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December 18, 2019

Commercial Energy Consumers Association of British Columbia
c/o Owen Bird Law Corporation
P.O. Box 49130
Three Bentall Centre
2900 – 595 Burrard Street
Vancouver, BC
V7X 1J5

Attention: Mr. Christopher P. Weafer

Dear Mr. Weafer:

Re: FortisBC Energy Inc. and FortisBC Inc. (collectively FortisBC)

Project No. 1598996

**Application for Approval of a Multi-Year Rate Plan for 2020 through 2024
(Application)**

**Response to the Commercial Energy Consumers Association of British
Columbia (CEC) Information Request (IR) No. 4 on Rebuttal Evidence**

On March 11, 2019, FortisBC filed the Application referenced above. In accordance with the British Columbia Utilities Commission Order G-272-19 setting out the Regulatory Timetable for the review of the Application, FortisBC respectfully submits the attached response to CEC IR No. 4 on Rebuttal Evidence.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.

Original signed:

Doug Slater

Attachments

cc (email only): Commission Secretary
Registered Parties



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1 1. **Reference: Exhibit B-23, page 1**

Q1: What is the purpose of this Rebuttal Evidence?

A1: The purpose of this Rebuttal Evidence is to respond to the Evidence of Mr. Russ Bell submitted on behalf of the BC Old Age Pensioners' Organization et al ("BCOAPO")¹.

The capitalized terms in this Rebuttal Evidence are as defined in the Application. For instance, "FEI" refers to FortisBC Energy Inc. (gas), "FBC" refers to FortisBC Inc. (electric) and the terms "FortisBC", "Utilities" and "Companies" refer to both FEI and FBC together. The "Current PBR Plans" refers to the 2014-2019 PBR Plans currently approved for FEI and FBC, while the "Proposed MRPs" refers to the proposed multi-year ratemaking plan in the Application.

2

3 1.1 Please confirm that the rebuttal evidence was provided by FortisBC, and is not
4 provided by an independent consultant/expert.

5

6 **Response:**

7 Confirmed.

8

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1 **2. Reference: Exhibit B-23, page 3**

One of the advantages of the building block approach is that the O&M and capital expenditures are determined in separate formulas. This allows for a more granular analysis of a company's costs than what is possible under price cap or revenue per customer cap models. The more detailed analysis of a company's cost performance can then be relied upon for considering targeted improvements to the design of future rate plans.

Section B2.3 of FortisBC's Application provides a quantitative evaluation of the Current PBR Plans. This includes analysis of O&M savings, capital expenditure variances (divided into Growth capital and Sustainment and Other capital in the case of FEI), both quantitative and qualitative evaluation of regulatory efficiency, and trends in rates over the 2014-2019 PBR term. Further, FortisBC's evaluation considers qualitative factors such as service quality measures and the plans' performance with respect to promoting innovation.

2

3 2.1 Please confirm or otherwise explain that 'granular' analysis referenced by
4 FortisBC is largely limited to major blocks of spending variances, and generally
5 does not provide for the opportunity to assess individual projects for cost-
6 effectiveness and long-term ratepayer benefit vs. cost analysis.

7

8 a) If not confirmed, please provide examples of such analysis and cite the
9 location where this can be found in the evidence.

10

11 **Response:**

12 FEI's reference to a "more granular analysis" afforded by using a building block approach refers
13 to the review of O&M savings and capital expenditure variances (divided into Growth capital and
14 Sustainment and Other capital in the case of FEI), which would be less granular under price or
15 revenue cap models. Further, FortisBC has provided additional analysis with regard to the
16 evaluation of regulatory efficiency, trends in rates, and service quality indicators, as well as
17 Concentric's benchmarking analysis. In accordance with BCUC Order G-237-18 regarding the
18 Annual Review for FEI's 2019 rates¹, Appendices B6 (Report on major initiatives during the PBR
19 term), B7 (Report on headcounts and FTEs) and B8 (Capital directives) of the Application
20 provide a more granular level of data for the BCUC and interveners to review. FortisBC
21 believes that this level of analysis is appropriate and is consistent with the objectives of a
22 MRP/PBR plan and the BCUC's directives.

