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FortisBC Energy Inc. and FortisBC Inc.

Application for Approval of a Multi-Year Rate Plan
for the Years 2020 through 2024

Decision
and Orders G-165-20 and G-166-20

June 22, 2020

Before:

D. A. Cote, Panel Chair
A. K. Fung, QC, Commissioner
K. A. Keilty, Commissioner
E. B. Lockhart, Commissioner

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Executive summary

Rates for FortisBC Energy Inc. (FEI) and FortisBC Inc. (FBC) (together, FortisBC or the Utilities) are currently set using a performance or incentive-based (PBR) framework beginning in 2014 and ending in 2019 (Current PBR Plans).

FortisBC has applied to the British Columbia Utilities Commission (BCUC) for approval of multi-year ratemaking plans (Proposed MRPs) that provide the framework for FEI and FBC's rates from 2020 through 2024 (Application). FortisBC submits that the Proposed MRPs build on the success of the Current PBR Plans and respond to the challenges experienced, stakeholder feedback and significant changes occurring in its operating environment over the term of the plans. FortisBC recommends that the BCUC approve the Proposed MRPs stating that they are balanced rate-setting frameworks that align the interests of the Utilities and ratepayers; provide the Utilities the flexibility to address challenges, opportunities and emerging pressures; and allow the Utilities to continue providing safe and reliable service.

The Panel identified two issues that needed to be addressed at the outset as they provide context to the review of the Proposed MRPs: i) providing an assessment of the Current PBR Plans, and ii) determining whether it is appropriate moving forward to continue with a PBR approach. Based on the record in this proceeding, the Panel is persuaded that the Current PBR Plans were successful, benefiting both ratepayers and the Utilities. The Return on Equity (ROE) achieved by the Utilities were not excessive compared to their allowed ROEs and increases in customer rates during the Current PBR Plans were within an acceptable range. Further, there is insufficient evidence to suggest that moving to a traditional cost of service or other alternative ratemaking approach would be preferable to a PBR/MRP framework as proposed by FortisBC. Accordingly, the Panel finds a review of the Proposed MRPs is warranted.

FortisBC's Proposed MRPs include elements from the Current PBR Plans which it proposes to change as well as elements which it proposes to carry forward. Major changes include adjustments to the productivity and growth factors in the Current PBR Plans, a shift from a formula approach to a forecast approach for the majority of capital, the addition of an efficiency carry over mechanism, updates to service quality indicators based on improved historical performance and stakeholder feedback, the addition of new targeted incentives, a new Clean Growth Innovation Fund, and updated detailed supporting studies to ensure that rates over the Proposed MRP terms are more representative of FortisBC's revenue requirements.

The BCUC established a public hearing process to review the Application in March 2019; it included a workshop hosted by FortisBC, two rounds of BCUC and intervener information requests (IRs) on the Application, the filing of intervener evidence, IRs on intervener evidence, and two procedural conferences.

The Panel approves the following elements of the Proposed MRPs, and is satisfied that when considered in their totality, the plans strike the right balance between the interests of ratepayers and the Utilities and appropriately address risks and rewards:

MRP Plan Components

- **MRP Term:** A five-year MRP term starting in 2020 and ending in 2024.
- **Index-based Approach:** Use of a formula or index-based approach to FEI and FBC's controllable O&M and FEI Growth capital, incorporating the MRP formula components outlined below.
- **Forecast Approach to Capital:** Use of a forecast approach for FEI Sustainment capital and FBC Regular capital. Specifically, the Panel approves the level of forecast capital to be incorporated in rates for the three-year period 2020-2022 in these categories as set out in the Application. FortisBC is directed to file an updated forecast of the 2023 to 2024 capital expenditures for BCUC approval in the Annual Review for 2023 rates.
- **Earnings Sharing Mechanism:** A 50 percent sharing between customers and the Utilities of FEI and FBC's achieved ROE above or below the allowed ROE.
- **Efficiency Carry Over Mechanism:** The Utilities may apply for approval of an efficiency carry over mechanism at any time in the last three years of the MRP term, either in advance or following the action/initiative giving rise to savings being undertaken. If approved, the net savings identified will be shared equally between ratepayers and the Utilities for a maximum period of three years following the end of the MRP term. The efficiency carry over mechanism proposed by FortisBC is denied. The Panel finds that the proposal does not adequately balance the interests of ratepayers and the Utilities.
- **Service Quality Indicators:** Nine service quality indicators for FEI and eight service quality indicators for FBC with certain updated benchmarks, thresholds and annual basis of calculations as outlined in the Decision. In addition, there are four informational indicators in the Decision for FEI and FBC, respectively, which the Utilities must report on with the service quality indicators in the Annual Review.
- **Financial Off-ramp:** A plan off-ramp will be triggered if earnings in any one year vary from the allowed ROE by more than +/-150 basis points (post sharing).
- **Annual Review Process and MRP Assessment:** An Annual Review process with certain topics which must be addressed is outlined in the Decision. In addition, the Panel finds that having an assessment of the MRPs would be useful in determining the approach to ratemaking following the end of the MRP term.
- **Flow-through treatment:** Specific revenue requirement items approved for flow-through and deferral account treatment of certain items are as outlined in the Decision.
- **Supporting Studies:** Use of updated supporting studies for setting rates, including updated depreciation rates, working capital, shared and corporate allocations, and capitalized overheads rates.

MRP Formula Components

- **Growth factor:** A growth factor multiplier for O&M is set at 75 percent with an increase in the multiplier for FEI Growth capital from 50 percent to 100 percent. Additionally, the Panel approves the use of forecast average number of customers and forecast Gross Customer Additions for controllable O&M and FEI Growth capital, respectively, with true-up mechanism to reflect actual amounts.
- **Inflation-Factor:** An inflation factor based on Statistics Canada BC-CPI and the BC-AWE indexes, where the labour to non-labour ratio is to be set annually based on actual for the most recently completed year.

- **X-Factor:** An X-Factor of 0.5 percent, inclusive of a stretch factor.
- **Base O&M:** A Base O&M per customer amount for the index-based approach to controllable O&M using 2018 Actual O&M as the starting point, and subject to the Panel's determinations on FortisBC's proposed adjustments as outlined in the Decision.
- **Base FEI Growth Capital:** A Base Unit Cost for the index-based approach to FEI's Growth capital using an average of the 2016-2018 Actual unit costs, and subject to the Panel's determinations on FortisBC's proposed adjustments as outlined in the Decision.

FEI's proposed Clean Growth Innovation Fund and basic charge fixed rate rider of \$0.40/month to fund innovation are approved. FortisBC has demonstrated that FEI needs to accelerate its innovation activities in order to meet the ambitious targets pertaining to renewable gas outlined in the CleanBC Plan. Therefore, the Panel finds the fund to be just, reasonable, and not unduly discriminatory. However, the Panel denies FBC's application for a Clean Growth Innovation Fund. The Panel finds FBC has not demonstrated that there is a need for an Innovation Fund for FBC to pursue innovation projects that would provide FBC's ratepayers with benefits not otherwise available to them.

The Panel denies FEI and FBC's requests for targeted incentives. While the Panel agrees that the proposal for an FEI Growth in Renewable Natural Gas targeted incentive appears on its face to be a very ambitious target for FEI to achieve, we are concerned about changes in the renewable gas market and legislative changes to the Greenhouse Gas Reduction (Clean Energy) Regulation over the MRP term which may make it easier for FEI to achieve its renewable targets. In such circumstances, the targets may prove to be too lenient and the reward too rich, such that it would be unreasonable to reward the shareholder with additional basis points for meeting the Renewable Natural Gas targeted incentive. The Panel denies the other requests for targeted incentives on the basis that they are unnecessary to incent the Utilities to do what they ought to be doing already in these areas in the ordinary course of business. While the Panel is not opposed to targeted incentives on principle and accepts that they may have a potential role in utility ratemaking, they must be well thought out, proportional, and bring about outcomes that are above and beyond what may reasonably be expected of a prudent utility operator.

1.0 Introduction

On March 11, 2019, FortisBC Energy Inc. (FEI) and FortisBC Inc. (FBC) (together, FortisBC or the Utilities) filed an application to the British Columbia Utilities Commission (BCUC) for approval of multi-year rate plans for the years 2020 through 2024 (Application). FortisBC proposes a multi-year performance framework to establish rates for FEI and FBC for 2020 to 2024 (Proposed MRPs).

This document sets out the key issues to be decided by the Panel, provides an overview of relevant evidence, considers the positions of the parties and outlines the reasons for its decision (Decision).

1.1 Key Issues

The following key issues form the framework for the Panel's review of the Application and the Decision:

- Comparing the Proposed MRPs to the BCUC's experience in establishing rates using a multi-year performance or performance-based framework and the key elements in FortisBC's current performance-based plans which ended in 2019 (Current PBR Plans);
- Assessing whether the Current PBR Plans were successful and the appropriateness of continuing with a multi-year performance-based framework for 2020 to 2024;
- Considering if the Proposed MRPs are appropriately designed and whether the Panel should approve the components proposed to be set using a formula or index-based or on a forecast basis as well as the other components of the MRP such as the earning sharing mechanism, efficiency carryover mechanism, service quality indicators, and financial off-ramp provisions;
- Determining whether the proposed Base operating and maintenance (O&M) costs, Growth Capital Base Unit Cost and forecast O&M and capital expenditures are reasonable and together with other proposals and supporting studies will make the MRPs work;
- Reviewing the FortisBC's proposed Clean Growth Innovation Fund and Targeted Incentives and determining if the BCUC has the jurisdiction to approve these, and if so, whether approval is warranted;
- Establishing an appropriate Annual Process for the Proposed MRPs.

1.2 Background

A multi-year performance-based framework is a form of regulatory rate setting that links utility rates to performance rather than to recovery of the operating and capital costs of service consistent with a traditional cost of service (COS) approach. The benefits of a performance-based approach are generally linked to increased efficiency, a better control of O&M costs, capital expenditures and regulatory cost resulting in more reasonable utility rates. A multi-year performance-based approach typically uses a rate setting mechanism designed to incent a utility to find efficiencies while ensuring that reasonable and measurable service levels are maintained.

Individual cost components of a multi-year performance-based revenue requirement are often determined using a formula or index-based approach that considers inflation and other cost drivers and adjusts to reflect a utility's expected productivity improvements. Other revenue and cost components that are not conducive to an

index-based approach are often determined through a forecast approach like a traditional COS approach or flowed through to the revenue requirement. Revenue and cost components outside the utility's control may also be handled through a deferral mechanism or be given flow-through or exogenous factor treatment.¹ A PBR may also be designed with incentive mechanisms for increased utility earning if certain targets are met.

The BCUC has a long history of establishing rates using a performance-based framework for regulated utilities in British Columbia. Since the 1990s, FortisBC has been regulated using a performance or incentive-based framework, including FEI's 1998 and 2004 PBR plans and FBC's 1996 and 2007 PBR plans. Following periods of using a traditional COS approach, including the FEI 2010-2011 and the FEI and FBC 2012-2013 Revenue Requirement Application (RRA) proceedings, the Utilities returned to a performance-based framework for the 2014-2019 period.²

Current PBR Plans

The Current PBR Plans were approved on September 15, 2014,³ and established FEI and FBC's rate setting mechanisms for the period 2014 through to 2019.⁴

Some of the key design elements of FortisBC's Current PBR Plans include:

- Controllable O&M costs were set for FEI and FBC using a formula or index-based approach. The approved formula included a growth factor and an inflation factor and was reduced by a utility specific productivity or X-factor⁵ to reflect expected productivity improvements. Certain non-controllable O&M costs were set on a forecast basis.
- Capital expenditures were set using a formula or index-based approach and thresholds were established to identify which capital projects would be excluded from FBC's and FEI's formula-driven capital spending.⁶ A capital dead band established the treatment for handling capital expenditures that exceed the dead band in any one or two-year period.
- The Earnings Sharing Mechanism (ESM) determined the sharing by the Utilities and ratepayers of gains and losses above and below the approved O&M and capital formulas amounts.
- The Efficiency Carry-over Mechanism (ECM) established a methodology to review specific requests to carry over efficiency related benefits that arose during the Current PBR Plan period.
- Service Quality Indicators (SQIs) setting acceptable performance ranges for specific SQIs for each utility were approved.⁷
- Flow-through or deferral account mechanisms were approved for revenue requirement items and certain variances between forecast and actual expenditures.

¹ See Subsections 3.2.8 for further discussion on deferral mechanisms, flow-through treatment and exogenous factor.

² Exhibit B-1, p. B-25.

³ FEI Multi-Year Performance Based Ratemaking Plan for 2014 through 2018 (Current PBR Plan) Decision and Order G-138-14 dated September 15, 2014 (FEI Current PBR Plan Decision); FBC Multi-Year Performance Based Ratemaking Plan for 2014 through 2018 Decision and Order G-139-14 dated September 15, 2014 (FBC Current PBR Plan Decision).

⁴ FEI Current PBR Plan Decision, p. 27; FBC Current PBR Plan Decision, p. 27.

⁵ See Subsection 3.2.6 for further discussion on productivity or X-factor.

⁶ BCUC Order G-120-15.

⁷ An Application by FortisBC for Approval of Service Quality Indicator Performance Ranges, Order G-14-15.

- An Annual Review process was established to build trust among the stakeholders and to ensure that the Current PBR Plans functioned as intended.

1.3 Overview of FortisBC's Proposed MRPs

FortisBC outlines the adjustments necessary to the Current PBR Plans to respond to the challenges with the capital formula, stakeholder feedback and changes in FortisBC's operating environment, including decarbonization policies. FortisBC states that it requires a multi-year performance-based plan that provides stable levels of O&M funding, the flexibility to innovate and adapt, and incentive to invest in the future.

FortisBC's proposals include the following:

- A formula or index-based approach for controllable O&M expenses and FEI's Growth capital;
- Adjustments to the productivity and growth factors;
- A forecast approach for the majority of capital expenditures, with any variances between actual and forecast capital expenditures continuing to be subject to an ESM;
- An updated ECM;
- Updates to SQIs, including a new informational indicator to measure quality of service to FBC municipal wholesale customers;
- Adjustments to the flow-through treatment of certain revenue requirement items, either through the continuation of specific deferral accounts or through the existing general Flow-through deferral account;
- A Clean Growth Innovation Fund to provide spending for Utilities' annual innovation activities;
- New targeted incentives; and
- Updates to supporting studies resulting in changes to the calculation of working capital and updated depreciation, net salvage and capitalized overhead rates, and the methodology for the calculation of corporate services costs.⁸

1.4 Legislative Framework

Sections 59 to 61 of the *Utilities Commission Act (UCA)* set out the jurisdiction for the Panel's review of the Application. These sections require the BCUC to set rates that are not unjust, unreasonable, or unduly discriminatory in respect of services provided by regulated utilities. Further, the UCA states that when establishing rates, the BCUC:

- must have due regard to set rates that encourages public utilities to increase efficiency, reduce costs and enhance performance;⁹ and
- may use any mechanism, formula or other method of setting the rate that it considers advisable and may order that the rate derived from such a mechanism, formula or other method is to remain in effect for a specified period.¹⁰

⁸ FortisBC Final Argument, pp. 2-3.

⁹ UCA, Section 60(1)(b)(iii).

¹⁰ UCA, Section 60(1)(b.1).

1.5 Regulatory Process for the Application

The Panel established a public hearing process for the review of this Application which included, among other things, a workshop, two rounds of BCUC and intervener information requests (IR) on the Application, the filing of intervener evidence, IRs on intervener evidence, and two procedural conferences.¹¹

On November 28, 2019, the Panel approved a 2.0 percent delivery rate increase for FEI¹² and a 1.0 percent general rate increase for FBC.¹³ These rate changes were effective January 1, 2020 and approved on an interim and refundable basis pending this Decision.

Six registered interveners actively participated in this proceeding:

- British Columbia Municipal Electrical Utilities (BCMEU);
- British Columbia Old Age Pensioners' Organization (BCOAPO) et. al.;
- British Columbia Sustainable Energy Association (BCSEA);
- Commercial Energy Consumers Association of British Columbia (the CEC);
- Movement of United Professionals (MoveUP); and
- Industrial Customers Group (ICG).

BCOAPO also submitted intervener evidence prepared by its expert Russ Bell & Associates Inc. (Bell).

