision.pdf

6 Reference: Exhibit B-2, Section 6.1, p. 39; Section 11, Schedule 20, lines 2-8, and the formula provided in Section 6.2

"In 2020, the Formula O&M is $59.447 million, representing a 6.0 percent increase from the 2019 Formula O&M approved under the 2014-2019 PBR and a 3.2 percent increase from the 2019 Base O&M."

6.1 Please provide a detailed calculation of the 6.0 percent increase referenced above, and identify and compare the 2019 formula inputs to the 2020 formula inputs including the calculation of the 2019 and 2020 Base Unit Cost.

Response:

A detailed calculation of the 6.0 percent increase between 2019 and 2020 Formula O&M is provided below.

Please refer to Attachment 5.2 provided in the response to BCOAPO IR1 5.2 for a copy of the MRP Compliance Filing. The calculation of the 2019 Base O&M per Customer of $412 is shown on Table 4 at page 6. The calculation of the 2020 Base O&M per customer is shown in Table 6-2 of the Application.

Line No.	Particulars		Reference
	(1)	(2)	(3)
1	**2019 Formula O&M**		
2			
3	2018 Formula O&M	$ 54,776	
4			
5	CPI	2.345%	
6	AWE	2.646%	
7	Labour Split		
8	Non Labour	45.000%	
9	Labour	55.000%	
10	CPI/AWE	2.511%	
11	Productivity Factor	-1.030%	
12	Net Inflation Factor for Costs	1.481%	
13			
14	Average Customer Growth	0.888%	
15			
16	Inflation Factor	102.382%	(1 + Line 12) x (1 + Line 14)
17			
18	2019 Formula O&M	$ 56,081	Line 3 x Line 18
19			
20	**2020 Formula O&M**		
21	Adjusted Base Unit Cost O&M	$ 412	
22			
23	CPI	2.692%	
24	AWE	2.881%	
25	Labour Split		
26	Non Labour	38.000%	
27	Labour	62.000%	
28	Inflation Factor for Costs	2.809%	
29	Productivity Factor	-0.500%	
30	Net Inflation Factor for Costs	2.309%	
31	Current Year Unit Cost O&M ($/customer)	$ 422	Line 21 x (1 + Line 30)
32			
33	Average Customer Forecast	140,871	
34			
35	Inflation-Indexed O&M	$ 59,447	Line 31 x Line 33
36			
37	Year over year formula increase	$ 3,366	Line 35 - Line 18
38			
39	Year over year formula %	6.0%	Line 37 / Line 18

6.2 Please provide references (with page numbers) to relevant regulatory decisions and the calculation of the 2019 Approved Base UCOM and the 2020 Approved formula UCOM. Please file compliance applications relevant to the calculation of the 2019 Approved Base UCOM?

Response:

On page 118 of the MRP Decision, the BCUC stated:

> Subject to the adjustments determined by the Panel in Subsection 4.1 above and its determination on the Clean Growth Innovation Fund in Section 5.0, the Panel approves FEI's 2019 Base O&M per customer of $250 and FBC's 2019 Base O&M per customer of $416. FortisBC is directed to file the revised 2019 Base O&M per customer calculations for each of the Utilities as part of its compliance filing relating to this Decision.

The FBC-related adjustment referred to in the above quote is described on page 117 of the MRP Decision, where the BCUC approved 50 percent ($0.040 million) of the incremental O&M funding requested by FBC for stakeholder engagement.

In compliance with the BCUC's directive in the MRP Decision, FBC filed the revised 2019 Base O&M per customer calculation as part of the MRP Compliance Filing, which resulted in a 2019 Base O&M per Customer of $412.[5] Please refer to the response to BCOAPO IR1 5.2 for a copy of the MRP Compliance Filing.

With regard to the 2020 Formula O&M of $59.447 million, the calculation of this amount is derived from the approved formula drivers, as described in Section 2 of the Application, and the approved 2019 Base UCOM, as detailed above and in the MRP Compliance Filing. While the 2020 Formula O&M amount of $59.447 million is a component of FBC's overall 2020 revenue requirement, which FBC is seeking approval of in this Application, the components of the 2020 Formula O&M that determine the 2020 amount have been approved through the MRP Decision.

[5] MRP Compliance Filing, Table 4, p. 6.