23 As explained in FortisBC's response to CEC IR 1.9.1, a detailed project-by-project review of
24 costs and benefits is not compatible with the objective of a MRP/PBR plan to reduce regulatory
25 burden and to mimic the type of incentives that are available in competitive markets. Under a

¹ BCUC Order G-237-18, Appendix A, Page 14



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1 PBR framework, the regulator provides the utility with a set of incentives to seek efficiencies and
2 create benefits for their customers and leaves the utility's management to find innovative ways
3 to achieve those efficiencies and benefits. Imposing an additional regulatory review of the cost
4 effectiveness of the utility's projects and programs is not consistent with the intent of a
5 PBR/MRP.

6 Please refer to FortisBC's response to CEC IR 1.9.1 which further explains that interveners will
7 have a forum in the proposed Annual Review process to continue to assess the ongoing
8 success of the Proposed MRPs.

9

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1 **3. Reference: Exhibit B-23, page 9**

2 As explained in response to BCUC IR 2.165.1.1, the use of a coefficient to the growth
3 factor is not warranted. The expected industry productivity-improvement factor already
4 reflects the impact of the economies of scale on cost trends for an average firm in the
5 industry. As such, applying any coefficient other than one to the growth factor will double
6 count the impact of these factors on the Companies' costs and is, in effect, an extra X-
7 Factor. Further, as explained in response to BCUC IR 1.17.6, with the exception of the
8 Regie in Quebec, other regulators do not apply a multiplier to utilities' growth factor.

9 3.1 Please explain whether or not the expected industry productivity-improvement
10 factor was also already reflected in the 2014-2019 PBR, resulting in the inclusion
11 of an extra X-factor.

12 **Response:**

13 FortisBC's Current PBR plans include an X-Factor, in the form of the expected industry Total
14 Factor Productivity (TFP), embedded in their current I-X formulas; however, that is not the
15 source of the extra X-Factor. Rather, it is the 0.5 multiplier to the growth factor that acts as an
16 additional X-Factor.

17 As discussed in the preamble, the expected industry productivity-improvement factor already
18 reflects the impact of the economies of scale on cost trends for an average firm in the industry.
19 Therefore, applying a coefficient to the growth factor in the formulas to adjust the growth factor
20 for economies of scale would not be warranted and doing so, in the form of a 0.5 multiplier to
21 the growth factor, would be analogous to adding an extra X-Factor.

22 These issues were explained in detail in the response to BCUC IR 2.165.1.1. The relevant part
23 of that response is reproduced below:

24 ... the impact of economies of scale on the Utilities' cost during the MRP term is
25 already embedded in the expected industry productivity values and applying a
26 multiplier to the growth factor would result in double counting.

27 Reviewing the regulatory decisions in other jurisdictions indicates that the topic of
28 adjusting the growth factor for economies of scale is only discussed in two
29 jurisdictions: BC and Quebec. While all of the PBR-type formulas have an implicit
30 or explicit growth factor embedded in them, no other regulators in jurisdictions
31 such as Alberta or Ontario adjusted the growth factor for this issue. FortisBC
32 believes that the X-factor determination approach explains why this is the case.
33 Productivity growth may come from various sources, ranging from technological
34 improvements to economies of scale. Therefore, the productivity values
35 calculated in productivity studies already reflect the impact of economies of scale

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1 for an average firm in the industry. For instance, Dr. Lowry's TFP evidence often
2 refers to the economies of scale as a source of productivity growth for the
3 utilities:

4 Economies of scale are a second source of productivity growth.
5 These economies are available in the longer run if cost tends to
6 grow more slowly than output. A company's potential to achieve
7 incremental scale economies depends on the pace of its output
8 growth. Incremental scale economies (and thus productivity
9 growth) will typically be reduced when output growth slows.

10 In this context, applying a growth factor coefficient acts as an additional
11 productivity factor, double counting the impact of economies of scale on the
12 productivity growth values. FortisBC has not conducted a productivity study;
13 however, it is proposing that the BCUC use the productivity results in other
14 jurisdictions along with other inputs discussed in BCUC IR 1.13.2, to inform its
15 judgement-based determination of the X Factor value. As such, if the BCUC
16 decides to adopt a growth factor coefficient, it should adjust the X-Factor value
17 downward to avoid double-counting.

18
19

20

21 3.2 Can inclusion of an X-factor typically be considered as an extra X-factor in most
22 PBR plans that have X-factor in the formula? Please explain.

23

24 a) If no, please explain why including an X factor in FortisBC's plan would
25 differ from those where there is an X-factor is included but would not be
26 considered as an 'extra X-factor'.