The Panel notes that the scope of ICG's participation is limited to FBC, and while British Columbia Hydro and Power Authority (BC Hydro) was a registered intervener, it played a limited role in this proceeding and did not file any IRs or final argument. The Panel also acknowledges the eleven interested parties and the five individuals/organizations that filed letters of comments.

2.0 Contextual Issues

The Panel has identified the following two issues we believe need to be addressed at the outset as they provide context to the review of this Application;

- i) providing an assessment of the Current PBR Plans; and
- ii) determining whether it is appropriate moving forward to continue with a Performance Based Ratemaking (PBR) approach.

While related, these issues differ significantly in that one looks backward at the performance of the PBR approach that was utilized over the past six years and the other looks forward and considers the implications of potentially considering alternative ratemaking options, such as using a traditional COS approach. The Panel considers it important to first assess the Current PBR Plans and understand whether it has been successful

¹¹ The regulatory timetables for this proceeding were established and amended through various BCUC Orders: G-64-19, G-156-19, G-241-19, G-272-19.

¹² Order G-302-19.

¹³ Order G-303-19.

before moving forward with another longer-term PBR style ratemaking plan. Accordingly, we first examine some of the key results of the Current PBR Plans to determine whether they can be described as successful as submitted by FortisBC. Following this discussion, we consider whether a multi-year performance -based framework as proposed by FortisBC continues to be appropriate in this environment or whether the evidence supports moving to traditional COS framework as proposed by some of the interveners.

2.1 Assessment of the Current PBR Plans

Due to the Current PBR Plans remaining in effect to the end of 2019, an evaluation of the full term of the Current PBR Plans is not possible. However, FortisBC considers the information from the last five Annual Reviews to be useful in evaluating the Utilities' performance over the PBR period. According to FortisBC, one measure of the plans' success relates to the amount of savings achieved and the impact of these savings on rates. This measure would include items such as identified cost savings embedded in the formula's productivity value, an evaluation of variances between actual costs and what has been formula generated each year, as well as the trend in costs and rates over the plans' term. A second measure would be the evaluation of Current PBR Plans as they relate to the interaction of the individual features of the PBR. An example of this is how the Current PBR Plans' safeguard mechanisms protect the ratepayer and the utility from unintended consequences.

FortisBC states that overall, the Current PBR Plans have resulted in sizable benefits to both the ratepayer and the Utilities. Ratepayers have benefited from expected productivity amounts embedded in the formula's X-Factor. O&M expense has been consistently below formula generated levels resulting in savings to ratepayers through the ESM. In addition, safeguard mechanisms such as earnings sharing and capital dead-band mechanisms have performed as designed and mitigated risks. Ratepayers have also benefited from the level of rates over the PBR period as FEI has managed to keep average delivery rate increases below the average rate of inflation while FBC rate increases are close to inflation on an annualized basis.¹⁴ To further consider the success of the Current PBR Plans, the Panel examines the results of the plans in more detail.

2.1.1 FEI and FBC's O&M Expenditures

Table 1 outlines FEI's O&M savings for each year of the Current PBR Plan (2019 projected) taking into account the impact of what FortisBC refers to as the Productivity Incentive Factor (PIF).¹⁵ FortisBC explains that this shows O&M savings were considerable in every year of the Current PBR Plan. Savings above those embedded in the formula indicates an increase in savings over the first three years of the term (column c) with a levelling off thereafter. FortisBC states that the effect on O&M of the accumulating PIF (column e) has offset earlier savings achieved and, with cost pressures not initially considered, has resulted in a slowdown of incremental O&M savings. Using a unit cost approach this can be further analysed.

¹⁴ Exhibit B-1, pp. B-29–B-30.

¹⁵ See Subsection 3.2.6 for further discussion on productivity or X-factor.

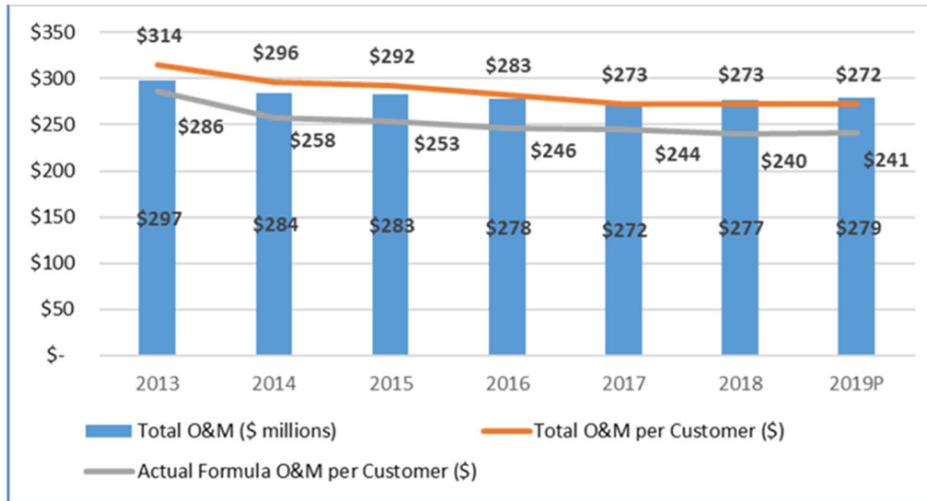
Table 1: FEI Formula Savings From 2014 to 2019 (\$ Millions)¹⁶

Year	Actual (a)	Formula With 1.1% PIF (b)	Savings above the Formula (c= b-a)	Formula without 1.1% PIF (d)	Savings related to 1.10% PIF (e= d-b)	Total Savings to customer (f= 0.5*c + e)
2014 ⁴⁵	191.0	198.5	7.5	200.7	2.2	5.9
2015	225.4	235.6	10.2	240.4	4.8	9.9
2016	225.9	238.1	12.2	245.6	7.5	13.6
2017	232.5	240.4	7.9	250.7	10.3	14.3
2018	238.7	243.6	4.9	256.8	13.2	15.7
2019P	246.9	248.9	2.0	265.3	16.4	17.4
Total						\$76.8

Note: PIF means Productivity Incentive Factor

Figure 1 shows the actual formula O&M per customer metric (adjusted for inflation) has decreased substantially (\$286 before 2013 to \$241 per customer in 2019) or approximately 16 percent.

Figure 1: FEI Actual O&M in Real Dollars from 2013 to 2019¹⁷



FortisBC reports that FBC O&M expenditures have also trended favourably and exhibited a similar profile to FEI. Using a unit cost approach, the actual formula O&M per customer has decreased by approximately 12 percent from \$475 per customer in 2013 to \$401 per customer in 2019.¹⁸

2.1.2 FEI and FBC Capital Expenditures

FortisBC states that capital spending has exceeded the formula amounts in each completed year of the Current PBR Plans with the expectation this will continue into 2019. As a result, the Utilities faced challenges with meeting the level of capital expenditures that were required to handle customer growth and were unable to maintain their capital assets within capital formula amounts.

¹⁶ Exhibit B-1, Table B2-2, p. B-31.

¹⁷ Ibid., Figure B2-1, p. B-32.

¹⁸ Ibid., pp. B-32–B-33.

Table 2: FEI Growth Capital Variance from 2014 to 2019 (\$ millions)¹⁹

Year	Actual	Formula	Variance
2014	24.231	21.478	(2.753)
2015	45.776	28.480	(17.296)
2016	47.500	33.262	(14.238)
2017	59.542	33.477	(26.066)
2018	82.884	37.485	(45.399)
2019P	63.328	40.143	(23.185)
Total	323.262	194.325	(128.937)

Under the Current PBR Plan, FEI's formula capital expenditures were divided into three categories; Growth capital, Sustainment capital and Other capital. Of these, Growth capital, which is displayed in Table 2 above has been the main contributor to overall capital variances over the Current PBR Plan term. FortisBC states that these significant variances can be attributed to two main factors:

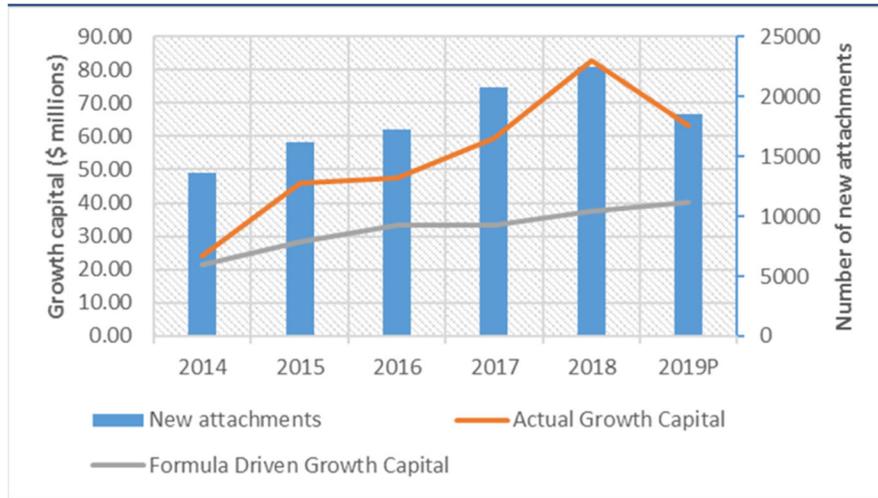
- The 2013 base year Growth capital expenditures did not anticipate developments during the plan term that caused an increase to unit costs. Included among these developments were the changes in the mix of customer type and the location of new attachments. For example, there was an increase in the growth of industrial mains during the Current PBR Plans as compared to base assumptions that have increased the costs related to mains unit additions. Additionally, overall unit costs have increased on Vancouver Island compared to base assumptions due to the increase in service line additions.
- The 50 percent multiplier on the formulas' growth factors and the use of lagged values for formula inputs.

Figure 2 below shows the trend in FEI's new attachments as compared with actual and formula-driven Growth capital. FortisBC points out that the formula Growth capital lags the trend in new attachments noting that the increase in actual Growth Capital from 2016 to 2017 reflects the trend in new attachments over this period while the formula generated capital amount does not. FortisBC, by applying a simple correlation analysis, shows that the correlation between new attachments and actual costs is close to 0.95 while the correlation between the number of new attachments and the formula generated growth capital is lower at 0.79. It states that this reinforces its position that formula inputs and the growth factor should be forward looking and based on forecast numbers and the 50 percent multiplier to the growth factor is not needed.²⁰

¹⁹ Exhibit B-1, Table B2-4, p. B-34.

²⁰ Ibid., pp. B-34–B-35.

Figure 2: FEI Trend in New Attachments Compared with Actual and Formula-driven Growth Capital²¹



With respect to FEI’s Sustainment and Other capital, the results are similar to those of Growth capital as illustrated in Table 3. In all but one year, 2015, the variances for Sustainment and Other capital are negative. Consequently, actual spending was greater than those amounts generated by the formula with actual amounts exceeding those generated by the formula projected at 13.6 percent over the Current PBR Plan term. FortisBC states that the biggest contributor to this variance is related to FortisBC Energy Vancouver Island (FEVI) and FortisBC Energy Whistler (FEW) being added to FEI’s formula capital base in 2015 and the methodology used to calculate these additions to the base Sustainment Capital.

Table 3: FEI Sustainment and Other Capital Variance from 2014 to 2019 (\$millions)²²

Year	Sustainment and Other Capital			% variance to formula
	Actual	Formula	Variance	
2014	100.168	98.343	(1.825)	1.9%
2015	107.803	110.901	3.098	2.8%
2016	114.641	112.053	(2.588)	2.3%
2017	139.416	113.104	(26.311)	23.3%
2018	150.329	114.596	(35.733)	31.2%
2019P	144.359	117.116	(27.243)	23.3%
Total	756.655	666.113	(90.542)	13.6%

* Excluding pension and OPEB

FBC categorizes its capital expenditures in the same manner as FEI. However, unlike FEI, a single formula was applied to FBC’s capital in the Current PBR Plan. As outlined in Table 4, total capital expenditures are projected to exceed formula by 19 percent over the Current PBR Plan term. For the years 2014 to 2016 actual formula-driven capital amounts were relatively close to actual expenditures. FortisBC explains that for FBC to be able to

²¹ Exhibit B-1, Figure B2-3, p. B-35.

²² Ibid., Table B2-5, p. B-36.

manage its capital spending in a manner that was close to the formula allowed amount in these years, some projects were reprioritized to future years. However, in 2017-2018, additional capital expenditures were required to catch-up in order to address safety, compliance, and reliability issues and to replace end-of-life equipment. This was expected to carryover into 2019.²³

Table 4: FBC Capital Expenditures Variances 2014 to 2019 (\$ millions)²⁴

Year	Capital Expenditures			% variance to formula
	Actual	Formula	Variance	
2014	42.665	42.193	(0.472)	1.1%
2015	44.791	42.384	(2.408)	5.7%
2016	45.838	42.874	(2.964)	6.9%
2017	59.053	43.254	(15.799)	36.5%
2018	60.187	43.818	(16.369)	37.4%
2019P	56.500	44.862	(11.638)	25.9%
Total	309.034	259.385	(49.649)	19.1%

2.1.3 FEI and FBC Delivery Rate Changes

FortisBC cites the growth trend in delivery rates as another important indicator of performance during the Current PBR Plan terms. While acknowledging that rates are impacted by numerous inputs (some outside the PBR framework), FortisBC notes that the focus on achieving efficiencies resulting in O&M reductions, the ability to focus on customer and market growth, and a longer ratemaking period have all contributed to mitigating rate increases over the Current PBR Plans.²⁵

For comparison, FortisBC has contrasted FEI’s delivery rate trend with the composite inflation factor. As outlined in Figure 3 below, FEI’s delivery rate increases have averaged 0.9 percent over the Current PBR Plan period, have mostly been below the average rate of inflation of 2 percent and there were no rate increases in 2017 and 2018. FortisBC explains that the Current PBR Plan period coincided with a high growth period for FEI providing additional revenue thereby mitigating rate increases that would otherwise have been required. FortisBC reports that the BCUC approved rate smoothing and deferral of FEI’s revenue surpluses for both 2017 and 2018 with a net revenue surplus of \$42 million being available for future rate mitigation or smoothing.²⁶

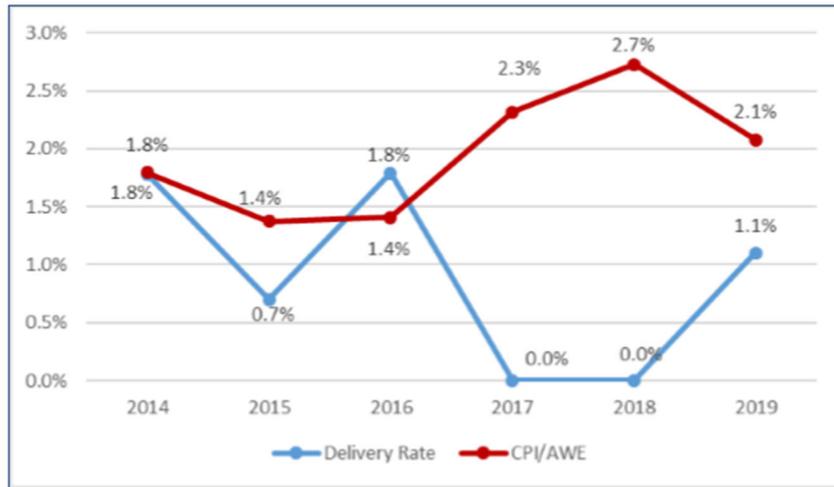
²³ Exhibit B-1, p. B-37; Exhibit B-1-1, Appendix B8-3, pp. 2-3.

²⁴ Ibid., Table B2-6, p. B-37.

²⁵ Ibid., p. B-41.

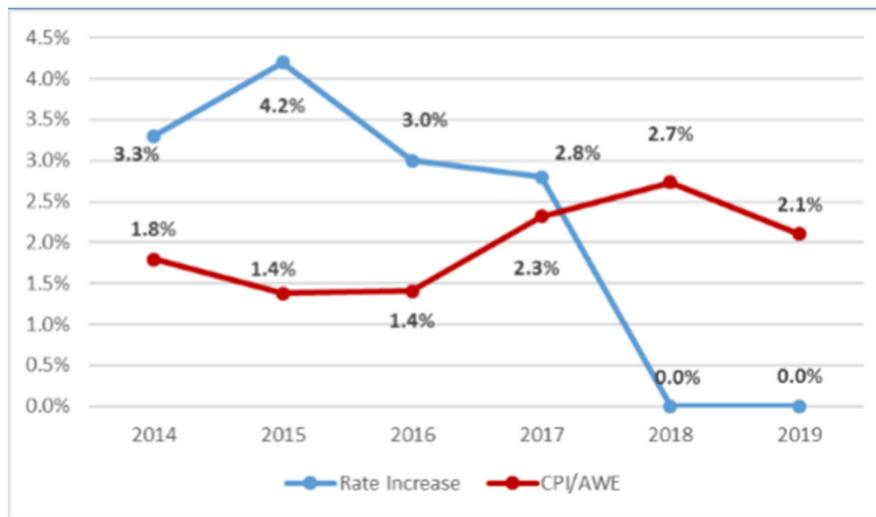
²⁶ Ibid., pp. B-41–B-42.