7 Reference: Exhibit B-2, Section 7.4, Table 7-4, p. 51 and Section 11, Schedule 5

7.1 Please revise Table 7-4 by adding an additional column for actual 2019 and revise Section 11, Schedule 5 to include Project 2020?

Response:

The requested information pertaining to Table 7-4 is provided in the table below.

Reconciliation of Capital Expenditures to Plant Additions ($millions)

Line No.	Description	Actual 2019	Projected 2020	Forecast 2021	Reference
1	Forecast Capital Expenditures	$ 62.601	$ 93.244	$ 87.573	Table 7-1, Line 1
2	Flow-Through Capital Expenditures	3.010	-	-	Table 7-1, Line 2
3	Total Regular Capital Expenditures	65.611	93.244	87.573	
4					
5	Capitalized Overhead	8.880	9.284	9.767	Table 6-1
6	AFUDC	0.191	0.288	0.542	Section 11, Schedule 5, Line 21
7	Change in Work in Progress	(0.625)	(5.836)	5.717	Section 11, Schedule 5, Line 23
8	Total Regular Additions to Plant	74.057	96.981	103.599	
9					
10	Major Projects Capital Expenditures	23.195	27.341	21.938	Section 11, Schedule 5, Line 27
11	Major Projects AFUDC	1.807	1.960	1.857	Section 11, Schedule 5, Line 28
12	Change in Work in Progress	(10.340)	(8.873)	16.612	Section 11, Schedule 5, Line 31
13	Major Projects Additions to Plant	14.662	20.428	40.407	
14					
15	Plant Additions	$ 88.719	$ 117.409	$ 144.006	

With respect to Section 11, Schedule 5, Order G-166-20 approved the level of FBC's capital expenditures to be incorporated in rates, which is reflected in the financial schedules; therefore, no revision to Schedule 5 is required.

8 Reference: Exhibit B-2, Section 8, p. 67, Financing and Return on Equity

"FBC has prepared this 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 Orders G-129-16 and G-47-14."

8.1 Please calculate an ROE for the test period for FBC by applying the Automatic Adjustment Mechanism (AAM) approved by Order G-75-13 and using current long Canada bond yields and assuming the 3.8% threshold does not apply?

8.2 Please calculate an ROE for the test period for FBC by applying the single variable model used by the Commission prior to 2009 and using current long Canada bond yields?

8.3 Please provide in table format the comparable (FEI) authorized ROE for Alberta, Ontario, Quebec, Nova Scotia and Newfoundland and Labrador. In the same table, please reference the decision and the date of approval of each ROE.

8.4 Please also provide the 10 and 30-year long Canada bond yields as of September of each year from 2009 to 2020 and calculate the spreads between the 10-year and 30-year long Canada bond yields?

8.5 Please comment on the effects of the COVID-19 pandemic on equity valuations, including whether equity return expectations have changed due to the pandemic?

8.6 Please comment on whether investors view current market conditions as dissimilar to those in June 2012?

8.7 Please calculate the January 1, 2021 rate increase with an equity component of 38%?

Response:

FBC respectfully declines to respond to this series of IRs because they are all requesting information that is relevant to a cost of capital proceeding and outside the scope of this Annual Review.

As stated in the Application and quoted by ICG in the above preamble, FBC's capital structure and ROE was approved by the BCUC pursuant to Order G-47-14. In that Order and accompanying Decision, the BCUC determined that it was appropriate for FBC to receive a 40 basis points (bps) premium over the benchmark utility's ROE. Further, the BCUC determined by Order G-129-16 that FortisBC Energy Inc. (FEI) would continue to serve as the benchmark utility and directed that FEI's ROE would remain at 8.75 percent. FBC also notes that ICG references the AAM approved by Order G-75-13; however, in the more recent proceeding regarding FEI's ROE and capital structure, the BCUC determined that the use of the AAM formula is suspended indefinitely (Directive 3 of Order G-129-16).

FBC has applied the current BCUC-approved capital structure and ROE in the calculation of its 2020 and 2021 revenue requirements. FBC submits that a review of its ROE and/or capital structure is outside the scope of this Annual Review and accordingly declines to provide the information requested by ICG.

