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Decemeber 18, 2019

British Columbia Public Interest Advocacy Centre
Suite 803 470 Granville Street
Vancouver, B.C.
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Attention: Ms. Leigha Worth, Executive Director

Dear Ms. Worth:

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 British Columbia Public Interest Advocacy Centre representing the British Columbia Old Age Pensioners' Organization, Active Support Against Poverty, Disability Alliance BC, Council of Senior Citizens' Organizations of BC, and the Tenant Resource and Advisory Centre *et al.* (BCOAPO) Information Request (IR) No. 4 on Rebuttal Evidence

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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 BCOAPO IR No. 4 on Rebuttal Evidence.

If further information is required, please contact the undersigned.

Sincerely,

FORTISBC ENERGY INC.
FORTISBC INC.

Original signed:

Doug Slater

Attachments

cc (email only): Commission Secretary
Registered Parties

1.0 Reference: Exhibit B-23, page 2

In the noted section of the Rebuttal Evidence, FortisBC discusses its principles of PBR.

1.1 Please fully explain why one of FortisBC's principles is not the AUC principle 1 for PBR, which states:

> A PBR plan should, to the greatest extent possible, create the same efficiency incentives as those experienced in a competitive market while maintaining service quality.

<u>Response:</u>

As FortisBC stated in response to BCUC IR 1.19.1, the AUC's Principle 1 is comparable to FortisBC's proposed Principle 4:

> The MRP should maintain the utility's focus on maintaining, safe, reliable service and customer service quality while creating the efficiency incentives to continue with its productivity improvement culture.

FortisBC's response to BCUC IR 2.167.1 discussed the elements of the Proposed MRPs that are aligned with the AUC's Principle 1. Some relevant sections of the response to BCUC IR 2.167.1 are reproduced below:

> Consistent with FEI's response to BCPSO IR 1.11.3 in the FEI 2014 PBR proceeding, FortisBC continues to consider the emulation of incentive forces under competitive market conditions to improve efficiencies as more of a result of a comprehensive MRP/PBR plan than a principle. An MRP/PBR framework effectively decouples prices/revenues from the cost of service and therefore creates the intended incentives for utilities to optimize the various inputs of production to operate efficiently, similar to firms in competitive markets. However, certain regulatory safeguard mechanisms that are essential to multi-year rate plans, (such as deferrals, SQIs and off-ramps), do not conform to competitive market behavior. Therefore, FortisBC believes that emulating efficiency incentives such as those experienced in competitive markets, to the greatest extent possible, is implicit in a comprehensive PBR plan.
>
> A PBR/MRP's alignment with AUC's PBR principle 1 depends on the strength of the incentives properties of the plan and the magnitude of safeguard mechanisms applied. As a plan's incentive properties increase and the magnitude of its safeguard mechanisms diminishes, its alignment with AUC PBR principle 1 increases. FortisBC's response to BCUC IR 1.17.8 provides an

assessment of the items that affect the risk and reward balance and the associated incentives of MRP/PBR plans. These include items such as the plan's term, safeguards and ECM mechanism as well the amount of costs subject to incentives. In this context, the proposed MRPs have fewer safeguard mechanisms (FortisBC is proposing to discontinue the capital dead-band mechanism). However, this is partly offset by the Companies' proposal to update the capital expenditures forecast in the third year of the MRP period. Further, under the proposed MRPs and compared to the current PBR plans, more cost items are subject to incentives (depreciation expense will be subject to the earnings sharing mechanism), although less capital costs will be subject to indexing formulas. Overall, FortisBC considers that the two plans' incentive properties are comparable, although the proposed MRPs are slightly more aligned with AUC's Principle 1.

In addition, the Targeted Incentives proposed as part of the Application are aligned with the AUC's Principle 1. In competitive markets, superior performance is rewarded with superior returns. Under the proposed Targeted Incentive mechanism, if the Utilities can achieve superior performance (measured by achieving the demanding targets proposed by the Utilities), they would be rewarded with superior returns in the form of the proposed ROE Adders.

1.2 In the response, please fully discuss why incenting a utility to look for efficiencies similar to that of a competitive business is not one of the FortisBC principles.

Response:

Please refer to the response to BCOAPO IR 4.1.1.

2.0 Reference: Exhibit B-23, page 4

In its answer to Q5, FortisBC asserts that there are more quantitative measures to assess the success of PBR plan, then the utility group discusses a number of advantages. It also asserts that O&M savings and capital variances are quantitative measures.

2.1 Please confirm that O&M and capital variances ultimately are reflected in achieved returns.

Response:

Under the Current PBR Plans, O&M and capital variances may be either partially reflected in achieved returns where variances are subject to earnings sharing, or not reflected in achieved returns where variances are captured in the Flow-through deferral account:

The following are partially reflected in achieved returns:

- variances in formula-based O&M; and
- variances in equity return from formula-based capital expenditures, within the capital expenditures dead bands.