Figure 3: FEI Delivery Rate Changes during the Current PBR Plan Term²⁷



As depicted in Figure 4 below, FBC's rate increases were in the 3.0 to 4.2 percent range and trended downwards resulting in a compound annual growth rate of 2.2 percent as compared to the approximately 2.0 percent inflationary rate. FortisBC states that the single most important factor impacting FBC rates over the term of the Current PBR Plans was the 40-year capacity purchase agreement with the Waneta Expansion Limited Partnership (WAX CAPA), which came into effect in 2015. In addition, year to year variances in flow-through items and unanticipated costs related to a retroactive Celgar Interim Billing Adjustment impacted rate changes. At the end of the Current PBR Plans, FBC reported a net balance in the Revenue Surplus deferral account of \$4.840 million (before tax). This, if taken within the Current PBR Plans, would have resulted in even lower rate increases than depicted below in Figure 4.²⁸

Figure 4: FBC Rate Changes during the Current PBR Plan Term²⁹



²⁷ Exhibit B-1, Figure B2-4, p. B-42.

²⁸ Ibid., pp. 43–44.

²⁹ Ibid., Figure B2-5, p. B-43.

2.1.4 Regulatory Efficiency Savings

FortisBC states that one of the benefits of multi-year rate plans is regulatory efficiency in the form of reduced regulatory costs and increased utility focus on managing and growing the business as well as creating operational flexibility to address the energy industry issues. FortisBC estimates that for FEI, the annual cost for the Current PBR Plan’s regulatory processes averaged \$415,000 as compared to an annual cost of \$780,000 for the most recent cost of service revenue requirements (RRA). For FBC, the results were similar, with an annual cost of the Current PBR Plan being \$360,000 in comparison to the \$660,000 for the most recent COS RRA.

FortisBC states that the time savings resulting from the reduced regulatory burden could be used to accomplish other tasks with internal resources rather than relying upon external expertise pointing to FEI’s 2016 rate design and the current proceeding as examples. In addition to these benefits, FortisBC believes the longer-term nature of an MRP frees up utility resources allowing the Utilities to focus on revenue-generating and load building activities in addition to meeting customer expectations and addressing other challenges and opportunities.³⁰

2.1.5 Overall Assessment of the Current PBR Plans

As noted in Subsection 2.1, FortisBC considers the Current PBR Plans to have resulted in sizable benefits to both the ratepayer and the Utilities. That said, FortisBC’s critical review of the Current PBR Plans’ performance indicates the need for some modifications before moving to the new ratemaking period. Those items that FortisBC considers to be strengths include the indexed O&M formula and the safeguard mechanisms including the earnings sharing mechanism, the capital dead band, the off-ramp provisions as well as the exogenous factor treatment. These “have been generally successful in fulfilling their purposes and should be maintained in future MRPs, although some modifications to improve administrative efficiency and ease of understanding might be appropriate.”³¹ As for weaknesses, FortisBC submits that the capital formulas for both FEI and FBC failed to provide sufficient funding to support the Utilities’ investment needs with the result that actual capital expenditures consistently exceeded formula-driven amounts each year. In addition, the Current PBR Plans were not designed to prepare either FEI or FBC for long-term challenges and instead focused primarily on the achievement of cost efficiencies.³²

Positions of Interveners

MoveUP

In MoveUP’s view, the Current PBR Plans’ mechanism has done reasonably well with respect to “constraining the Utilities’ rates and returns to a just and reasonable level”. Pointing to Bell’s evidence, MoveUP notes that while the Utilities consistently earned at least their allowed equity returns, the actual equity returns did not exceed the allowed level by an appreciable amount. This is an indication that the PBR mechanism “was rigorous enough to ensure the Utilities were not able to generate significant excess returns.”³³ A main benefit of the indexing model is the reduction in regulatory burden but it also creates a stable and predictable funding model

³⁰ Exhibit B-1, pp. B-39–B-40.

³¹ Ibid., p. B-45.

³² Ibid., pp. B-44–B-48.

³³ MoveUP Final Argument, p. 6.

allowing the Utilities “to plan effectively and operate flexibly and proactively in response to changing market conditions.” In addition, indexing models create efficiency benefits for customers and if, following the end of the Current PBR Plan terms, such cost savings are reflected in new base rates, they will benefit customers over the long term.³⁴

BCSEA

BCSEA, while providing support for moving forward with the Proposed MRPs, does not take a firm position on the success or failure of the Current PBR Plans. BCSEA states that its position to move forward with an MRP is a practical one based on all of the parties and the BCUC having gained six years experience with the PBR rate-setting approach for FEI and FBC.³⁵

CEC

The CEC states that for each of the years 2014-2018, FEI has underspent the O&M formula in amounts ranging from \$699,000 or 1.33 percent to \$1,757,000 or 3.28 percent and these savings have contributed to enhanced ROE in each year of the Current PBR Plans. In its view, these O&M savings have resulted in inappropriate payoff benefits to the Utilities for investments required to achieve the benefit. The CEC points to FortisBC’s elimination of unneeded FTE positions and then receiving one-half of the net formula benefit of these savings over a number of years as an example. This has made the cost of the benefits received by ratepayers excessive.

The CEC submits that the ROE variances before earnings sharing (depicted below in Table 5) indicate the formula number was likely higher than needed and if the MRPs almost always result in enhanced ROE, the formulas are not sufficiently challenging. Moreover, it concludes there is no persuasive evidence the Utilities’ operations have become more efficient from a cost benefit perspective.

Table 5: FEI and FBC ROE Variances Before Earnings Sharing

FEI	2014	2015	2016	2017	2018
Achieved before-sharing ROE	9.54%	9.51%	9.65%	9.25%	8.99%
Approved ROE	8.75%	8.75%	8.75%	8.75%	8.75%
Variance	0.79%	0.76%	0.90%	0.50%	0.24%

FBC	2014	2015	2016	2017	2018
Achieved before-sharing ROE	9.29%	9.35%	9.52%	9.41%	9.32%
Approved ROE	9.15%	9.15%	9.15%	9.15%	9.15%
Variance	0.14%	0.20%	0.37%	0.26%	0.17%

The CEC states that it continues to stand by the various comments it has made regarding the Current PBR Plans and their results over the course of the Annual Reviews. Its key issues relate to the transparency of the cost benefit relationship under PBR and include the following:

- Regular and major initiative spending;
- Negative impacts of capital deferrals,
- Adequacy of forecasting;

³⁴ MoveUP Final Argument, p. 7.

³⁵ BCSEA Final Argument, p. 11.

- Rewarding the Utilities for basic prudent management;
- Lack of project benefits accruing to ratepayers who fund capital spending; and
- Increases in FTE's towards the end of a PBR.³⁶

The CEC submits that to the extent that the BCUC “expects to make long-term changes to regulation, it should ensure that the changes do not simply ‘always’ result in enhanced ROE...”³⁷

BCOAPO

BCOAPO states the only evidence the Current PBR Plans were successful is the Utilities’ achievement of their ROE.³⁸ BCOAPO notes that FEI and FBC have achieved their formula returns in each of the years of the Current PBR Plans, and while achieving the allowed ROE is not a perfect indicator of success, it is the only empirical evidence of whether all of the components of PBR work when put into operation together.³⁹

BCOAPO observes that FEI’s overearnings averaged 0.38 percent above the allowed ROE. At the same time O&M was under-spent in each of these five years for a total saving of \$46.350 million. Consequently, the pre-tax return on equity was higher than it would have been had the approved O&M been spent. BCOAPO states that this “illustrates that FEI has a clear financial incentive to underspend on O&M during a PBR plan...so as to inflate earnings while ‘catching up’ at the start of the next plan by adjusting base rates.”⁴⁰

ICG and BCMEU

Neither ICG nor BCMEU made specific submissions with respect to the success or the failure of the Current PBR Plans and provided no detailed assessment.

FortisBC Reply Argument

FortisBC states that contrary to intervener submissions with respect to under spending or overearning, the Current PBR Plans imposed challenging efficiency targets that were difficult to achieve, and these resulted in lower ROE’s than were achieved under COS ratemaking. It argues that the Current PBR Plans were successful in providing an environment to allow the Utilities to create efficiencies and customers benefited from those efficiencies through lower rates. Further, customers will continue to benefit going forward as many of these savings are embedded in the base O&M.

FortisBC states that the CEC’s claims with respect to formulas being overly generous did not consider the facts. Base O&M and Base capital and the formulas were the result of a rigorous and lengthy proceeding before the BCUC and highly scrutinized to ensure they were not overly generous. In addition, the BCUC imposed challenging productivity factors as well as a less typical 50 percent growth multiplier within the Current PBR Plans which made the formulas challenging.⁴¹

³⁶ CEC Final Argument, pp. 4–6.

³⁷ Ibid., p. 6.

³⁸ BCOAPO Final Argument, p. 48.

³⁹ Ibid., p. 54.

⁴⁰ Ibid., p. 12.

⁴¹ FortisBC Reply Argument, pp. 8–10.

FortisBC notes that BCOAPO’s view differs greatly from that of its expert, Bell who indicated there was no need for FEI and FBC’s O&M and capital formulas to change. FortisBC further mused that from Bell’s perspective, “the ROEs achieved by FEI and FBC must have appeared modest in comparison to the ROE’s achieved by Alberta utilities under PBR.”⁴²

Panel Determination

The Panel is persuaded that the Current PBR Plans were successful and both ratepayers and the Utilities benefited. Despite intervenor concerns with regard to ROE earnings, we find that earnings above the allowed ROE were within an acceptable range and we do not consider them to be excessive. The Panel also finds the level of customer rate increases during the Current PBR Plans to be in the acceptable range, noting that they were close to or slightly below the rate of inflation.

FortisBC argues that the Current PBR Plans have resulted in sizable benefits to both the ratepayer and the Utilities and the Current PBR Plans have been reasonably successful despite the issues related to the funding of capital. Throughout the Current PBR Plans, FortisBC has focused on efficiency improvements resulting in O&M savings relative to formula-driven amounts. This has resulted in modest delivery rate increases relative to inflation for both FEI and FBC. The Utilities were able to achieve this despite going through a period of high growth which contributed to significant over-spending on capital during the Current PBR Plans’ term. In the view of the Panel, the primary reason for moving forward with a multi-year performance-based framework is to encourage such savings thereby creating modest delivery rate increases. This has been largely achieved.

Intervenors who commented specifically on the success of the Current PBR Plans have mixed views. While some intervenors expressed support for the results achieved, the CEC and BCOAPO have raised concerns with FEI and FBC consistently achieving ROE earnings in excess of allowed levels and question whether the formulas have been too generous. The Panel disagrees noting that FortisBC points out the achieved ROE was lower over the Current PBR Plan period than under recent COS frameworks.

Tables 6 and 7 below outline allowed versus actual ROE earnings comparisons after-sharing for recent PBR and non-PBR periods for FBC and FEI. The average earned ROE positive variance for FBC under PBR at 0.14 percent is significantly lower than the 0.84 percent under the most recent COS ratemaking period. For FEI the differences are much smaller with the average variance under PBR being 0.38 percent, an amount comparable to the 2010 to 2013 period where the average ROE positive variance was 0.39 percent.⁴³

Table 6: FBC Allowed vs Actual ROE 2012 to 2018⁴⁴

FBC	2012 (COS)	2013 (COS)	2014 (PBR)	2015 (PBR)	2016 (PBR)	2017 (PBR)	2018 (PBR)
Allowed	9.90	9.15	9.15	9.15	9.15	9.15	9.15
Actual	10.52	10.21	9.22	9.26	9.38	9.31	9.29
Variance	0.62	1.06	0.07	0.11	0.23	0.16	0.14

⁴² FortisBC Reply Argument, p.10.

⁴³ These figures were determined by adding the variances for each year under PBR and under cost of service and dividing these totals by the number of years.

⁴⁴ Exhibit B-17, ICG IR 12.1; Exhibit B-5, BCOAPO IR 24.3.1.

Table 7: FEI Allowed vs Actual ROE 2010 to 2018⁴⁵

FEI	2010 (COS)	2011 (COS)	2012 (COS)	2013 (COS)	2014 (PBR)	2015 (PBR)	2016 (PBR)	2017 (PBR)	2018 (PBR)
Allowed	9.50	9.50	9.50	8.75	8.75	8.75	8.75	8.75	8.75
Actual	9.42	10.15	10.12	9.12	9.20	9.19	9.28	9.04	8.93
Variance	-0.08	0.65	0.62	0.37	0.45	0.44	0.53	0.29	0.18

With respect to ROE exceeding allowed amounts, the Panel expects that the Utilities would take steps to find efficiencies and reduce costs resulting in higher than allowed ROE levels in a multi-year performance-based framework. However, based on the information provided in Tables 6 and 7, the achieved ROE levels were not excessive and fell well below those required for an off-ramp. Further, compared to COS ratemaking periods, the results from the Current PBR Plans show that earnings in excess of allowed ROE are equal to or less than those achieved under COS.

The Panel acknowledges there was concern the formulas would not operate optimally and allowed ROE could be significantly exceeded over the Current PBR Plans' term. Because of this concern, safeguard mechanisms such as off-ramps, capital dead bands and flow through deferral accounts were established to mitigate the risk of unforeseen and unintended consequences. As discussed by FortisBC, these seem to have worked reasonably well and while ROE levels have exceeded those approved, as noted above, they have not come close to triggering an off-ramp.

An important measure that has not been put forward by any of the parties in this proceeding is the Utilities' performance on Service Quality Indicators (SQIs). Under the Current PBR Plans, the performance on SQIs by the Utilities has, with few exceptions, been within acceptable margins. This indicates that despite some of the cost-saving efficiency measures that have been put in place, the level of service on the key SQI indicators has been maintained. **The Panel therefore finds these positive SQI results to be a further indication that the Current PBR Plans have been successful.**

Finally, the Panel notes that FortisBC has reported significant average annual regulatory savings in the range of \$365,000 for FEI and \$300,000 for FBC. These amounts, while not determinative, do point to tangible savings that have been realized by the Utilities due to the reduced regulatory processes.

2.2 Continuation of a Multi-year Performance-based Framework

In the proceedings to review the Current PBR Plans, there was concern among the interveners with respect to the Proposed MRPs and there was little support for moving forward with them.⁴⁶ As discussed in Subsection 2.1, the Panel considers the Current PBR Plans to have been successful and were beneficial to both customers and the Utilities.

In this Application, FortisBC proposes numerous changes to the original PBR many of which have raised concerns among the interveners. Some interveners have questioned whether it is appropriate to move forward with

⁴⁵ Exhibit B-5, BCOAPO IR 24.3.1; FEI Application for its Common Equity Component and Return on Equity (ROE) for 2016, Exhibit B-9, BCUC IR 31.2.

⁴⁶ FEI Current PBR Plan Decision, pp. 9–14; FBC Current PBR Plan Decision, pp. 9–14.

approving this MRP Application even with potential modifications. Of these, some have proposed that an alternative form of regulation such as the more traditional COS approach would be appropriate.

The issue the Panel addresses below is whether the Proposed MRP approach with modifications is appropriate or whether an alternative rate setting methodology such as a traditional COS framework would be more appropriate.

FortisBC's position is that the success of the Current PBR Plans and the merits of the Proposed MRPs warrant continuation of a similar approach over the next test period. It describes its approach to the Proposed MRP as building on the success of the Current PBR Plans and using them as a starting point. In FortisBC's view, for a multi-year performance-based framework to continue to be successful, changes are required to address a number of key issues facing FEI and FBC. Key among these issues are (1) changes in the operating environment; (2) weaknesses in the existing plan; and (3) stakeholder feedback on various elements with consideration of the experiences of other jurisdictions under a multi-year performance-based framework.⁴⁷

Changes in the Operating Environment

FortisBC has identified five key operating environment influences that it needs to respond to. These factors demonstrate the need for changes to the Current PBR Plans to address these influences in the Proposed MRP.