9 Reference: Exhibit B-2, Appendix B, Section 2.1

"Due to capacity constraints at the station, two potential new large load requests could not be connected at the requested load levels. To accommodate native load growth, load increases for existing commercial/industrial customers and the recent large capacity requests, it is necessary to increase the station capacity."

9.1 Please identify the size of the two potential new large load requests?

Response:

Please refer to the response to BCUC IR1 31.1.

9.2 What is the size threshold for capacity requests to be funded by the customer?

Response:

The requirement for a customer contribution is not triggered by any specific threshold related to capacity. Customer contributions may be required generally, as discussed in Section 4.5 of FBC's Electric Tariff. Additionally, Section 16 of FBC's Electric Tariff discusses cases where an extension is required.

9.3 What was the size of the new load added on 11 Line between Grand Forks and Mawdsley and was the substation funded by the customer in that case?

Response:

The new load connected to 11L is 15 MW. The customer-owned substation was funded entirely by the customer.

9.4 Please explain why this significant project was not identified in the list of capital projects submitted in the response to ICG information request 17.2 in Exhibit B-17 in the Application for Approval of a Multi-Year Rate Plan for 2020 through 2024 (Project No. 1598996)?

Response:

Please refer to the response to BCUC IR1 14.1.

9.5 Please describe major outages, including frequency and duration, for the period June – September, 2020 in the Boundary and West Kootenay service area?

Response:

The only major event to date in 2020 occurred in September due to a windstorm that began on September 7. The areas impacted include the Slocan Valley, Kaslo, Crawford Bay and Creston. The final accounting for the September outage statistics is not available until early October. However, preliminary results indicate there were over 120,000 customer hours associated with the transmission outages. There are no outage statistics for the distribution at this time.

10 Reference: Exhibit B-2, Appendix B, Section 2.1

"The actual/forecast winter peak load will exceed the existing winter limit in normal operation in year 2028 assuming native load growth."

10.1 What is the minimum possible scope and cost for replacing the PLA transformer with a used transformer with a winter rating of 20 MVA?

Response:

The minimum scope would be to replace the transformer with a larger unit with oil containment and to add a high side breaker in 2021. The switchgear at Playmor will need to be replaced by 2027 for the reasons explained at page 7 of Appendix B.

It is not standard FBC practice to install a used transformer. A used transformer will not be installed at Playmor because it will not provide an expected optimal operating life, which FBC considers to be 40 years or more. Furthermore, a single used transformer with a winter rating of 20 MVA would not be sufficiently sized to supply load requests for the area.

The actual/forecast winter peak load considering the potential new loads that could not recently be connected at their requested load levels would exceed the 20 MVA winter rating of a used transformer by 2033. If the potential new loads are not considered, the actual/forecast winter peak load would be approximately 18.8 MVA by 2040, leaving limited room for growth in the area if the winter rating is 20 MVA.

Attachment 1.5

C. PROPOSED RATE PLANS

161.0 Reference: X-FACTOR

Exhibit B-10, BCUC IR 13.2; Exhibit B-1, pp. B-25, B-44; FEI Application for Approval of a Multi-Year Performance Based Ratemaking Plan for 2014 through 2018 proceeding, Exhibit B-1, p. 53; FBC Application for Approval of a Multi-Year Performance Based Ratemaking Plan for 2014 through 2018 proceeding, Exhibit B-1, p. 44

O&M Savings and the X-Factor

In response to BCUC IR 13.2, FortisBC stated the following:

> The theory of the I-X mechanism defines the X-Factor value as an adjustment to the inflation factor (I-Factor) for the difference between the economy-wide inflation factors (used in the indexing formula) and the real cost [of] inflation of the utility…
>
> …The variance between [the] economy-wide inflation factor used in the formula and the utility's actual inflation depends on two factors: (i) the variance between the economy-wide inflation and the input cost inflation of the utility and (ii) the variance between the average productivity of the economy and the productivity of the utility.

In FEI's Application for Approval of a Multi-Year Performance Based Ratemaking Plan for 2014 through 2018 (FEI PBR Application) and FBC's Application for Approval of a Multi-Year Performance Based Ratemaking Plan for 2014 through 2018 (FBC PBR Application), both FEI and FBC requested approval of a 0.5 percent X-Factor (inclusive of any stretch factor).