The following are not reflected in achieved returns:

- variances in depreciation expense from Regular Capital;
- variances in interest expense on Regular Capital; and
- variances in income taxes related to Regular Capital.

FortisBC's evidence is that the analyses of O&M savings and capital expenditure variances contributes individually towards the evaluation of a PBR plan, and is particularly important in a building-block PBR plan such as those of FortisBC. As stated in the preamble, FortisBC's answer to Q5 in its rebuttal evidence also identifies other quantitative measures of success of its Current PBR Plans, including regulatory efficiency, rate trends, service quality measures, and comparisons of financial and service quality performance to peers.

3.0 Reference: Exhibit B-23, page 8

FortisBC states that "The strong correlation between O&M expenditures and average number of customers indicates that the average number of customers is an appropriate cost driver for O&M costs."

3.1 Please confirm that a strong correlation alone only indicates that the linear regression explains the relationship between that variables, but that a strong correlation alone does not explain the nature of the relationship between the variables. If FortisBC disagrees with this assertion, please explain in detail the basis upon which it disagrees.

Response:

Confirmed. Please refer to the responses to BCUC IR 1.8.2 and CEC IR 1.14.4 for discussion of the use and explanatory value of the correlation analysis.

3.2 Please confirm that using O&M per customer as an input does not capture any expected economies of scale that should occur as new customers are added. If FortisBC disagrees with this assertion, please explain in detail the basis upon which it disagrees.

Response:

Confirmed. The O&M per customer captures any economies of scale that were achieved prior to the start of the Proposed MRP. The expected economies of scale for an average firm in the industry that may occur as new customers are added are reflected in the productivity improvement factor, as discussed in the response to BCUC IR 2.165.1.1. The relevant section of the response to BCUC IR 2.165.1.1 is reproduced below:

> Neither FEI nor FBC deny the impact of economies of scale on their costs (distribution utilities are widely known to have economies of scale). However, any impact from economies of scale is already factored in the formulas; therefore, additional adjustment in the form of a coefficient to the growth factor is not needed and would be equivalent to an additional productivity factor:
>
> > First, as explained in response to BCUC IR 1.17.7, any economies of scale prior to the start of the MRP are already reflected in the proposed Base O&M per customer amount. In this context, the BCUC's statement

regarding the difference in O&M spending for a utility with 1,000,000 and 100,000 customer is already reflected in the base unit costs.

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

Reviewing the regulatory decisions in other jurisdictions indicates that the topic of adjusting the growth factor for economies of scale is only discussed in two jurisdictions: BC and Quebec. While all of the PBR-type formulas have an implicit or explicit growth factor embedded in them, no other regulators in jurisdictions such as Alberta or Ontario adjusted the growth factor for this issue. FortisBC believes that the X-factor determination approach explains why this is the case. Productivity growth may come from various sources, ranging from technological improvements to economies of scale. Therefore, the productivity values calculated in productivity studies already reflect the impact of economies of scale for an average firm in the industry. For instance, Dr. Lowry's TFP evidence often refers to the economies of scale as a source of productivity growth for the utilities[1]:

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

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

The referenced evidence of Dr. Lowry is available online:

[1] Lowry et al (2017); "State Performance-Based Regulation Using Multiyear Rate Plans for U.S. Electric Utilities", page B-10.

https://eta.lbl.gov/sites/default/files/publications/multiyear_rate_plan_gmlc_1.4.29_final_report071217.pdf

4.0 Reference: Exhibit B-23, Page 10

4.1 Please confirm that the quote from AUC Decision 2013-435, paragraph 499 relates only to Natural Gas distribution utilities.

<u>Response:</u>

Not confirmed. The quote from AUC Decision 2013-435 that is provided on page 10 of FortisBC's rebuttal evidence applies to both electric and natural gas distribution utilities. The paragraph is reproduced below:[2]

> 499. To determine the amount of revenue the I-X mechanism will provide in a PBR year for a project or program proposed for capital tracker treatment, the calculated going-in revenue requirement associated with the capital expenditure category similar to that project or program, shall be escalated by the I-X index and adjusted by the forecast percentage change in billing determinants. In the formulas below, the Commission will designate the forecast percentage change in billing determinants in any given PBR year as "Q." As the Commission explained in Section 4.3.2 of this decision, multiplying the going-in revenue requirement for similar capital expenditures by the I-X index and adjusting for the percentage change in billing determinants results in a proportional allocation of the impact on revenue of any changes in billing determinants. As set out in Section 4.3.2, <u>for the companies under the price cap PBR plan, this percentage change will be calculated across all billing determinants, including energy, demand, and the number of customers</u>.[582] For the companies under the revenue-per-customer cap PBR plan, the percentage change will be calculated as a forecast weighted average change in the number of customers among rate classes.[583] By way of example, the amount of revenue that would be provided under the I-X mechanism in 2013 for project i proposed for capital tracker treatment shall be determined as follows:
>
> $$(\textit{Revenue from the I-X mechanism})_{2013i} =$$
>
> $$(\textit{Going-in revenue requirement})i \times (1+I\text{-}X)_{2013} \times (1+Q)_{2013}.$$
>
> [Emphasis added]