These key influences are identified as follows:

- i) Government policy direction and mandate towards decarbonization;
- ii) Rising customer expectations with respect to service and engagement channels;
- iii) Increased need for engagement with stakeholders and Indigenous communities;
- iv) Increased need for maintenance and investment in aging infrastructure; and
- v) Need for innovation and adoption of technology⁴⁸

Weakness of the Current PBR Plans

While considering that overall the Current PBR Plans were a success, FortisBC identified two weaknesses areas where it believes changes are needed. As outlined in Subsection 2.1.2, both FEI and FBC had challenges with the sufficiency of capital formulas. The fact that approved capital formulas did not provide sufficient funding for FEI and FBC to meet their needs, resulted in both Utilities exceeding formula driven amounts over the Current PBR Plans' term. A second shortcoming identified by FortisBC was what it believes to be insufficient promotion of innovation. It believes alternative incentive frameworks designed to encourage innovation can complement the more traditional ratemaking models.⁴⁹

Stakeholder Feedback

FortisBC reports that between 2017 and 2018 it initiated several initiatives with intervener stakeholders to facilitate consideration of their interests and concerns. These included meeting to update stakeholders on its next-generation approach, a Benchmarking Study workshop, a workshop to review MRP plans and COS

⁴⁷ FortisBC Final Argument, p. 17.

⁴⁸ FortisBC Final Argument, pp.17-22.

⁴⁹ Exhibit B-1, pp. B-46–B-48; FortisBC Final Argument, pp. 23–24.

regulation and the 2018 Annual Review for FEI. FortisBC reports that some interveners expressed concern about its intention to file another PBR and the lack of openness to another type of rate making. FortisBC summarized some of the highlights and comments regarding continuing with a PBR versus moving to COS:

- Some interveners questioned the appropriateness of another PBR;
- One intervener commented that neither PBR or COS meets the needs of the current situation (climate change and the requirement for low carbon emissions are predominant issues for the utility to work through);
- This is the time to take a break and redesign the structure and framework to aid in the transformation of the utility;
- An evaluation would be necessary before the next ratemaking agreement is considered; and
- FortisBC's expert Dr. L. Kaufmann (Kaufmann) asserted that the ability to manipulate results is possible under both COS and PBR regimes.

FortisBC also reports that during the 2018 FEI Annual Review, intervener stakeholders acknowledged some positive aspects of the Current PBR Plans but expressed concern with moving forward with another PBR without a full understanding of what benefits the ratepayer gained from the Current PBR Plans.

Overall, FortisBC identified several areas warranting revision and many of the comments (especially those related to capital expenditures) have resulted in changes to the Proposed MRPs. It acknowledges it was unable to address all concerns and highlighted its proposed 5-year capital forecast approach as being contentious with some interveners remaining categorically opposed.⁵⁰

Jurisdictional Review

FortisBC states that other jurisdictions in Canada and the United States also informed the design of the Proposed MRPs. Their review specifically included major Canadian MRPs and incentive frameworks within the USA. With respect to the Canadian MRPs, the key high-level conclusions were as follows:

- Most plans cover both O&M and capital expenditures; those with highly variable capital plans were often based on forecast;
- Most plans include a composite inflation factor and an X-Factor (inclusive of a stretch Factor);
- Most plans include some form of incremental capital funding mechanism outside inflation minus productivity (I-X) to accommodate lumpy capital requirements. Challenges with respect to the treatment of capital are universal.
- All plans include some safeguards to protect both the ratepayer and the utility (i.e. ESMs, off-ramps, re-opener mechanisms); and
- All plans include SQI's without an automatic reward or penalty.

With respect to alternative incentive frameworks, FortisBC reports that both California and New York have used

⁵⁰ Exhibit B-1, pp. B-58–B-66; FortisBC Final Argument, pp. 24–25.

performance incentives for years. Some of these have been targeted at promoting new expectations such as system efficiency, energy efficiency, interconnection, customer engagement and affordability.

In summary, FortisBC states there is no ‘one size fits all’ MRP model that can be relied upon and an incentive package must be tailored to meet specific needs. The factors it has highlighted demonstrate changes to the Current PBR Plans that need to be addressed and applied in the Proposed MRPs.⁵¹

Positions of Interveners

A number of interveners expressed concern with moving forward with FortisBC’s Proposed MRPs and made recommendations to the BCUC as to how this Application should be handled. The concerns raised by these interveners and their recommendations along with the comments of other interveners are summarized below.

CEC

The CEC states that its concern is that the formulas provided essentially incent the Utilities to work the system with the premise being that the benefits are shared. From the CEC’s perspective, ratepayers are paying extra for specific identifiable management actions that it believes should be considered normal management responsibilities where benefits would accrue to ratepayers. In the CEC’s view, the incentive should not be paid for under spending O&M or capital but instead for wisely spending with consideration of the cost-benefit relationship.⁵²

The CEC argues there is no persuasive evidence to support FortisBC’s view that having such incentives encourages a continued focus on efficient operations any more than would occur under prudent management. The CEC also submits there is no evidence the Utilities have become more efficient from a cost-benefit perspective under an incentive-based system. It is the CEC’s opinion that FortisBC’s focus has been on reducing costs to secure the incentive payment. Moreover, due to the lack of opportunity to vet spending it is difficult to determine whether a cost reduction is beneficial overall or simply the result of an overly generous formula.⁵³

The CEC notes that O&M savings have contributed to an enhanced ROE for both Utilities for each year of the Current PBR Plans’ term and states that the result has been inappropriate payments to the Utilities for investments required to achieve the benefits. The CEC submits that the ROE results during the Current PBR term indicate that the formula resulted in higher than needed O&M amounts and consequentially, the formulas are not sufficiently challenging. In its view, a PBR/MRP should have a very detailed review and justification that shows any extra earnings are the result of exceptional management and not an overly generous formula or base.⁵⁴

The CEC submits “a preferred form of regulation could be to establish formulas on a long-term basis for setting most of the Utilities controllable costs but hold the Utilities to a high ‘bar’ in the establishment of the cost-effectiveness presumption of prudence.” The CEC continues “The Utilities could then ‘keep’ whatever they are

⁵¹ Exhibit B-1, pp. B-66–B-76; FortisBC Final Argument, pp. 25–27.

⁵² CEC Final Argument, pp. 2–3.

⁵³ *Ibid.*, p. 3.

⁵⁴ *Ibid.*, pp. 4–6.

able to achieve over and above the challenging formulas and the rate paying customers should benefit from periodic rebasing of the 'bar' used for rate making to achieve cost-effective service performance."⁵⁵ The CEC states that an advantage of COS is frequent rebasing of revenue requirements but it "would support a long-term approach to formulas for controllable costs with regular rebasing points and believes this would be an efficient regulatory approach as well as an effective approach for giving the Utilities the opportunity to demonstrate prudent cost-effective management."⁵⁶

BCSEA

BCSEA states that it supports the continuation of PBR-style plans for the Utilities for the next five years. BCSEA's support is based on two considerations. First, neither the Current PBR Plans nor the Proposed MRPs inhibit a priority for BCSEA, Demand Side Management Activities. Second, both the Current PBR and the Proposed MRP Plans will allow the Utilities to carry out and expand their carbon reduction activities. BCSEA states that practicality supports the continuation of a PBR-type approach for both FEI and FBC over the next five years.⁵⁷

ICG

ICG states that the Proposed MRP is neither a PBR approach nor a COS approach and is instead a hybrid approach relying on flow through mechanisms and deferral accounts. ICG states that under traditional COS utilities can recover prudently incurred costs plus a return as determined by the Fair Return Standard. Under PBR, utilities are allowed prudent costs and a return, and in addition, an incentive. ICG states that customers pay these incentives and benefit only in those instances where the efficiency gains would not have been achieved under traditional cost of service. It points out that in this Application FortisBC does not advance any efficiency initiatives and therefore, there is no evidence that efficiency gains will offset the cost of the incentives.⁵⁸

ICG notes that FortisBC refers to actual results that are lower than the index-based formula as savings. In ICG's view these could just as accurately be described as "excess returns" due to an O&M formula or X-Factor that is unfair to customers. FortisBC never considers the possibility that excess revenues have been collected from customers and there is a need to adjust the O&M formula through the X-Factor. In the case of FBC, realized returns have exceeded those allowed in all but one year since 2003. ICG argues that, this points to a long series of indexed-based formulas that are not fair to customers and it is unwilling to support a further attempt to rely on this type of approach.⁵⁹

In ICG's view, the record does not support consideration of any rate-setting alternatives other than an extension of the Current PBR Plans, the Proposed MRPs or COS. Of these ICG recommends the selection of a one to two-year COS as an appropriate approach to rate setting. During this period the BCUC can consider an appropriate approach to rate setting.⁶⁰

⁵⁵ CEC Final Argument, p. 4.

⁵⁶ Ibid., p. 4.

⁵⁷ BCSEA Final Argument, p. 5.

⁵⁸ ICG Final Argument, pp. 3-4.

⁵⁹ Ibid., pp. 4-5.

⁶⁰ Ibid., p. 5.

BCMEU, MoveUP and BCOAPO

BCMEU states that it does not take a firm position as to whether COS or performance-based regulation is more appropriate at this time. It points out the Utilities have operated under PBR longer than any utility in Canada and, as a result, have been benchmarked as relatively efficient among their peers.⁶¹

MoveUP makes no specific comment with respect to whether an alternative form of regulation would offer more benefits and should be considered. However, its Final Argument seems to be in support of the Current PBR Plans and many of the recommended changes within the Proposed MRPs.⁶²

BCOAPO make no specific reference to the Current PBR with respect to other regulatory alternatives. However, the BCOAPO strongly encourages the BCUC to have “an audited, results oriented outcome, before any targeted or other new multi-million-dollar incentive plan proposal is approved....”⁶³ In addition, BCOAPO submits the Proposed MRPs must be “solid: justified and justifiable.” Its view is that this is currently not the case thereby leaving the BCUC with options of either rejecting them and returning to a COS framework or making modifications to what is being proposed.⁶⁴

FortisBC Reply Argument

FortisBC notes that ICG holds a misconception that under COS regulation, returns would be limited to the Fair Return Standard. It explains that under PBR or COS ratemaking the utility’s actual return could be higher or lower than the approved return, that is, if a company is under COS ratemaking and spends less than approved or billing units are greater than forecast, the company is generally permitted to keep the additional earnings. Under COS any such savings or gains are usually 100 percent in favour of the shareholder. Thus, as outlined by FortisBC, a utility under COS is incented to spend less than the approved forecast but, in doing so, may create unsustainable savings rather than lasting efficiencies.⁶⁵

FortisBC takes issue with the CEC’s claim that a benefit of COS ratemaking is frequent rebasing and argues it is also a disadvantage. That is, it increases the regulatory burden and provides little incentive for the utility to undertake longer-term cost initiatives. This is because much of the benefit of sustained savings would be passed on to customers in subsequent rate proceedings and would not accrue to the Utilities.⁶⁶

FortisBC also disagrees with the characterization of MRPs as being a reward for normal management responsibilities as well as the claim there was no evidence there will be efficiency gains over the Proposed MRP term. FortisBC argues these positions fail to recognize that searching for more ways to be productive is not a normal management action but rather a discovery process that is brought about by incentives. In support of this view, it cites a Weisman and Pfeifenberger study which discusses how motivating performance through incentives “is generally superior to mandating desired performance levels and the realization of efficiency as a “discovery process” necessarily implies that a regulated firm cannot knowingly disavow and strategically

⁶¹ BCMEU Final Argument, pp. 1–2.

⁶² MoveUP Final Argument, p. 1.

⁶³ BCOAPO Final Argument, p. 4

⁶⁴ *Ibid.*, p. 54.

⁶⁵ FortisBC Reply Argument, p. 14.

⁶⁶ *Ibid.*, pp. 15–16.

withhold what it has yet to discover.” FortisBC submits that this article provides a solid response to the CEC’s view of incentive ratemaking frameworks.⁶⁷

In response to the CEC’s suggestion for a form of formulaic ratemaking based on holding the utility to a “high bar,” FortisBC argues the CEC proposal “is unclear and lacking support by any evidence, authority or cogent argument.” FortisBC’s position is that the CEC proposal must be rejected, as it has not met the evidentiary burden.⁶⁸

FortisBC concludes by submitting that the evidence and submissions in the proceeding provide overwhelming support for the continuation of an MRP. FortisBC argues that the interveners filed no evidence in support of COS ratemaking, nor did they make a case for COS ratemaking or another alternative.⁶⁹

Panel Determination

The Panel must determine whether to continue with a multi-year performance-based framework or, alternatively, to move to an alternative form of ratemaking such as COS. The foundation of FortisBC’s argument in favour of continuing with a performance-based framework is that it has worked well over the past six years and given this success should continue for another five years. As discussed in Subsection 2.1, the Panel agrees that the Current PBR Plans have been successful. However, FortisBC is not proposing continuing the Current PBR Plans. Instead, FortisBC has proposed a significantly modified MRP framework that addresses the identified shortfalls as well as issues related to the evolving business and environmental landscape. Intervenors do not appear to have the same point of view. Some have raised specific concerns while others, like ICG and the CEC strongly oppose proceeding further with the MRP ratemaking approach proposed by FortisBC.

One concern raised by ICG is that under a performance-based framework the incentives paid are in addition to earnings under the Fair Return Standard. FortisBC responds by stating that this is a misconception and under either framework returns can be higher or lower than the allowed return. Moreover, under a COS framework, the utility is often allowed to keep cost savings rather than sharing them with ratepayers as outlined under the Proposed MRP. The Panel agrees. Regardless of whether a performance-based framework or COS framework is employed, there is a potential for actual earnings to exceed the allowed ROE. Therefore, the Panel finds ICG has not persuasively demonstrated that a COS framework would improve upon a performance-based framework.

Another concern raised by ICG is that customers pay incentives under a performance-based framework but benefit only in those instances where such savings would not have occurred under COS. The Panel disagrees. Where there are savings under COS most of the benefit goes to the utility, at least until the following RRA. Under the Current PBR Plans and Proposed MRPs, many savings are shared and, if sustainable, those savings not covered by an efficiency carry-over mechanism (ECM) will accrue to the ratepayer upon rebasing in subsequent RRA periods. Therefore, the Panel finds that ICG’s concerns are misdirected in that under a performance-based framework the ratepayer sees an immediate benefit as compared to COS framework where the savings benefits might be passed on to ratepayers only in the next rate proceeding.

⁶⁷ Ibid., pp. 19–22.

⁶⁸ Ibid., p. 22.

⁶⁹ FortisBC Reply Argument, p. 24.

The CEC's concerns are centered around its not being satisfied that having an incentive-based framework encourages utilities to focus on efficiencies. Instead, a formulaic approach to ratemaking encourages utilities to work the system. In its view, additional earnings should be for exceptional management only, rather than what might be described as everyday prudent management. The Panel agrees with the CEC that some of the savings achieved are the result of what might be described as everyday prudent management and did not require a level of thinking or planning that might be considered exceptional. However, we note that the CEC's criticism also applies to a COS framework. A key difference is that under COS, ratepayers do not typically share in any of the savings or ROE earnings in excess of that allowed until the next rate proceeding.

Like ICG, the CEC has expressed concern that ROE earnings consistently exceeded BCUC allowed levels over the Current PBR Plans and believes this indicates the formulas are not sufficiently challenging. As outlined in Subsection 2.1.5, FortisBC has explained that the formulas were scrutinized in a rigorous and lengthy proceeding to avoid this problem and as approved, included safeguards like the productivity or X- factor and the 50 percent growth multiplier. The Panel notes that while there is no guarantee the formulas were perfect, the closeness of actual ROE earnings to allowed amounts indicates that in total, the formulas and safeguards applied appear to have done the job. As to consistently exceeding approved ROE levels, the Panel notes this trend is also prevalent under COS. As noted by FortisBC:

A review of FEI and FBC's achieved ROE and allowed ROE in historical years shows the FortisBC has failed to achieve its allowed ROE in some years while under PBR and has been able to achieve more than its allowed ROE under both COS and PBR ratemaking approaches. Notably, FEI did not achieve its allowed ROE in 1998 and FBC did not achieve its (sic) allowed ROE in 2002 and 2010, during which years the Utilities were operating under a PBR framework.⁷⁰

The CEC has also proposed an option for an alternative formula-based ratemaking approach. FortisBC has argued that the proposal is unclear and lacking evidential support and has not been presented cogently. The Panel agrees and finds that the CEC's proposal should be given no weight as it has been presented very late in the process and lacks sufficient detail to determine whether it could be made to work in a manner acceptable to the BCUC and FortisBC.