As shown on page B-25 of the Application, the BCUC approved a 1.10 percent X-Factor for FEI and a 1.03 percent X-Factor for FBC for the Current PBR Plan terms.

On page 53 of the FEI PBR Application, FEI stated the following:

> The reasonableness of FEI's proposed X-Factor can be assessed by comparing the impact of the proposed X-Factor on forecast rate changes under a formula relative to forecasted rate changes under the cost of service model. As FEI explains in Section B7 of this Application, the rates arising from PBR formulas (the combination of proposed 0.5 per cent X-Factor and the proposed composite inflator) will lead to average delivery revenues that are 2.0 percent lower than the average rates under the cost of service model which indicates that the proposed

X-Factor is an ambitious estimate of expected productivity gains and represents a considerable challenge to the Company.

On page B-44 of the Application, FortisBC states: "FEI's and FBC's O&M expenditure performance has been a success in almost every category – less than inflation, O&M per customer has declined, and strong performance relative to other utilities."

161.1 Given that O&M savings were achieved for each of FEI and FBC in each year of the Current PBR Plan term beyond the productivity improvement factor (PIF) savings, please explain how these results may be interpreted from the perspective of each of the following: (i) FEI's and FBC's input cost inflation compared to the economy-wide inflation; and (ii) FEI's and FBC's productivity compared to the average productivity of the economy.

Response:

To clarify, the "productivity of the utility" in the preamble refers to the productivity of an average firm in the utility industry and not the specific productivity of FEI and FBC. Further, to be accurate the reference to the term "Input cost inflation" in the preamble and the question should be replaced with "input price inflation". With these notes, FortisBC provides the following response.

The information requested in this question and in BCUC IR 2.161.2 can only be addressed by conducting a TFP growth study for the utility industry as well as separate TFP studies for FEI and FBC. Conducting a TFP study is a lengthy and expensive process that takes several months. FortisBC does not have internal expertise to conduct such a study and therefore is unable to respond to these questions.

For the reasons explained in response to BCUC IR 1.17.5, FortisBC has not conducted a TFP study and is proposing a judgement-based approach for X-Factor determination. Other inputs that can inform the BCUC's decision were discussed in the response to BCUC IR 1.13.2.

Based on FortisBC's review of expert TFP testimonies in other Canadian jurisdictions, the difference between utility industry input price inflation and the economy-wide inflation is often considered to be statistically insignificant and the X-Factor is not adjusted for this item. For instance, Dr. Makholm's evidence in Union Gas' and EGD's amalgamated incentive rate-setting proceeding explains this issue as follows:

> Using the largest possible TFP data set for North American energy distribution companies, I have consistently never found a statistically significant difference in input prices for the energy distribution industry versus the economy as a whole. I confirm that same result here. That is, I have always found that there is no reason to conclude that the input price inflation faced by the energy utility

distribution sector differs from the input price inflation facing the rest of the economy.[2]

161.2 Please explain how FEI's and FBC's O&M expenditure performance during the Current PBR Plan term compares to each utility's expectations at the time of filing the FEI and FBC PBR Applications, where a 0.5 percent X-Factor was proposed. Specifically, please compare the O&M expenditure performance to FEI's and FBC's expectations regarding: (i) input cost inflation compared to the economy-wide inflation; and (ii) productivity compared to the average productivity of the economy.

Response:

Please refer to the response to BCUC IR 2.161.1.

161.3 Please confirm, or explain otherwise, that FEI and FBC have not performed a similar analysis as was described on page 53 of the FEI PBR Application – i.e. analysis of forecast rate changes under a cost of service model compared to forecast rate changes under the proposed indexed-based formula – to assess the reasonableness of the 0 percent X-Factor proposals.

Response:

Confirmed.

Comparisons similar to those provided in FEI and FBC's PBR Applications are not needed to assess the reasonableness of the X-Factor. FortisBC's proposal to not recommend an X-Factor in its O&M determination (which can also be expressed as an implied zero percent X-Factor) is reasonable and appropriate based on the evidence, including:

- the review of X-Factor related evidence and decisions in other jurisdictions, including the range of X-Factors calculated in recent TFP studies, the increased importance of judgement and rapidly declining industry productivity growth values in recent years;

[2] Dr.Makholm (2017); Expert Report and Direct Testimony pm behalf of Enbridge Gas Distribution and Union Gas Limited; page 32, Para A43.