As can be seen from the underlined section, the above quote refers to the "price cap PBR plan" which is the plan approved for Alberta's electric distributors. Further, the above formula applies to both price cap and revenue per customer cap plans. The only difference is that "Q" for price

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[2] AUC Decision 2013-435 is available online at http://www.auc.ab.ca/regulatory_documents/ProceedingDocuments/2013/2013-435.pdf.

cap plans is calculated as the percentage of change across all billing determinants[3], including energy, demand, and the number of customers. Under the revenue per customer cap formula, Q is calculated as the forecast weighted average change in the number of customers among rate classes. In both cases, Q includes the number of customers, reflecting a 100 percent growth factor similar to what is proposed by FortisBC.

4.2 Please confirm that Mr. Bell did acknowledge that there was a growth factor in the natural gas PBR[4] in Alberta and in the K-Bar[5].

Response:

Confirmed. However, Mr. Bell did not acknowledge the fact that price cap formulas embed an implicit growth factor within their billing determinants for new customers.

[3] Billing determinants are the detailed customer usage data by rate schedule needed to bill customers at present rates.
[4] Exhibit C7-9, FBC IRs to Mr. Bell, IR 3.1.
[5] Exhibit C7-6, BCUC IRs to Mr. Bell, IR 3.3.

5.0 Reference: Exhibit B-23, Page 13, line 30

FortisBC provides a table of O&M per customer.

5.1 Please confirm that, for the years 2013-2018, there appears to be a downward trend in O&M per customer.

Response:

Confirmed.

The table of O&M per customer, presented on an inflation-adjusted basis, shows a downward trend in O&M per customer and highlights the success of FortisBC's (FEI and FBC) efforts during the Current PBR Plan to realize efficiencies and productivity savings for the benefit of customers and the Companies. These savings have also been reflected in the actual O&M costs per customer to date and are incorporated in FEI's and FBC's proposed Base O&M for the Proposed MRPs. The 2018 O&M expenditures per customer is an appropriate starting point for the determination of the proposed 2019 Base O&M as it incorporates the productivity savings achieved over the Current PBR Plans and reflects the then-current costs necessary to meet safety standards and other service requirements.

While there has been a downward trend in O&M per customer during the Current PBR Plans, the trend cannot reasonably be expected to be sustained. This is demonstrated by the declining level of O&M savings in recent years as the Companies are faced with the increasingly difficult challenge of finding new productivity opportunities to meet the annual savings embedded in the formula and to sustain the level of incremental O&M savings achieved (i.e. Savings above the Formula)[6]. As discussed in the Application[7] and IR responses[8], increasing cost pressures will make it challenging for the Companies to sustain the past downward trend in O&M per customer. Further, the incremental O&M funding required to address future issues and challenges in the operating environment, including changes in regulations, compliance requirements, customer expectations, a growing customer base, and climate policy, of approximately $10.4 million for FEI[9] and $0.8 million for FBC[10] will put further upward pressure on the O&M per customer.

[6] Table B2-2 FEI Formula O&M Savings from 2014 to 2019 and Table B2-3 FEI Formula O&M Savings from 2014 to 2019.
[7] Pages C-15 to C-17 of MRP Application.
[8] Responses to BCUC IR 1.13.2, BCUC IR 1.22.1.
[9] Table C2-7 FEI New Funding for the Term of Proposed MRP.
[10] Table C2-15 FBC New Funding for the Term of Proposed MRP.

6.0 Reference: Exhibit B-23, Page 24

In Q19 FortisBC states:

> 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?

FortisBC then states in the response:

> 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.

6.1 Please confirm that a rational investor would place some degree of conservativism in estimates that are further into the future. If not confirmed, please fully explain.

<u>Response:</u>

FortisBC interprets this question as asking whether it is reasonable to include conservatism in the estimate of its capital requirements given the length of the forecast period. As FortisBC noted in the preamble, it has not included conservatism in its forecast to account for increased uncertainty in the latter years of the forecast period, nor has it deviated from the forecast methodology explained in the preamble. Rather, FortisBC has addressed the uncertainty associated with the length of the forecast period by proposing, if necessary, to revise its capital expenditures forecasts in 2022 for the final two years of the MRP term. In FortisBC's view, this is both a rational and prudent approach to determining the level of capital expenditures both on an ongoing basis, and within the context of the proposed MRPs.