Based on these findings, there is insufficient evidence to suggest that moving to a COS or other alternative ratemaking approach would be preferable to a PBR/MRP mechanism as proposed by FortisBC. Nor is there any evidence to suggest that COS would produce rates that would be more just or fair than under a performance-based framework. **Therefore, the Panel determines, pursuant to section 60 (1) (b.1) of the UCA, that a multi-year performance-based approach will result in just and reasonable rates and a review of the Proposed MRPs Application is warranted.**

⁷⁰ FortisBC Reply Argument, p. 15.

3.0 Design of the Proposed MRPs

3.1 Background

3.1.1 FortisBC's Concerns with the Current PBR Plans

FortisBC states that “while the Current PBR Plans have been largely successful, there is a clear need to make adjustments to respond to the challenges with the capital formula, stakeholder feedback and the significant changes in FortisBC’s operating environment, including decarbonization policy at all levels of government.”⁷¹ Challenges with the capital formula have been discussed in some detail in Subsection 2.1.2 of this Decision which outlined how capital exceeded formula amounts in each year of the Current PBR Plans and included FortisBC’s explanations as to why this occurred. Subsection 2.2 provides a brief summary of stakeholder feedback and why Fortis BC believes that it needs to respond to factors influencing the operating environment which have changed for FEI and FBC.

This Section includes a review of all aspects of the Proposed MRP providing explanations and determinations on components that FortisBC proposes to change as well as those it proposes to carry forward into the Proposed MRPs. After a brief overview of the major changes proposed, there is a more detailed review of the proposed MRP components, SQIs, and financial off-ramps.

3.1.2 Overview of Proposed Changes to the Current PBR Plans

FortisBC states that the ongoing health of FEI and FBC will require a multi-year performance-based framework to provide stable levels of O&M funding, the incentive to invest in the future and the flexibility to innovate and adapt. Accordingly, FortisBC proposals include the following:

- A formula or index-based approach to O&M expense that FortisBC submits is designed to drive what it describes as a “do more with what we have” approach. Its proposal involves making adjustments to the productivity and growth factors in the Current PBR Plans. These adjustments are in recognition of decreased opportunities for savings, productivity growth trend within the industry that are negative, and a need for stable operating funds to be able to respond to cost pressures and significant challenges in FortisBC’s operating environment.
- A move from the current formula approach for much of the capital to a forecast approach for most capital. FortisBC states that this change is in response to challenges experienced with capital under the Current PBR Plans, stakeholder feedback and the inability of index-based to accommodate the lumpy nature of certain capital. Any variances between actual and forecast capital will continue to be subject to the ESM.
- The addition of an ECM. FortisBC states this is to ensure there is a powerful incentive to achieve efficiencies over the complete MRP term of five years.
- Updates to SQIs based on improved historical performance and stakeholder feedback.
- The addition of new targeted incentives that are designed to promote the achievement of challenging policy and customer service goals. These recognize the challenges and opportunities coming from the increase in policies aimed at decarbonisation.

⁷¹ FortisBC Final Argument, p. 2.

- A new Clean Growth Innovation Fund that responds to the need for a higher level of innovation needed to respond to customer expectations as well as decarbonisation policy at various levels of government.
- Based on studies that have been performed FortisBC also seeks approval of: (1) updated lead-lag days and resulting working capital; (2) updated depreciation and net salvage rates; (3) updated capitalized overhead rates; (4) a new methodology for the allocation of shared services; and (5) an updated methodology for the calculation of corporate services costs.

FortisBC states that with these proposed adjustments the Proposed MRPs will remain balanced and achieve the benefits of incentive-based ratemaking.⁷²

3.2 Components of the Proposed MRP Plans

3.2.1 Index-based Approach for O&M

Consistent with the Current PBR Plans, FortisBC proposes to continue with a formula or index-based approach to FEI and FBC's controllable O&M.⁷³ In this Subsection the Panel reviews FortisBC's index-based approach to controllable O&M and considers whether continuation of this approach is warranted. As discussed in Subsection 3.2.8 below, FortisBC proposes that O&M expenditures that are considered outside the control of the Utilities (i.e. non-controllable expenses) be determined on a forecast basis.

For controllable O&M, FortisBC proposes to determine O&M costs on a per customer basis. Each year the previous year's Base O&M per customer amount will be adjusted by inflation and then multiplied by a forecast of the average number of customers. FortisBC proposes that the average number of customers be calculated as the twelve-month average of the forecast number of customers and will be subject to a true-up in subsequent years, which will eliminate the impact of any forecast variances. This is represented formulaically, as follows:⁷⁴

$$OM_t = UCOM_{t-1} * (1 + I) * AC_t$$

- t is the test (or forecast) year;
- I is the inflation factor and is lagging by one-half year;
- UCOM is the Unit Cost O&M; and
- AC is the forecast of average number of customers

In the first year of the Proposed MRP terms, FortisBC proposes to base the $UCOM_{t-1}$ on the 2019 Base O&M for FEI and FBC. The 2019 Base O&M is reviewed in Subsection 4.1 of this Decision. FortisBC explains that the 2019 Base O&M serves as the base on which an escalation formula is applied to determine controllable O&M funding during the proposed MRP term.⁷⁵

In both, the Current PBR Plans and the Proposed MRPs growth and inflation factors are applied to total controllable O&M and then this amount is varied by the average number of customers.⁷⁶ However, in the

⁷² FortisBC Final Argument, pp. 2–3.

⁷³ Exhibit B-1, p. C-49; FortisBC Final Argument, p. 40.

⁷⁴ FortisBC Final Argument, pp. 40-41.

⁷⁵ Exhibit B-9, MoveUP IR 6.1.

⁷⁶ Exhibit B-10, BCUC IR 21.1; FortisBC Final Argument, p. 41.

Proposed MRPs, FortisBC proposes to change its presentation and use an O&M per customer approach. It states the use of O&M per customer provides:

- A transparent year-over-year view of how much the Utilities are forecasting to spend on a per customer basis; and
- A transparent true-up mechanism, where FEI and FBC are responsible for O&M unit cost variances but customer count-related forecast variances are trued-up.⁷⁷

FortisBC also states that the proposed O&M formula includes two other changes:

1. A proposal to use a forecast of average number of customers, subject to a true-up to eliminate any forecast variances, which eliminates the lag and 50 percent multiplier from the growth factor. This proposal is addressed in Subsection 3.2.3; and
2. A proposal to use an implicit zero percent productivity factor, in line with productivity growth trends in the industry. This proposal is addressed in Subsection 3.2.6.

FortisBC argues that the success of the O&M formula under the Current PBR Plans confirms that controllable O&M is suitable for a formula or index-based approach and that the continuation of this approach is warranted. It also submits this index-based approach to O&M for the Proposed MRPs will continue to provide an incentive to FEI and FBC to find efficiencies.⁷⁸

Positions of Interveners

BCSEA and MoveUP

BCSEA and MoveUP support the proposal to continue with an index approach to FEI and FBC's controllable O&M.⁷⁹

ICG and CEC

As noted in Subsection 2.2, ICG and the CEC do not support the Proposed MRPs. ICG submits that FBC has earned higher returns than allowed under the Fair Return Standard in every year since 2003. This indicates that there has been a "long series of index-based formulas" that is not fair to customers. For this reason, ICG does not support "another attempt" to establish an index-based formula approach to determining overall revenue requirements during the term of FBC's Proposed MRP.⁸⁰

The CEC submits that the formula approach to O&M is subject to risk for overestimating O&M requirements, which would enable the Utilities to earn extra reward without necessarily achieving any sustainable cost reductions.⁸¹ The CEC argues that the unit cost O&M per customer amount approach should be rejected because the formula proposed "will likely be overly generous."⁸²

⁷⁷ FortisBC Final Argument, p. 41; Exhibit B-10, BCUC IR 21.1.

⁷⁸ FortisBC Final Argument, p. 42.

⁷⁹ BCSEA Final Argument, p. 12; MoveUP Final Argument, pp. 13-17.

⁸⁰ ICG Final Argument, pp. 4-5.

⁸¹ CEC Final Argument, p. 10.

⁸² *Ibid.*, pp. 35-36.

BCMEU and BCOAPO

BCMEU and BCOAPO do not comment specifically on the approach but focus on the design of the formula, including the proposed growth and productivity factors and in the case of BCOAPO, the 2019 Base O&M calculation.

FortisBC Reply Argument

FortisBC did not specifically address the appropriateness of continuing with an index-based approach for O&M in its reply argument.

Panel Determination

The Panel approves the continuation of a formula or index-based approach for FEI and FBC Controllable O&M.

In Subsection 2.2, the Panel agrees with FortisBC that the Current PBR Plans have been successful and determines that continuation of multi-year performance-based framework is desirable. Using a formula or index-based approach where there are a limited and identifiable number of factors driving costs is consistent with that determination, provided the design and application of the formula produce a reasonable estimate. In the Panel's view, an appropriately designed formula can address ICG's concerns that applying an index-based formula may result in a utility earning more than a fair return as well as the CEC's concern that using a formula may overestimate O&M requirements.

The Panel agrees with FortisBC that retaining an index-based approach for controllable O&M is supportable. FortisBC demonstrates there is still a strong link between FEI and FBC controllable O&M and the factors driving costs.

3.2.2 Index-based Approach for FEI Growth Capital

FEI proposes to continue a formula or index-based approach for FEI Growth capital, with adjustments to address the challenges of managing capital within the formula amounts under the Current PBR Plans.⁸³ In this Subsection, the Panel considers whether continuation of the index-based approach for FEI Growth capital is warranted and if so, should Gross Customer Additions be the primary element used for the growth factor. FortisBC proposes a forecast approach for FEI's Sustainment and Other Capital and all FBC's Capital and we consider this approach in Subsection 4.4.

FEI Growth capital expenditures are necessary to attach new customers to the gas distribution system. FortisBC explains these expenditures include the installation of new mains, services, meters and distribution system improvements to serve new customers.⁸⁴ FortisBC proposes to continue with a unit cost approach to determining FEI Growth capital and to use forecast Gross Customer Additions to replace the lagging 50 percent of actual service line additions. FortisBC also proposes to re-base the cost per customer amount used in the formula.⁸⁵

⁸³ FortisBC Final Argument, p. 43.

⁸⁴ Exhibit B-1, p. C-56.

⁸⁵ Ibid., p. C-58.

FortisBC explains the inputs used for calculating FEI Growth capital under the Proposed MRP include:

- The 2019 Unit Cost Growth Capital Base;
- A forecast of Gross Customer Additions; and
- The composite I-Factor value.

FortisBC proposes the following equation for FEI Growth capital (GC):⁸⁶

$$GC_t = UCGC_{t-1} * (1 + I) * GCA_t$$

- t is the test (or forecast) year.
- I is the inflation factor and is lagging by one-half year. The I-factor is a composite inflation factor including 45 percent BC-CPI plus 55 percent BC-AWE. The half-year lag is accomplished by comparing the most current July to June period with twelve months prior July to June period.
- UCGC is the Unit Cost Growth capital.
- GCA is the Gross Customer Additions forecast.

The proposed formula reflects a unit cost approach to Growth capital where the formula is applied to FEI's Growth capital cost per Gross Customer Addition, rather than to the total Growth capital amount. FortisBC submits the unit cost approach increases the transparency of FEI's unit costs and facilitates a true-up mechanism to eliminate any forecast errors in forecast Gross Customer Additions. FortisBC also states that the unit cost approach is a presentation change but does not change the resulting Growth capital amounts from the approach taken under the Current PBR Plans.⁸⁷

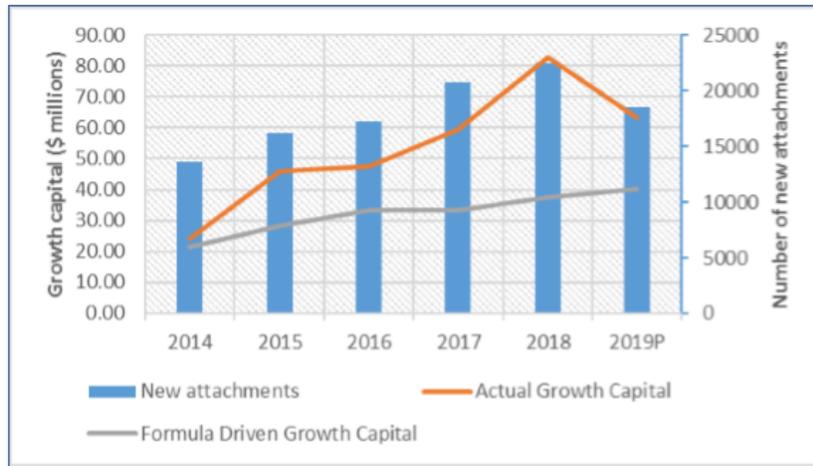
FortisBC proposes that retaining an index-based approach for FEI's Growth capital as this category of capital has a clear and direct connection to a cost driver and can be suitably managed within a formula. FEI states the proposed adjustments to the formula are needed to correct for the experience under the Current PBR Plans "which did not track the driver of Growth capital costs."⁸⁸ FEI states that the Current PBR formula failed to respond to the rise in new customer attachments, as illustrated in Figure 5 below:

⁸⁶ Exhibit B-1, p. C-59; FortisBC Final Argument, p. 44.

⁸⁷ FortisBC Final Argument, p. 44.

⁸⁸ Ibid., p. 43.

Figure 5: FEI Trend in New Attachments Compared with Actual and Formula-driven Growth Capital⁸⁹



In each Annual Review, FortisBC proposes to forecast Gross Customer Additions, subject to a true-up in each subsequent year. FortisBC states that Gross Customer Additions is the most reasonable growth factor, as follows:

- Gross Customer Additions is the primary cost driver of FEI’s Growth capital expenditures;⁹⁰
- While the correlation between service line additions and the spending on mains, services, and system improvements is roughly equivalent to the correlation between Gross Customer Additions, the spending on mains, services, and system improvements, expenditures on meters is more closely tied to customer additions;⁹¹
- Given the shift in the market to more multi-family dwellings, Gross Customer Additions reflect the number of customers attaching irrespective of the number of service lines because more customers are attaching to each service line than have in the past primarily due to more densified housing construction; and⁹²
- Gross Customer Additions are a superior growth factor to average number of customers since the primary cost driver for Growth capital is the addition of customers, not the average number of customers. The average number of customers includes customers that move in and move out of premises.⁹³

FortisBC concludes that the continuation of an index-based approach for FEI’s Growth capital is warranted, despite the challenges with managing capital within formula amounts under the Current PBR Plans. FEI submits Growth capital is a suitable candidate for an index-based approach since Growth capital has a clear and direct causal connection to a driver of growth - Gross Customer Additions. FEI submits that its proposed Growth capital formula using an inflation-index, a forecast and true-up of customer additions, an implied zero percent

⁸⁹ Exhibit B-1, Figure B2-3; p. B-35; FortisBC Final Argument, p. 43.

⁹⁰ FortisBC Final Argument, p. 45.

⁹¹ Exhibit B-1, p. C-59.

⁹² Exhibit B-10, BCUC IR 41.2.

⁹³ Ibid., BCUC IR 20.1.

productivity factor and a rebased cost per customer amount addresses the challenges experienced under the Current PBR Plans. FEI states with “these adjustments, the continuation of a formulaic approach to FEI’s Growth capital is warranted.”⁹⁴

Positions of Interveners

The CEC was the only intervener to comment generally on the proposed FEI Growth capital formula. Specific intervener comments related to formula inflation, growth and productivity factors and rebasing of the cost per customer cost amounts are addressed elsewhere in the Decision.