- FEI's and FBC's history of being under performance based regulation, including efficiencies achieved during the Current PBR Plan period;
- the assessment of FEI and FBC's changing operating environment and O&M cost pressures during the proposed MRP period; and
- the results of Concentric's benchmarking study.

FortisBC's proposal to not recommend an X-Factor in its O&M determination will incent the Companies to keep controllable cost increases below the rate of inflation by finding additional efficiency opportunities while maintaining the current high levels of service quality.

Furthermore, although FortisBC undertook the comparisons described above in its 2014 PBR Applications[3], the BCUC 2014 PBR Decisions did not give the analysis any weight in its X-Factor determination[4]:

> **Comparison to COS Rates**. We do not consider an "illustrative revenue requirements forecast" to be a reasonable basis on which to make an X-Factor determination. The "illustrative forecast" has not been adequately tested and, as such, may be prone to error and bias. It cannot be viewed as a cost of service requirement for the next five years.

Considering the BCUC Panel's comments above, FortisBC does not believe it is useful to conduct a similar comparison in this Application. Further, considering that the majority of items in the MRPs will be set based on a cost of service methodology, only O&M (and Growth Capital for FEI) would be relevant to the comparison. FortisBC is not able to provide a reasonably accurate forecast of O&M (or Growth Capital) at a cost of service level of detail for a five year term.

For the upcoming year, 2020, FortisBC has no reason to believe its rates would be different under either cost of service or its proposal. For the remaining years of the MRP term, FortisBC is aware that there are cost pressures that are not reflected in the Base and that other cost pressures over the term of the MRP will arise. Therefore, FortisBC expects that the five year cost of service forecasts would be higher than the formula amounts, although FortisBC cannot accurately forecast by how much.

Nonetheless, due to the number of requests for similar information, the Companies have endeavoured to provide indicative revenue requirements and rate changes for at least the three-year period 2020 – 2022, based on the major assumptions set out in Table 1 below. These

[3] In the case of FBC, the rates under the proposed PBR formulas were virtually the same as those under the indicative cost of service model (FBC Exhibit B-1, page 49, lines 19-22.

[4] 2014 PBR Decisions, page 89 (FEI) and page 86 (FBC).

assumptions are likely to change in FortisBC's applications for interim rates to be filed in October 2019 and will change in subsequent years' rate filings once more information is available.

FortisBC reiterates that the revenue requirements and rates set out below are not at a level of accuracy that would allow rates to be set for 2020 to 2022 at this time.

Table 1: FEI and FBC Assumptions - Indicative Rates 2020 - 2022

	FEI	FBC
Inflation Factor	2%	2%
Customer Growth	Average 1%	Average 1%
O&M Expense	Cost of Service assumed equal to Indexed O&M plus Forecast O&M	Cost of Service assumed equal to Indexed O&M plus Forecast O&M
Base O&M	As set out in the response to BCUC IR 1.24.1	As set out in the response to BCUC IR 1.34.1
Growth Capital	Assuming 17,750 Gross Customer Additions per year	See Section C3.4
Sustainment and Other Capital	See Section C3.3	See Section C3.4
Major Projects	Previously approved: Lower Mainland IP System Upgrade	Previously approved: Corra Linn Spillway Gates, UBO Old Plants Refurbishment, Grand Forks Terminal Reliability
Depreciation Rates	See Section D2.2	See Section D2.3
Power Supply Costs	n/a	Based on average gross load increase of 1.1%, current contracts and expected future prices
Income Taxes	Existing rates	Existing rates

Table 2: FEI Indicative Revenue Requirement and Delivery Rates 2020 - 2022

	2020	2021	2022
	($ millions)		
Revenue			
Sales (2019 Rates)	$ 1,205,043	$ 1,262,468	$ 1,275,721
Deficiency (Surplus)	42,777	79,883	99,892
Total	1,247,820	1,342,351	1,375,613
Cost of Energy	364,305	369,577	374,564
Margin	883,515	972,774	1,001,049
Delivery Rate Increase	5.3%	4.5%	2.4%
Expenses			
O&M Expense (Net)	249,631	253,468	256,339
Depreciation & Amortization	242,159	294,037	300,656
Property Taxes	68,736	70,548	72,371
Other Revenue	(44,145)	(42,583)	(41,365)
Utility Income Before Income Taxes	367,134	397,303	413,048
Interest Expense	153,249	153,314	156,416
Income Taxes	43,137	27,602	33,833
Return on Common Equity	$ 170,748	$ 216,386	$ 222,799