27

28 **Response:**

29 Please refer to the response to CEC IR 4.3.1.

30

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1 **4. Reference: Exhibit B-23, page 12**

Customer Expectations - This funding is not only for connecting new customers but is also for customer retention. This helps to mitigate rate pressure, contributes to keeping natural gas affordable and maximizes the use of FEI's energy delivery system for the benefit of customers.

Engagement - This funding is for raising awareness of consumers in a lower carbon future, the Climate Action Partners program and other supporting resources. This funding is key to developing new demand and essential for demonstrating that FEI is meeting customer expectations in bringing forward energy solutions that are innovative, cost effective and that have lower emissions. The funding supports FEI's ability to attract and retain customers, which is important to help maintain/increase load and mitigate rate pressure, and is a clear benefit to customers.

Indigenous Relations - This funding is required to support renewing and strengthening Indigenous relationships, particularly with respect to access to land. Indigenous relationships are critical to successfully advancing the Companies' infrastructure projects.

System Operations, Integrity and Security – The funding is required to meet customer expectations by improving processes concerning the efficient and effective completion of work and represents the evolving needs of FEI. The incremental funding does not represent a claw back of efficiencies achieved which are incorporated in the 2018 actual O&M and instead are to address issues and challenges expected over the term of the Proposed MRP. While cyber security may be the smallest cost of the total incremental funding, the funding requested for cyber security is a continuation of the increases in expenditures for this area. In recent years, FEI has increased expenditures for cyber security as it responds to evolving cyber risks. Table C2-13 of the Application provides FEI's historical O&M spending going back to 2018.

2

3 4.1 Please confirm that meeting customer expectations and managing customer
4 retention is, and has been, an ongoing requirement for FEI.

5

6 a) If not, please explain why FEI did not conduct these activities in the
7 previous PBR.

8

9 **Response:**

10 Performing the identified utility activities (meeting customer expectations and managing
11 customer retention; attracting new customers, developing new demand, and demonstrating that
12 FEI is bringing forward energy solutions; strengthening indigenous relationships; and improving

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1 processes concerning the efficient and effective completion of work) is part of the ongoing
2 stewardship of the utility in the interests of its customers.

3 FEI performed these utility activities during the term of the 2014-2019 PBR Plan and will
4 continue to do so through the term of the 2020-2024 MRP; however, as identified in Section
5 C2.4.2.3 of the Application, FEI's requirements for increased O&M funding related to these
6 activities is driven by new or increasing requirements in each of these areas. The need for
7 incremental O&M funding related to new or increasing requirements was canvassed during the
8 first two rounds of information requests. For example:

- 9 • In the response to BCUC IR 1.1.1, FEI described each of the 5 key influences in its
10 operating environment and summarized how those influences are driving incremental
11 funding requirements on the utility;
- 12 • In the response to BCUC IR 1.29.1.1, FEI explained that the proposed incremental O&M
13 funding requests are required to address new and increasing requirements driven by its
14 changing operating environment which are over and above the funding provided for by
15 the index-based O&M;
- 16 • In the responses to the BCUC IR 1.30 series, FEI explained its historical and proposed
17 incremental expenditures related to Customer Expectations including why the
18 incremental funding is necessary to meet customer expectations and manage customer
19 retention;
- 20 • In the responses to the BCUC IR 1.31 series, FEI explained its historical and proposed
21 incremental expenditures related to Engagement including why the incremental funding
22 is necessary to attract new customers, develop new demand, and demonstrate that FEI
23 is bringing forward energy solutions;
- 24 • In the responses to the BCOAPO 1.37 series and CEC 1.7.4, FEI explained its historical
25 and proposed incremental expenditures related to Indigenous Relations including why
26 the incremental funding is necessary to address new and increasing requirements; and
- 27 • In the responses to BCUC IR 1.32 and 1.33 series, FEI explained its historical and
28 proposed incremental expenditures related to System Operations, Integrity and Security
29 including why the incremental funding is necessary to address new or changing
30 requirements such as UNDRIP and new Environmental Assessment processes.

31
32 In summary, FEI has demonstrated in its Application and in the information requests referenced
33 above that its incremental O&M funding request is based on meeting new and increasing
34 requirements as a result of changes in its operating environment.

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1
2 4.2 Please confirm that attracting new customers, developing new demand, and
3 demonstrating that FEI is meeting customer expectation in bringing forward
4 energy solutions is, and has been, an ongoing requirement for FEI.