Regarding the use of an index-based approach, the CEC submits that the variability of FEI’s capital expenditures and customer additions is very significant, and this is evidenced by a calculation of unit costs versus average unit costs. The CEC calculates annual variations in additions and costs of over 40 percent to 70 percent over a time period equivalent to an MRP term and submits such variations “do not represent an appropriate base for a formulaic approach to regulation and particularly one proposed with incentives attached.”⁹⁵

FortisBC Reply Argument

FortisBC submits that the continuation of an index-based approach for FEI Growth capital is reasonable and should be approved. FortisBC states that the CEC appears to argue that variation in FEI’s Growth capital makes it unsuitable for an index-based approach. FortisBC argues that FEI’s Growth capital is suitable for an index-based approach, as follows:

- While there is variation in the costs caused by each addition, the strong link to an identifiable cost driver makes FEI Growth capital suitable to an index-based or formula approach;
- Gross Customer Additions is an improved cost driver compared to the use of Service Line Additions in the Current PBR Plans; and
- Despite the variation over the 2014-2018 period noted by the CEC, there is still a strong correlation of 0.95 percent between FEI’s Growth capital and Gross Customer Additions over that period.

Further, since FEI’s Unit Cost Growth capital has been rebased using 2016-2018 actual costs (with adjustments), FortisBC submits the approach to FEI Growth capital is prepared in fundamentally the same way as a forecast approach under traditional COS regulation.⁹⁶

Panel Determination

The Panel approves the continuation of a formula or index-based approach for FEI Growth capital.

In Subsection 2.2, the Panel determines that continuation of a multi-year performance or incentive-based framework is desirable. Using a formula or indexed based approach where there are a limited and identifiable number of factors driving costs is consistent with that determination, provided the design and application of the formula produces a reasonable estimate.

⁹⁴ FortisBC Final Argument, pp. 46-47.

⁹⁵ CEC Final Argument, p. 44.

⁹⁶ FortisBC Reply Argument, p. 29.

The Panel agrees with FortisBC that retaining an index-based approach for FEI's Growth capital is supportable. FortisBC demonstrates there is still a strong link between FEI's Growth capital and Gross Customer Additions as evidenced by the 0.95 correlation coefficient. FortisBC acknowledges the CEC's point that there is some variation in the costs caused by each addition, but the evidence establishes a strong link between Gross Customer Additions and Growth capital expenditures. While the CEC points out the variation, it did not directly address FortisBC's evidence establishing this strong correlation. In the Panel's view, this strong link to a key driver makes FEI Growth capital suitable for being managed within a formula.

The Panel approves Gross Customer Additions as the primary growth factor element to be used for the FEI Growth capital formula. As noted above, the evidence establishes a clear connection between the number of new attachments and actual Growth capital expenditures.

The Panel also finds it reasonable that the increasing trend towards multi-family developments makes the use of Gross Customer Additions more reflective of costs compared to the use of service line additions because of the need for multiple meters and larger headers. This is supported by the correlation between expenditures on meters and Gross Customer Additions (0.94) being higher than service line additions (0.88).⁹⁷ This is also consistent with FortisBC's explanation that use of service line additions in the Growth capital formula in the Current PBR Plan was one of the causes of the variance between actual and formula Growth capital.

Further, the Panel is persuaded by FortisBC's argument that it is the addition of customers, not the average number of customers, that drives cost. This is supported by the high correlation of FEI Growth capital with Gross Customer Additions and by the fact that the average number of customers includes customers that move in and out of premises, which typically does not require capital additions.

3.2.3 Setting the Growth Factor for Index-based Formulas

FortisBC proposes to use a forecast growth factor for the Controllable O&M formula and the FEI Growth capital formula. The Panel addresses FortisBC's proposals for FEI and FBC's Controllable O&M and FEI's Growth capital formulas below.

Controllable O&M

In the Current PBR Plans, the growth factor is represented formulaically as: $[1 + ((AC_{t-1} - AC_{t-2}) / AC_{t-2}) * 50\%]$, where $(AC_{t-1} - AC_{t-2}) / AC_{t-2}$ (customer growth) is the average number of customers of one year previous to the average number of customers two years previous.⁹⁸

In the Proposed MRPs, FortisBC proposes to eliminate the following from the growth factor:

1. The reduction to the growth factor by one-half (i.e. the 50 percent multiplier); and
2. The use of lagged actual customer growth.⁹⁹

⁹⁷ Exhibit B-1, p. C-59.

⁹⁸ FEI Current PBR Plan Decision, p. 122; FBC Current PBR Plan Decision, p. 119.

⁹⁹ Exhibit B-1, pp. C-6–C-7.

Represented formulaically, the growth factor is simply AC_t , where AC_t is the forecast of average number of customers in the test (or forecast) year. Thus, the growth factor is a forecast 100 percent growth factor, such that (but for the proposed inflation index), index-based O&M will be varied in a 1:1 relationship with the average number of customers.¹⁰⁰ In FortisBC's view, a 1:1 relationship is characterized by the expectation that the per customer O&M cost increase arising from adding new customers is the same as the average O&M per customer embedded in the Base O&M.¹⁰¹

Eliminating the 50 Percent Multiplier

The BCUC directed a 50 percent reduction to the growth factor in the Current PBR Plan Decisions. The BCUC found that O&M costs only increase when a threshold in growth is reached (i.e. O&M growth-related expenditures increase in a step-wise manner) and that, while costs do increase with growth, they may not do so in a linear manner (e.g. due to economies of scale). The BCUC also noted that FortisBC had submitted in that proceeding that it is not appropriate to reduce customer service-related costs to reflect a reduced number of customers because "the costs for that department do not decline commensurately." As result, the BCUC was not persuaded that a 100 percent multiplier on the growth factor was appropriate and applied its best judgement to reduce the growth factor by 50 percent.¹⁰²

For the Proposed MRPs, FortisBC submits that statistical data, jurisdictional review and the productivity factor all support the discontinuation of the 50 percent multiplier on the growth factor.¹⁰³

FortisBC submits that in the Current PBR Plan Decisions:

The Panel established the 0.5 multiplier to adjust the growth factors for the "assumed" non-linear correlation between growth-related expenses and the proposed growth factors. [Emphasis added] The 50 percent reduction was not based on any particular analysis but rather set based on the best judgement of the Panel at the time, which noted that "*(i)ff Fortis has evidence that a different growth term is more appropriate, it can bring forward that evidence at any time.*" [Emphasis in original]¹⁰⁴

In this Application, FortisBC first rebuts the assumption made in the BCUC's decision on the Current PBR Plans.¹⁰⁵ To demonstrate the linear relationship between O&M and the average number of customers, FortisBC calculated correlation coefficients. FortisBC explains that a correlation coefficient is a measure of the strength of the linear relationship between two variables. FortisBC submits the calculated correlation coefficient of 0.95 and 0.90 for FEI and FBC, respectively, for the period 2014 through 2018 Actuals and 2019 Projected, demonstrate that on aggregate there is a strong linear relationship between the average number of customers and actual spending on formula-driven O&M for both FEI and FBC during the Current PBR Plans.¹⁰⁶

¹⁰⁰ Exhibit B-7, CEC IR 13.1.

¹⁰¹ *Ibid.*, CEC IR 14.5.

¹⁰² FEI Current PBR Plan Decision, pp. 120-122; FBC Current PBR Plan Decision, pp. 117-118.

¹⁰³ FortisBC Final Argument, p. 75.

¹⁰⁴ Exhibit B-1, pp. C-8–C-9.

¹⁰⁵ Exhibit B-7, CEC IR 14.5.

¹⁰⁶ Exhibit B-1, p. C-9; Exhibit B-7, CEC IR 14.3; Exhibit B-10, BCUC IR 17.7.

FortisBC also provided a regression analysis, as shown in Table 8 below, in recognition that a high correlation coefficient number does not necessarily imply a 1:1 relationship between the average number of customers and Actual Formula O&M:¹⁰⁷

Table 8: FEI and FBC 2014-2019 Regression Analysis

	2014	2015	2016	2017	2018	2019P	Correlation	Slope	Intercept
FEI <i>New attachments</i>	13,583	16,213	17,261	20,825	22,439	18,540	0.95	5.870	(52,628)
<i>Actual Growth Capital (\$000)</i>	\$ 24,230	\$ 45,780	\$ 47,500	\$ 59,540	\$ 82,880	\$ 63,330			
FEI <i>Average Number of Customers</i>	959,196	968,766	983,807	997,380	1,016,353	1,024,962	0.95	0.332	(96,883)
<i>Actual Formula O&M (\$000)</i>	\$ 223,970	\$ 225,380	\$ 225,930	\$ 232,500	\$ 238,690	\$ 246,940			
FBC <i>Average Number of Customers</i>	129,525	131,016	132,480	134,246	137,300	138,649	0.90	0.377	2,537
<i>Actual Formula O&M (\$000)</i>	\$ 52,046	\$ 51,880	\$ 51,839	\$ 52,520	\$ 53,839	\$ 55,581			

According to the regression equation, the average cost added for each additional customer was \$332 for FEI and \$377 for FBC.¹⁰⁸ In FortisBC’s view, these amounts are similar in magnitude to its proposed 2019 Base O&M per customer amounts of \$250 for FEI and \$416 for FBC,¹⁰⁹ which are explained further in Subsection 4.1.1. FortisBC submits this shows that O&M cost growth has been tracking with the growth in average customers.¹¹⁰ FortisBC emphasized that the regression analysis has limitations because it uses only six data points but believes it can be used as another input to inform the BCUC’s decision on this matter.¹¹¹

FortisBC also noted that the results of the regression analysis should not be surprising since the economies of scale available to the Utilities should not be expected to change significantly given that the growth experienced over the term of the Current PBR Plans is small compared to the existing customer base.¹¹² FortisBC acknowledges that having fixed costs will lead to economies of scale since the incremental cost of adding one more unit will be less than the average cost.¹¹³ However, it points out that the growth experienced over the term of the Proposed MRPs is unlikely to be great enough to materially improve the economies of scale available. This is the case since existing economies of scale are already reflected in the proposed Base O&M per customer amounts.¹¹⁴

To be responsive, FortisBC completed a high-level analysis breaking down its O&M costs into fixed and variable components based on its judgement. FortisBC states traditional economic theory suggests the classification of costs into fixed versus variable is dependent on the period of time considered. It also states that the number of customers is only a proxy for various types of cost drivers that affect O&M costs and costs are affected by the geographical location of changes in the number of customers. Therefore, FortisBC submits that, “[e]stimating the percentage of fixed costs versus variable costs is a complicated and contentious task and would require a significant amount of simplification, assumptions and judgment.”¹¹⁵ However, for the purpose of the analysis, FortisBC considered “fixed” O&M costs to be those costs that remain constant for a period of time relative to

¹⁰⁷ Exhibit B-5, BCOAPO IR 23.1.

¹⁰⁸ *Ibid.*, BCOAPO IR 23.1.

¹⁰⁹ Exhibit B-10, BCUC IR 17.7.

¹¹⁰ *Ibid.*, BCUC IR 17.7.

¹¹¹ Exhibit B-12, BCUC IR 165.1.1.

¹¹² Exhibit B-10, BCUC IR 17.7.

¹¹³ Exhibit B-12, BCUC IR 165.1.1.

¹¹⁴ Exhibit B-10, BCUC IR 17.7; FortisBC Final Argument, p. 78.

¹¹⁵ Exhibit B-12, BCUC IR 165.5.

the number of customers served and “variable” O&M costs to be costs that vary with the number of customers served.

To acknowledge the subjectivity of interpretation and the estimated nature of the analysis, FortisBC provided a range of the suggested percentage variability of the O&M costs to the number of customers. In the five-year timeframe, FortisBC estimated total O&M costs to be approximately 53 percent to 70 percent variable relative to the number of customers served for FEI and approximately 47 percent to 65 percent variable relative to the number of customers served for FBC.¹¹⁶

FortisBC submits that the above analysis suggests that its O&M costs “are more variable than fixed” relative to the number of customers served over a five-year time frame. However, the process of determining what portions of its costs are fixed and variable is dependent on different considerations. Thus, FortisBC considers the potential use of the analysis in informing the BCUC’s decision on an appropriate growth factor is limited.¹¹⁷

FortisBC emphasizes that the estimated percentage of fixed costs does not justify a growth factor coefficient as any impact of the fixed costs is already reflected in the Base unit costs and the expected industry productivity growth.¹¹⁸ Therefore, it submits that applying a growth factor coefficient acts as an additional productivity factor, double counting the impact of economies of scale on the productivity growth values.¹¹⁹

In a jurisdictional comparison, FortisBC stated that Hydro Quebec Distribution is the only distributor in its jurisdictional review study that applies a multiplier of 0.75 to its growth factor; all other jurisdictions have growth factors that are either embedded in or implicit in their formulas and reflect 100 percent of changes to their growth factors.¹²⁰

Eliminating Lagged Actual Customer Growth

With respect to eliminating the use of a lagged actual customer growth, FortisBC explains that a forecast growth factor is preferable because:

- Costs and revenues are both driven by the actual growth experienced in the year for which rates are being set;
- The BCUC’s decision to use lagged actual customer growth was premised on the concern about forecasting bias; and
- The use of forecast growth factor is consistent with (1) the approach under traditional cost of service ratemaking, (2) the approved approach in other PBR plans, and (3) how FortisBC internally forecasts its costs.¹²¹

¹¹⁶ Exhibit B-12, BCUC IR 165.5.

¹¹⁷ Ibid.

¹¹⁸ Exhibit B-12, BCUC IR 165.5; Economies of scale currently enjoyed by FEI and FBC are already reflected in the proposed Base unit costs because actual costs have been used to set the Base unit costs. Economies of scale are embedded in the expected industry productivity values because the productivity factor acknowledges that productivity growth may come from various sources, including technological improvements and economies of scale (FortisBC Final Argument, p. 79).

¹¹⁹ Exhibit B-12, BUC IR 165.1; FortisBC Final Argument, pp. 79–81.

¹²⁰ Exhibit B-10, BCUC IR 17.6.

¹²¹ Exhibit B-1, p. C-7.

FortisBC submits that using a forecast ensures that the Utilities have the necessary funds to operate the business in the year the funds are required to be spent. FortisBC proposes a mechanism to true-up the Utilities' O&M expenditures for the actual growth factors to adjust for forecast error resulting in an under recovery or over recovery of costs. The adjustment will be determined in each Annual Review and be included as an adjustment to the O&M formula amount.¹²²

Positions of Interveners

MoveUP and BCSEA

MoveUP and BCSEA support the 100 percent growth factor, with true-up, proposed by FortisBC.¹²³

BCOAPO

BCOAPO submits that the Application lacks internal consistency and that the adjustment to the growth factor should be between 30 and 50 percent. In its view, FortisBC claims that the regression analysis demonstrates the 50 percent multiplier to the growth factor is not needed and yet the regression analysis is not good enough to use to forecast the relationship between customers and costs. BCOAPO states:

The fact of the matter is, if the relationship is supported by regression, then the slope is informative, and then the 50% adjustment factor is more than generous. While Fortis may disagree with the use of the slopes in the regression analysis, it is the only empirical evidence of the relationship between costs and customers. Given the strong correlation coefficients, it is our position that one must consider using the slope as the adjustment factor...¹²⁴

CEC

The CEC does not agree with FortisBC's arguments concerning the appropriateness of the growth factor and "in particular the 100% multiplier resulting in a 1:1 inflation of the UCOM per customer."¹²⁵ The CEC submits it is not credible to suggest the environment for O&M expenditures has changed so dramatically in 2019 to warrant the equivalent of a 100 percent increase in the growth factor.¹²⁶ In the CEC's view, Bell's table (Table 9 below) provides strong evidence there is no significant justification for applying a 1:1 relationship of an average cost per customer, given that the average incremental cost per incremental customer for both Utilities varies widely, ranging from \$147 in 2014 to \$958 in 2019 for FEI and from \$(111) in 2014 to \$1,291 in 2019 for FBC.

¹²² Ibid., p. C-8.

¹²³ MoveUP Final Argument, p. 15; BCSEA Final Argument, p. 14.

¹²⁴ BCOAPO Final Argument, pp. 51–53.

¹²⁵ CEC Final Argument, p. 22.

¹²⁶ Ibid., p. 33.