Table 3: FBC Indicative Revenue Requirement and Rates 2020 – 2022

	2020	2021	2022
	($ millions)		
Revenue			
Sales (2019 Rates)	$ 373,274	$ 374,317	$ 374,606
Deficiency (Surplus)	14,863	32,757	50,930
Total	388,137	407,074	425,536
Rate Increase	4.0%	4.6%	4.5%
Expenses			
Cost of Energy	165,236	173,064	177,972
O&M Expense (Net)	51,653	55,508	57,156
Depreciation & Amortization	60,432	63,381	70,596
Property Taxes	16,880	17,163	18,183
Other Revenue	(8,056)	(8,056)	(8,056)
Utility Income Before Income Taxes	101,993	106,013	109,684
Interest Expense	42,177	44,522	44,077
Income Taxes	8,039	8,176	9,768
Return on Common Equity	$ 51,777	$ 53,315	$ 55,839

An excel spreadsheet is provided as Attachment 2.161.3.

Attachment 161.3

REFER TO LIVE SPREADSHEET MODEL

Provided in electronic format only

(accessible by opening the Attachments Tab in Adobe)

Attachment 2.2

227. In light of the above considerations, the Commission accepts the companies' method of calculating the weights for the I factor components. The Commission has examined the companies' historical ratios of labour to non-labour expenditures in recent years, as provided in the PBR applications and presented in tables 5-1 and 5-2 above. ATCO Electric's estimates resulted in a 65 per cent weighting of the labour component, although this ratio reflects the fact that ATCO Electric was the only company to apply a 50 per cent multiplier to its contractor costs.[230] The Commission does not agree with this adjustment. The Commission observes that the historical cost ratios are approximately 60 per cent labour and 40 per cent non-labour for the other companies (not including EPCOR). Accordingly, the Commission finds that a 60:40 weighting of the labour and non-labour components is a reasonable estimate of the balance of labour and non-labour costs for all companies, including ATCO Electric.

228. Nevertheless, the Commission has decided in the previous section of this decision to use Alberta CPI for non-labour costs. The Commission observed earlier in this section that the CPI includes some embedded labour. Therefore, using this index for the non-labour component together with the AWE index for the labour component may lead to a double-counting of labour costs. In this case, the 60:40 weighting would overstate the companies' input price inflation in years when growth in the Alberta AWE exceeds the growth in the Alberta CPI. Conversely, the companies' input price inflation would be understated in years when growth in the AWE is lower than the growth in the Alberta CPI. Accordingly, to temper the possibility that inflation in the companies' input prices will be overstated or understated, the Commission considers that a 55:45 ratio of labour to non-labour expenditures should be used for calculating the I factors in the companies' PBR plans.

229. Consistent with the findings in Decision 2009-035, in order to ensure that the companies' incentives will not be influenced by the relative rates of inflation between the components in the I factor, the Commission also finds that the 55:45 ratio of labour to non-labour expenditures should be held constant throughout the PBR term.[231]

230. EPCOR's proposed 80:20 labour to non-labour weighting reflects the company's proposal that the I-X mechanism be applied only to its non-capital related costs. As discussed in Section 2.3 of this decision, the Commission does not accept EPCOR's proposal to exclude all capital-related costs from the I-X mechanism. As such, the Commission directs EPCOR to use the 55:45 weighting in the calculation of its I factor.

5.3 Implementing the I factor

231. As the ATCO companies' expert Dr. Carpenter pointed out in his evidence, one of the difficulties in using the current year's inflation in the PBR formula is that the actual inflation indexes become available for each calendar year only in the first half of the following year, and there may not be any independent forecasts for the selected input price measures. To address this problem, Dr. Carpenter indicated that several methods could be used in practice. One method would be to accept a lag, either with or without a subsequent true up for the difference between the inflation actually experienced in a given year and the lagged inflation factor used to

[230] Exhibit 98.02, ATCO Electric application, Schedule 3-1.
[231] Decision 2009-035, paragraphs 147-148.