5
6 a) If not, please explain why FEI did not conduct these activities in the
7 previous PBR.
8

9 **Response:**

10 Please refer to the response to CEC IR 4.4.1.

11
12

13
14 4.3 Please confirm that renewing and strengthening indigenous relationships is, and
15 has been, an ongoing requirement for FEI.

16
17 a) If not, please explain why FEI did not conduct these activities in the
18 previous PBR.
19

20 **Response:**

21 Please refer to the response to CEC IR 4.4.1.

22
23

24
25 4.4 Please confirm that improving processes concerning the efficient and effective
26 completion of work is, and has been, an ongoing requirement for FEI.

27
28 a) If not, please explain why FEI did not conduct these activities in the
29 previous PBR.
30

31 **Response:**

32 Please refer to the response to CEC IR 4.4.1.

33

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1 **5. Reference: Exhibit B-23, page 23**

Q17: Mr. Bell states that he points out the apparent “step change in the level of capital funding for FEI and FBC” as it appears that the change to a forecast for much capital benefits the shareholder through increased revenues. What is FortisBC’s response?

A17: Changes in the levels of expenditures were discussed in the responses to Questions 14 and 15 above. On an inflation-adjusted basis, the increase in FEI’s expenditures over the Proposed MRP term is not of a magnitude that should be characterized as a “step change”. The review of FBC’s capital expenditures also shows a relatively modest increase in the level of expenditures for ongoing capital programs.

Mr. Bell’s statement appears to suggest that a desire to maximize the return on capital invested influences FortisBC’s capital spending forecasts. This suggestion completely disregards the driving factors behind the capital expenditures, which include the capability to serve customer load, safety, reliability, and legislative requirements. The

capital forecasts put forward by FEI and FBC are based on known and demonstrable requirements, and have been vetted in this proceeding.

2

3 5.1 Please provide quantification for FortisBC’s view of what constitutes a ‘step
4 change’.

5

6 **Response:**

7 FortisBC has not defined a threshold value that would constitute a “step change” in regard to its
8 historical and forecast capital expenditures, nor does it consider that it is necessary to do so, or
9 that such a definition would assist the BCUC in determining the appropriateness of its capital
10 forecasts. The record of this proceeding contains extensive explanation and justification
11 regarding the levels of capital expenditures requested for the term of the Proposed MRPs.

12 In its rebuttal evidence, FortisBC demonstrated that on an inflation-adjusted basis, FEI’s
13 Sustainment and Other capital expenditures will, on average, be only 1.06 percent higher over
14 the 2020-2024 timeframe than in the latter part of the Current PBR Plan (2017-2019)².

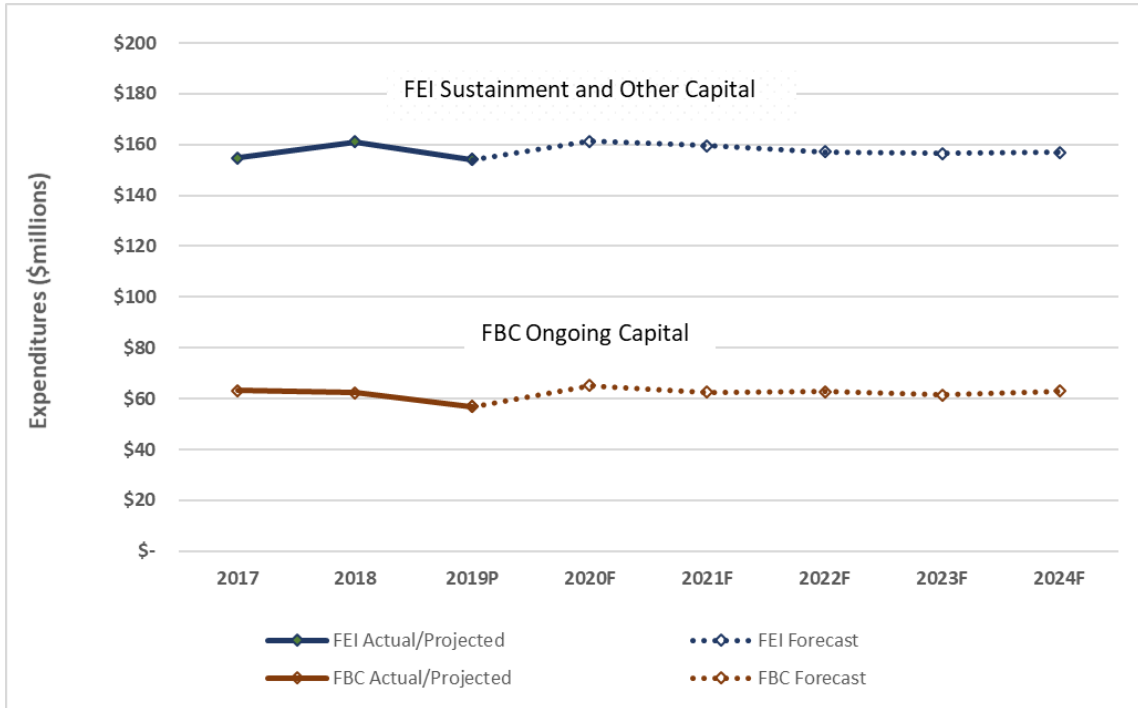
15 FBC’s average expenditures, excluding non-recurring projects, are forecast to exceed the 2017-
16 2019 average by 3.62 percent. FortisBC excludes FBC’s non-recurring capital projects from this
17 analysis because, as explained on page 18 of the rebuttal evidence, due to FBC’s relatively
18 small asset base compared to many utilities, the timing of non-recurring expenditures can easily
19 give rise to year-to-year variation or to periods of asset renewal resulting in higher spending.