Table 9: Average Incremental cost per Incremental Customer¹²⁷

	2014	2015	2016	2017	2018	2019P
FEI <i>Average Number of Customers</i>	959,196	968,766	983,807	997,380	1,016,353	1,024,962
<i>Actual Formula O&M (\$000)</i>	\$ 223,970	\$ 225,380	\$ 225,930	\$ 232,500	\$ 238,690	\$ 246,940
<i>Incremental Customers</i>		\$ 9,570	\$ 15,041	\$ 13,573	\$ 18,973	\$ 8,609
<i>Incremental O&M</i>		\$ 1,410	\$ 550	\$ 6,570	\$ 6,190	\$ 8,250
<i>Incremental cost per Incremental customer</i>		\$ 147	\$ 37	\$ 484	\$ 326	\$ 958
FBC <i>Average Number of Customers</i>	129,525	131,016	132,480	134,246	137,300	138,649
<i>Actual Formula O&M (\$000)</i>	\$ 52,046	\$ 51,880	\$ 51,839	\$ 52,520	\$ 53,839	\$ 55,581
<i>Incremental Customers</i>		\$ 1,491	\$ 1,463	\$ 1,766	\$ 3,054	\$ 1,349
<i>Incremental O&M</i>		\$ (166)	\$ (41)	\$ 681	\$ 1,319	\$ 1,742
<i>Incremental cost per Incremental customer</i>		\$ (111)	\$ (28)	\$ 386	\$ 432	\$ 1,291

In addition, the CEC takes issue with the concept that “all costs are variable in the long run,” stating that it is not applicable in the context of this proceeding because the term of the Proposed MRPs is too short to support this. The CEC submits that a reasonably large proportion of O&M expenses is likely to be known and consistent over time and could be extracted from base O&M to avoid inflating these costs. The CEC states that, if not treated as a flow-through, these costs should be inflated according to criteria other than customer growth.¹²⁸ However, the CEC does not object to the removal of the lagged approach to actual average number of customers with appropriate true-up.¹²⁹

FortisBC Reply Argument

FortisBC replies that BCOAPO misconstrues the meaning of slope in a regression analysis when it suggests that the slope can represent the multiplier to the growth factor. FortisBC states:¹³⁰

First, as discussed in FortisBC’s Rebuttal Evidence, the application of regression analysis with only six data points is limited. Second, the regression lines provided in response to BCOAPO IR 1.23.1 also include an intercept. Mathematically, the existence of an intercept means that one cannot simply relate the relation of independent and dependent variable to only slope and therefore use the slope as the multiplier. Third, to demonstrate the invalidity of BCOAPO’s argument, the response to BCOAPO 1.23.1 also included the regression analysis of FEI’s growth capital and its growth factor. The slope of FEI’s growth capital regression line is 5.87, but this does not mean that in FEI’s growth capital formula the growth factor should be multiplied by 5.87 (1:5.87).

FortisBC submits that a detailed bottom-up “engineering and operational analysis” would be required to demonstrate what BCOAPO claims can be determined from a regression analysis and this is explained in Q&A 12 of FortisBC’s Rebuttal Evidence to Bell.¹³¹

¹²⁷ Ibid., p. 25-26.

¹²⁸ Ibid., pp. 30–31.

¹²⁹ Ibid., p. 33.

¹³⁰ FortisBC Reply Argument, p. 43.

¹³¹ Ibid., p. 44.

For the reasons stated below, FortisBC refutes the CEC's position that a growth factor multiplier is needed because some costs in the Base O&M may not increase linearly with growth in customers pointing out the following:

- The CEC's argument fails to consider that, while some costs may increase less than the formula drivers, other costs may increase more than what the index formula can provide;¹³²
- The CEC's argument contrasts with the opinion of its expert in the FortisBC 2014-2019 PBR Plan proceeding, in which the CEC's expert stated that the number of customers served is the dominant output variable driving cost in the short and medium-term in the energy distribution business. The CEC expert stated that outputs can be reasonably approximated by growth in the number of customers served and there is no need to have a multi-dimensional output index with elasticity weights;¹³³
- The purpose of a formula is not to find an exact cost driver for every individual cost item, but to find a proxy that represents the cost/price trends at an aggregate level. In the short term, there is no way to know what the exact future relationship is between costs and number of customers; however, in the long run, the evidence shows that there is a strong linear relationship;¹³⁴ and
- Existing economies of scale are reflected in the proposed 2019 Base O&M and economies of scale realized with the addition of new customers is accounted for in the productivity factor.¹³⁵

Panel Determination

The Panel denies FortisBC's request to set the growth factor multiplier at 100 percent. The Panel directs FortisBC to set the growth factor multiplier at 75 percent.

In making this determination, the Panel is setting a formula that it views to be a reasonable proxy for the impact of customer growth on O&M expenditures. As FortisBC points out, the purpose of the growth factor is not to find an exact cost driver for every type of O&M expenditure, but to find a proxy for growth that is representative of the impact of growth on aggregate expenditures.

The Panel agrees with FortisBC that the statistical data shows there is a strong linear relationship between actual average number of customers and actual O&M costs. A calculated correlation coefficient of 0.95 and 0.90 for FEI and FBC, respectively, for the period 2014 through 2018 Actuals and 2019 Projected, demonstrates that this is the case in aggregate.

The calculated correlation coefficients for FEI and FBC indicate a strong correlation and are similar to the correlation coefficient of 0.95 for FEI Growth capital discussed in the next Subsection. In the case of FEI growth capital, the 50 percent multiplier was a significant contributor to a material variance between the Growth capital formula calculation and actual Growth capital expenditures and resulted in the underfunding of FEI Growth capital. However, unlike FEI Growth capital, use of the 50 percent growth factor multiplier for controllable O&M

¹³² Ibid., p. 47.

¹³³ Ibid., p. 48.

¹³⁴ Ibid., pp. 48-49.

¹³⁵ Ibid., p. 49.

used in the Current PBR Plans did not result in underfunding of O&M. Under the Current PBR Plans, FEI and FBC were able to earn a fair return while achieving O&M expenditure savings at the same time.

FortisBC also provides a regression analysis (as shown in Table 8 above), in support of its case for elimination of the 50 percent growth factor multiplier and states that it recognizes a high correlation coefficient number does not necessarily imply a 1:1 relationship between the average number of customers and formula O&M. However, FortisBC emphasizes the regression analysis has its limitations due to limited data points, so the Panel puts little weight on this analysis.

The Panel continues to support the commentary in the BCUC's Decisions on the Current PBR Plans and notes that there is a not a 1:1 relationship between fixed and variable costs. However, using FortisBC's index-based O&M formula would result in forecast O&M (including fixed and variable costs) increasing or decreasing in a 1:1 relationship with the average number of customers. FortisBC explains that a 1:1 relationship is characterized by the expectation that the per customer O&M cost increase arising from adding new customers is the same as the average O&M per customer embedded in the Base O&M. In the Panel's judgement, it is not intuitively reasonable that the O&M cost impact of adding an additional customer is 100 percent.

In determining the appropriate growth factor multiplier, in addition to considering the factors noted above, the Panel is also persuaded by the CEC's argument that an increase from 50 to 100 percent when the Current PBR Plans did not result in underfunding is not warranted. Accordingly, the Panel uses its best judgement to set a 75 percent growth factor multiplier for the Proposed MRPs.

Regarding FortisBC's argument that the growth factor multiplier is duplicative of the productivity factor, in the Panel's view the multiplier is an adjustment to arrive at an index-based proxy to calculate the relationship between costs and number of customers and is unrelated to the purpose of a productivity factor. The Panel's review of the productivity factor is in Subsection 3.2.9.

The Panel approves the use of forecast average number of customers and the related true-up mechanism for calculating the FEI and FBC growth factor. The Panel notes that none of the interveners raised concerns with FortisBC's request to eliminate the use of lagged actual customer growth and agrees with its reasons for an adopting forecast/true-up approach as a preferable methodology.

FEI Growth Capital

As noted above, the Panel approves Gross Customer Additions as the primary input into the growth factor component used in FEI Growth capital formula. In this Subsection, the Panel considers whether other adjustments to the growth factor are necessary, including FortisBC's proposal to eliminate adjustments to the growth factor that were imposed under the Current PBR Plan Decisions.¹³⁶ These two adjustments consisted of:

- an adjustment the growth factor of 50 percent, also referred to as a 50 percent multiplier or a coefficient of 0.5; and
- the use of lagged actual customer growth.

¹³⁶ FEI Current PBR Plan Decision, p. 122; FBC Current PBR Plan Decision, p. 119

FortisBC’s proposed approach eliminates the 50 percent multiplier (resulting in a 100 percent multiplier) and lagged actual customer growth factor used in the Current PBR Plans. FortisBC proposes to true-up its forecast of Gross Customer Additions to actual amounts in each test year for the previous years’ forecasts and explains the true-up will return to or recover from customers any difference between forecast and actual customer growth.¹³⁷

According to FortisBC, the main contributor to FEI’s overall capital expenditure variances during the 2014-2019 period was a result of increases in Growth capital to meet customer demand. FortisBC states that when customer additions were increasing, FEI’s allowed spending did not escalate at the same rate as the capital required to connect new customers.¹³⁸ It also states that Table 10 illustrates the total variance in FEI’s Growth capital expenditures during the 2014-2019 period.

Table 10: FEI Growth Capital Variance from 2014 to 2019 (\$ millions)¹³⁹

Year	Actual	Formula	Variance
2014	24.231	21.478	(2.753)
2015	45.776	28.480	(17.296)
2016	47.500	33.262	(14.238)
2017	59.542	33.477	(26.066)
2018	82.884	37.485	(45.399)
2019P	63.328	40.143	(23.185)
Total	323.262	194.325	(128.937)

FortisBC explains the \$128.9 million variance is a result of higher than expected growth (\$108.8 million), the growth factor for service line additions (\$19.0 million), and PBR formula pressures resulting from an increase in the productivity factor (\$1.1 million). According to FortisBC, the biggest overall driver of these variances was the 50 percent multiplier and the use of lagged actual customer growth.¹⁴⁰

FortisBC provides Table 11 to highlight the result if the proposed approach for FEI Growth Capital had been applied during FEI’s Current PBR Plan term:¹⁴¹

¹³⁷ FortisBC Final Argument, pp. 72-73.

¹³⁸ Ibid., p. 73.

¹³⁹ Exhibit B-1, Table B2-4, p. B-34

¹⁴⁰ Exhibit B-10, BCUC IRs 9.3, 10.4

¹⁴¹ Exhibit B-12, BCUC IR 158.3.

Table 11: FEI Growth Capital Variance Using Proposed Approach (\$ millions)¹⁴²

Year	Actual	Formula	Variance
2014	24.231	27.268	3.037
2015	45.776	43.414	(2.362)
2016	47.500	46.945	(0.555)
2017	59.542	57.442	(2.100)
2018	82.884	62.947	(19.937)
2019	63.328	53.316	(10.013)
Total	323.262	291.332	(31.930)

This table illustrates the cumulative variance between actual and formula capital would have been \$31.9 million, compared to the actual variance of \$129 million.¹⁴³

The following table (Table 12) which it states shows that funding for FEI's Growth capital using actual additions would have decreased the funding variance by approximately \$76 million to the end of 2018.

Table 12: FEI's Approved Growth Capital vs. Growth Capital Using Actual Additions¹⁴⁴

Growth Capital \$000	2014	2015	2016	2017	2018	Total
Approved Growth Capital using lagging growth	21,809	28,480	33,263	33,477	37,485	154,514
Growth Capital recalculated using Actual Additions	30,508	43,042	42,997	55,457	58,414	230,418
Difference	(8,700)	(14,563)	(9,734)	(21,979)	(20,929)	(75,905)

FortisBC also provided a scenario analysis to show what the impact would have been on the variance for FEI Growth capital if various components of the MRP proposal had been applied to the Current PBR Plan. In the first scenario, the growth factor still uses a 50 percent multiplier, using actual service line additions instead of lagged service line additions. In this scenario, the variance drops by \$31 million from \$128.9 million to approximately \$97.7 million.¹⁴⁵ A further scenario removing the 50 percent multiplier results in the variance falling by another \$57 million down to \$40.1 million:¹⁴⁶

FortisBC submits that use of a:

- forecast growth factor rather than a lagged actuals approach with the elimination of the 50 percent multiplier is a more accurate and theoretically consistent approach;
- lagging growth factor with a 50 percent multiplier will lead to variances from actual costs in a year, as well as underfunding, unless the utilities can realize a 50 percent reduction in per customer costs for each new incremental growth factor unit;
- lagging growth factor with 50 percent multiplier caused a fundamental misalignment between the formula and the actual driver of expenditures as demonstrated by the materiality of the variance;

¹⁴² Exhibit B-12, BCUC IR 158.3.

¹⁴³ Ibid.

¹⁴⁴ Exhibit B-1, Table C1-2 (as updated by Exhibit B-1-3.), Table C1-2, p. C-8.

¹⁴⁵ Exhibit B-10, BCUC IR 8.1, Table 1.

¹⁴⁶ Ibid., Table 3.

- forecast of Gross Customer Additions for the growth factor will more closely match the funds required to connect customers and aligns with the fact that FortisBC's costs and revenues are driven by the actual growth experiences in the year for which the rates are being set; and
- true-up adjustment will eliminate the impact of forecast error.¹⁴⁷

Further, FortisBC argues that a 100 percent growth factor is supported by the statistical data showing a strong linear relationship between expenditures and the growth factors as demonstrated by the correlation coefficient between FEI's number of new attachments and actual formula-related Growth capital costs being close to 0.95.¹⁴⁸

According to FortisBC, the use of a multiplier on a growth factor duplicates the role of the productivity factor and any economies of scale achieved by the utility are already included in the productivity factor.¹⁴⁹ FortisBC also points to a 100 percent growth factor being the approach taken in all other jurisdictions except one.¹⁵⁰

Positions of Interveners

MoveUP

MoveUP notes that the forecasting of incremental capital appears to have been a weak point in the Current PBR Plans and states this appears to have been a result of a combination of a lagging customer growth measure and the application of a 50 percent multiplier.¹⁵¹ MoveUP submits the proposed MRP approach to dealing with capital is an improvement on the Current PBR Plan mechanism.¹⁵²

BCSEA

BCSEA supports the 100 percent growth factor or multiplier, with true-up to actuals, for the reasons as proposed by FortisBC¹⁵³ and agrees that Gross Customer Additions are a more accurate measure of the driver of Growth capital than service line additions.¹⁵⁴

BCOAPO

Regarding FEI's Growth capital proposal, BCOAPO notes that the proposal to remove the 50 percent multiplier and the lagging approach are incremental to the introduction of the zero percent productivity factor and submits this serves to increase the Utilities' funding above and beyond the increases noted. BCOAPO also disagrees with FortisBC's argument that the use of a multiplier on the growth factor will duplicate the role of a productivity factor, stating that given the productivity factor is zero, BCOAPO cannot see how there is any duplication.¹⁵⁵

¹⁴⁷ FortisBC Final Argument, pp. 72-75.

¹⁴⁸ Ibid., p. 77.

¹⁴⁹ Ibid., p. 80.

¹⁵⁰ Ibid., p. 81.

¹⁵¹ MoveUP Final Argument, p. 17.

¹⁵² MoveUP Final Argument, p. 19.

¹⁵³ BCSEA Final Argument, p. 14.

¹⁵⁴ Ibid., p. 21.

¹⁵⁵ BCOAPO Final Argument, p. 52.

BCOAPO notes that FortisBC uses correlation coefficients as part of its argument to remove the 50 percent multiplier. BCOAPO states that while FortisBC claims the regression demonstrates the 50 percent multiplier to the growth factor is not needed, it also claims the regression is not good enough to use to forecast the relationship between customers and costs for O&M. BCOAPO further states that the result of the regression analysis supports a 30 percent multiplier growth factor.¹⁵⁶

FEI Reply Argument

FortisBC states its position that the growth factor will duplicate the role of a productivity factor is supported by other regulators and experts in the field. FortisBC states that economies of scale are one of the factors that impact industry productivity values and one of the functions of the productivity factor is to account for economies of scale. FortisBC states that, as shown in the studies produced in other jurisdictions, productivity values can be negative, zero, or positive indicating that FortisBC's value of zero means that economies of scale are being offset by other factors that are driving down productivity. FortisBC concludes that if it is the intent of the growth factor to account for economies of scale then it is a fact that it would double count the productivity factor.¹⁵⁷

In response to BCOAPO's comments on regression analysis, FortisBC submits BCOAPO misconstrues the meaning of slope in a regression analysis when it suggests that the slope can represent the multiplier to the growth factor. FortisBC points also out that the existence of an intercept in its regression analysis means that one cannot simply relate the relation of independent and dependent variable to only slope and therefore use slope as the multiplier.¹⁵⁸

Panel Determination

The Panel approves FortisBC's proposal to increase the growth factor multiplier from 50 percent to 100 percent for FEI Growth capital. FortisBC's evidence clearly establishes that during the Current PBR Plan's term a significant portion of the variance between FEI's actual and formula Growth capital was attributable to the increase in customer attachments. In the Panel's view, continuation of a 50 percent multiplier could continue to lead to variances between formula and actual Growth capital expenditures and underfunding, all other things being equal. The Panel finds that the strong linear relationship between customer additions and Growth capital expenditures reasonably supports using an approximate 1 to 1 ratio.