² Exhibit B-23, Answer 14.

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1 The figure below illustrates the inflation-adjusted forecasts compared to recent capital
 2 expenditures for FEI and FBC.

3 **Inflation-Adjusted Capital Expenditures, 2017-2019 and 2020-2024)**



4
5

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1 **6. Reference: Exhibit B-23, page 24**

Q19: On page 12 of his evidence, Mr. Bell states that the further out the forecast is, the more uncertain it is and the more uncertainty premium one puts into the forecast. Has FEI or FBC included an uncertainty premium in its forecasts?

A19: No. FortisBC has not included any "premium" in its capital forecasts for future uncertainty.

FortisBC agrees that the longer the forecast period, the more uncertain the forecast becomes, but the result of this can go both ways since actual capital requirements may be either more or less than forecast. FEI's and FBC's Capital Planning Process is described in Section C3.2 of the Application. The forecasts provided by FEI and FBC were created using a bottom-up approach to quantify system needs based on identified projects and programs that are planned for execution. Detailed descriptions of the methods used for forecasting non-formulaic capital expenditures during the Proposed MRP term have been provided in various IR responses (for example, BCUC IRs 1.10.6, 1.46.5, 1.57.7, 2.202.4). As described in the response to BCUC IR 1.46.5, there is less certainty in the estimates for projects that are planned for execution more than two years in the future, and that uncertainty is reflected by an AACE Class 4-5 cost estimate for the project. In recognition of the uncertainties that are inherent in a five-year forecast, which FortisBC explained in detail in response to BCUC IR 1.51.5, FEI and FBC have proposed to review their 2023 and 2024 forecasts during the Annual Reviews for 2023 rates.

2

3 6.1 Please confirm or otherwise explain that the utility will benefit if the forecast is
4 high.

5

6 **Response:**

7 In its response to BCUC IR 1.64.2, FortisBC addressed the question of a potential bias towards
8 over-forecasting capital spending requirements. In that response, FortisBC confirmed that it
9 does not agree with the premise that its Application contains a potential to over-forecast, as its
10 capital expenditures forecasts for the MRPs were derived using a bottom-up approach based on
11 known requirements over the 2020-2024 period. FortisBC's proposed cost of service approach
12 is transparent and the requested capital expenditures are reasonable and justifiable.

13 The proposed MRPs, through the treatment of variances, are designed to encourage FortisBC
14 to manage capital expenditures below the amounts embedded in rates. Under the proposed
15 mechanism, the variances in depreciation, interest, and income tax expense are subject to
16 earnings sharing. Therefore, the Companies retain 50 percent of any efficiencies in capital
17 spending, but are also responsible for 50 percent of any overspending.

18 In the absence of the proposed mechanism (that is, if capital expenditures were treated as flow-
19 through), the Companies would have less incentive to pursue capital efficiencies as all benefits



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- 1 would immediately be returned to customers. Similarly, there would be no penalty to the
- 2 Companies for over-spending as the revenue requirements impacts would be fully recovered by
- 3 way of the flow-through mechanism.