BCOAPO has objected to the removal of the 50 percent multiplier because FortisBC also proposes a zero percent productivity factor. In the Panel's view this as an issue distinct from elimination of the 50 percent growth factor multiplier. The Panel reviews FortisBC's proposal of an implied zero percent productivity factor in Subsection 3.2.6.

The Panel approves FortisBC's proposal to eliminate the lagged actual customer approach for FEI Growth capital used in FEI's Current PBR Plan. The Panel also approves FortisBC's proposal to use forecast Gross Customer Additions with true-up to actual amounts in each test year for the previous year's forecasts.

¹⁵⁶ BCOAPO Final Argument, p. 53.

¹⁵⁷ FortisBC Reply Argument, pp. 40-41.

¹⁵⁸ Ibid., p. 43.

FortisBC's evidence clearly establishes that the use of lagged customer growth during the Current PBR Plan term caused significant variances between FEI's actual and formula Growth capital and the continuation of this approach could lead to variances from actual Growth capital expenditures in a period of high growth. The Panel agrees with FortisBC and interveners that using forecast Gross Customer Additions with true-up in the Growth capital formula will more closely match the expenditures needed to fund customer additions. This approach is also consistent with the evidence that FEI's Growth capital expenditures align with actual customer growth. In addition, the annual true-up to actuals will eliminate forecasting risk.

3.2.4 Setting the MRP Term

An important issue is the optimum length of the MRP term given the current environment and evolving government policy on decarbonisation and electrification and their potential impact on FortisBC's business. A key question arises as to whether a five-year term is too long. Conversely, there are implications to moving forward with a shorter-term that need to be considered. Therefore, the Panel must weigh the consequences related to both alternatives in determining the optimal term for the Proposed MRP.

FortisBC proposes a five-year term for the MRPs covering 2020 through 2024. It states that in North America, a five-year term is the most commonly adopted term and addresses the key objective of regulatory efficiency as this minimizes the frequency of comprehensive revenue RRAs. In support of its proposal, FortisBC cites the following benefits of adopting a five-year time frame for the term:

- It creates regulatory cost savings. As discussed in Subsection 2.1.4, FEI reports annual costs of \$415,000 under the Current PBR Plan as compared to \$780,000 per year under its most recent RRA. Similarly, FBC reports an annual cost of \$360,000 as compared to \$661,000 under its most recent RRA;
- It promotes a longer-term focus for the Utilities and frees up resources. In support of this FortisBC cites examples from the Current PBR Plans where it was able to use internal resources to conduct rate design proceedings and to focus on revenue-generating and load building opportunities in addition to allowing for long-term contracting strategies; and
- It provides sufficient time for incentives to work. Having a five-year plan allows the utility time to plan and undertake efficiencies while allowing ratepayers and the utility to realize the benefits within the test period.

As further support FortisBC cites a 2017 study from Dr. Lowry that confirms these benefits and also found that more frequent rate cases can be statistically correlated with higher costs and poorer utility productivity.¹⁵⁹

Positions of Interveners

BCSEA

BCSEA is in support of a five-year term as proposed by FortisBC noting that it is the most common term for multi-year ratemaking plans in North America and provides adequate time for the planning and implementation

¹⁵⁹ Exhibit B-1, p. C-5; FortisBC Final Argument, pp. 10–11, 38–40.

of efficiencies. In BCSEA's view a shorter term would tend to defeat the purpose of achieving regulatory efficiencies while a longer-term would run the risk of becoming out of date.¹⁶⁰

MoveUP

MoveUP makes no specific submission with respect to the term of the MRPs. It believes that the FortisBC Application is too timid with respect to equipping the Utilities and their customers to adapt to the impending energy sector transformation. In its view this will become obvious before the end of the proposed five-year term and therefore, the MRPs should not be rigidly locked in for the full five years as "the context and assumptions upon which they were designed will become unreliable."¹⁶¹ MoveUP states that the Utilities and the regulator need to be prepared to accelerate strategies through what it believes to be a fundamental change that is coming upon them.¹⁶²

CEC

The CEC recommends the BCUC reject the MRPs including the proposed five-year term. The CEC states that relying on what is done in other jurisdictions is not necessarily a strong rationale and it considers a five-year term to be excessive and inappropriate. The fact that there are reduced regulatory costs over the Current PBR Plans' term as compared to the most recent RRA does not justify the increased ROE earned by the Utilities or the reduction in regulatory oversight. The CEC submits that "diminishing the nature and frequency of oversight serves to diminish the value of regulation overall."¹⁶³ Further, it does not accept the argument that reducing the frequency of RRAs allows utility management to focus on long-term objectives and innovations benefiting customers.

The CEC argues that being on a five-year PBR will result in ratepayer loss of:

- Openness and transparency for five years as opposed to two-year COS regulation.
- A degree of prudence review of costs and services; and
- More frequent rebasing benefits.

Further, by adopting the Proposed MRPs ratepayers will be exposed to greater potential for miscalibration of the MRP, an increase in forecasting uncertainty and error, an increased risk to principles of fair return on capital and recovery of prudent costs as well as increased risk that any real benefits will be exceeded by costs of the MRP Plan.¹⁶⁴

ICG

ICG urges the BCUC to reject the Proposed MRP for FBC and direct a further proceeding to set 2020 rates on a COS basis. If the BCUC moves forward with an incentive-based program, ICG submits the Current PBR Plan should be extended for one or two years with no changes.¹⁶⁵

¹⁶⁰ BCSEA Final Argument, p. 12.

¹⁶¹ MoveUP Final Argument, p. 2.

¹⁶² *Ibid.*, pp. 2–3.

¹⁶³ CEC Final Argument, p. 52.

¹⁶⁴ *Ibid.*, pp. 51–54.

¹⁶⁵ ICG Final Argument, p. 26.

Neither BCOAPO nor BCMEU took a specific position with respect to the term of the Proposed MRPs.

FortisBC Reply Argument

FortisBC's Reply Argument focuses primarily on rebutting the CEC's argument noting that it is reflective of its general opposition to incentive ratemaking rather than the term of the MRPs. FortisBC argues the fact that other jurisdictions have a five-year term is persuasive as it reflects the fact that "a key purpose of MRPs is to create opportunities to find efficiencies and a sufficiently long term is required for those opportunities to be realized."¹⁶⁶

FortisBC's states its position is that the success of the Current PBR Plans and empirical studies support the view that rate case frequency enables management to focus on long-term objectives and innovations benefiting customers. Further, the CEC has not shown any flaw in FortisBC's evidence or filed any evidence that contradicts this view. As for reduced oversight, FortisBC argues that the Annual Reviews provide an opportunity for oversight over the term of the Proposed MRPs. In addition, FortisBC argues that MRPs and COS are all proper regulation but MRPs are superior to COS at emulating a competitive market and are more efficient from a regulatory perspective.¹⁶⁷

Panel Determination

The Panel finds that the benefits of moving forward with a five-year MRP outweigh the concerns raised. **Therefore, the Panel approves a term of five years for FortisBC's MRPs covering the period 2020 through 2024.**

The Panel accepts that moving forward with an additional five-year term entails some level of risk. However, this must be balanced against the fact that an adequate amount of time is required to allow for planning and implementation and, once the plans are implemented, for the benefits to accrue. Based on evidence drawn from a cross sectional review of other jurisdictions this period is approximately five years.

The CEC has raised concern that there is a great opportunity for miscalibration of an MRP plan thereby increasing risk. The Panel accepts that in undertaking a longer-term MRP, there is potential for error but points out that in the event of a significant miscalibration there are off-ramps and other safeguards which can be relied upon to protect ratepayers. Moreover, the review of this Application provides the Panel with the opportunity to review the mechanisms holistically and to ensure these risks are mitigated or at least minimized while allowing the Utilities' the opportunity to earn a fair return.

The CEC has also raised concern with respect to the openness and transparency available under an MRP plan. While not affording the same level of transparency and openness as an RRA proceeding, the Annual Review process does offer the opportunity for ongoing dialogue among the parties with regards to results and issues.

The Panel also acknowledges the concerns raised by MoveUP with respect to potential changes within the energy sector leading to fundamental change. The Panel has similar concerns but is not persuaded these

¹⁶⁶ FortisBC Reply Argument, p. 27.

¹⁶⁷ Ibid., pp. 27–29.

concerns should impede its determination of an appropriate term for the MRPs. If there is a major change in circumstances that points to a need to suspend or otherwise modify the Proposed MRPs, the Panel believes any such changes can be dealt with if and when they arise.

3.2.5 Setting the I-Factor

An inflation or I-factor recognizes the annual impact of inflation on costs and is an important component of an indexed or performance-based framework. FortisBC states that although the specific pressures or weightings of the various inflationary influences may differ from the economy in general, the use of an inflation or I-factor in a multi-year performance-based framework recognizes costs are subject to the general inflationary pressures that are occurring in the economy. It proposes to continue to use the weighted composite I-Factor that was utilized in the Current PBR Plans. This consists of labour which is indexed to Statistics Canada's AWE:BC and non-labour which is indexed to the All-Items index for CPI:BC. This, as proposed, will use the same composite factor weighting of 55 percent for labour and 45 percent for non-labour expenses. Therefore, the proposed I-Factor remains unchanged and is calculated as follows:

$$I = 55\% \times AWE:BC_{t-1} + 45\% \times CPI:BC_{t-1}$$

Where:

- I = Inflation Factor
- AWE:BC = labour index
- CPI:BC = non - labour index
- t - 1 = most recent July to June value¹⁶⁸

FortisBC states there is no need to adjust the inflation factor weightings for labour and non-labour used in the Current PBR Plans as they continue to be appropriate. Over the past five years FEI's actual O&M expenditures are 51 percent labour and 49 percent non-labour while FBC's have been 60 percent labour and 40 percent non-labour. On an aggregate basis this provides an average 53 percent labour and 47 percent non-labour, an amount that is close to the proposed 55 to 45 ratio.¹⁶⁹ In addition, FortisBC states that the share of labour cost items will increase due to a more accurate reflection of intercompany cross charges. It explains:

In 2018, FortisBC implemented direct intercompany cross charging (replacing the need to invoice between the utilities), with the result that intercompany labour is now included in labour expense instead of non-labour as was previously the case. This change, which is a more accurate reflection of total labour costs to each utility, will lead to an increase in the share of labour of approximately \$7 million for the Utilities on a combined basis. Using 2018 O&M Expense as a proxy, an increase of \$7 million in labour expense would result in an aggregate labour component of 56 percent for the year $[(\$841.406 + 7.000)/\$1.594.916 = 56\%]$.¹⁷⁰

Given these expected increases, FortisBC considers the current 55 percent labour and 45 percent non-labour weighting on a composite basis to be reasonable and, if a change were made, it would be appropriate to increase the labour portion.

¹⁶⁸ Exhibit B-1, p. C-6.

¹⁶⁹ Exhibit B-12, BCUC IR 162.5.

¹⁷⁰ Ibid.

FortisBC states that it will update both the AWE:BC and CPI:BC rates in this formula as part of the Annual Review process for the years 2020 to 2024.¹⁷¹

Positions of Interveners

CEC

The CEC accepts that actual inflation measures are a reasonable benchmark reflecting price/cost pressures across the economy but notes there is no true-up for inflation. It submits that failing to recognize true inflation has the potential to be detrimental to ratepayer interest and provide a cushion to the Utilities against which to underspend. This could benefit the Utility shareholder, as any forecast would be embedded in the base and compounded throughout the term.¹⁷²

With respect to the I-factor and the indexes proposed, the CEC agrees there is insufficient evidence that there are superior options and has no objections to those proposed. However, the CEC disagrees with FortisBC's proposed weighting of 55 percent for labour and 45 percent for non-labour continues to represent the Utilities' actual share of these costs. The CEC states that the percentages do not reflect historical percentages and the combined weighting provides a favourable variance for the utility. Referring to CEC IR 10.5, the CEC points out that FEI labour has not accounted for 55 percent going back to 2009 and was frequently lower with the average over the past 10 years being 48.7 percent and over the past five years, 51 percent (for FBC the labour portion is significantly higher).

The CEC proposes using an average of the previous decade or PBR period rather than a single year as a means of determining the baseline for the Proposed MRPs. If this were done it would result in a combined average of 52.8 percent labour which is 2.2 percent more than the amount being proposed by the Utilities. In the alternative, the BCUC may wish to consider changing the ratio each year of the MRP term. Concerning FortisBC's reliance on the combined weighting within the formula, the CEC states that this results in an overall cost increase of \$113,000 collectively to ratepayers and submits that the formulas should be based on the best available information.¹⁷³

BCMEU, BCOAPO and ICG

BCMEU, BCOAPO and ICG made no submissions that specifically dealt with the I-factor. BCSEA states it does not oppose the approach taken by FortisBC with respect to the calculation and weighting of labour and non-labour for the I-factor.¹⁷⁴

FortisBC Reply Argument

Regarding the CEC's concern with there being no true-up of inflation FortisBC responds that "the inflation indices already reflect actual inflation so there is nothing to true-up."¹⁷⁵

¹⁷¹ Exhibit B-1, p. C-6; FortisBC Final Argument, pp. 47–49.

¹⁷² CEC Final Argument, p. 36.

¹⁷³ *Ibid.*, pp. 37–40.

¹⁷⁴ BCSEA Final Argument, p. 13.

¹⁷⁵ FortisBC Reply Argument, p. 32.

FortisBC disagrees with the CEC's contention that an average of the previous PBR is a superior methodology for determining the baseline. It states that 2018 labour/non-labour weightings reflect the most recent year where there was a steady increase in headcount for reasons described in the 2019 Annual Review. FortisBC expects these labour requirements to continue into the next year and, considering the years before 2018, would result in the percentage of labour over the Proposed MRP terms being underrepresented. It further points out that a reliance on historical years would be problematic because it does not reflect the improvements to intercompany charging made in 2018 as a result of the SAP Integration Project, a major efficiency initiative that was undertaken later in the PBR term. FortisBC states that this was covered in detail at the Annual Review for 2019 rates and as explained, involved the adoption of a common platform which enabled the alignment and streamlining of processes like intercompany charges.

Concerning the use of a combined ratio of labour to non-labour for both Utilities, Fortis BC states it is only necessary for the inflation factor to be reasonable, not exact. It states that the difference between a combined approach rather than specific rates to each utility is relatively small and made even smaller when the 50/50 ESM is considered. Due to this immateriality, FortisBC recommends maintaining the existing combined inflation factor for the term of the Proposed MRPs.¹⁷⁶

Panel Determination

There is no disagreement among the parties that the calculation of inflation is an important component and needs to be considered in the context of the Proposed MRPs. The Panel also notes that there is no disagreement among the parties with respect to the reference indexes being proposed (Statistics Canada CPI:BC and AWE:BC) which were relied upon in the Current PBR Plans. Therefore, the issues the Panel needs to address are the following:

- Whether reliance on the previous year versus an average of the 2014 to 2018 years (or last 10 years) provides a more accurate labour to non-labour baseline for the Proposed MRPs;
- Whether the labour to non-labour ratio should be set for the entire MRP term or reviewed and reset each year; and
- Whether the labour to non-labour ratio should be combined for the two Utilities or whether the ratio should be utility specific.

In determining a labour to non-labour baseline, the Panel agrees with FortisBC and is persuaded that relying on more recent information rather than taking an average of recent time periods is likely to provide more accurate results. FortisBC presents evidence that its headcount increased later in the Current PBR Plans' term, and this is expected to continue. Moreover, FortisBC has outlined that recent changes in the intercompany charging due to the implementation of the SAP project will have an impact. Therefore, in consideration of these factors, the Panel finds that the combination of these influences may result in differences in labour to non-labour ratios that could not be adequately captured by taking a five or ten-year average.

This leads to the question as to whether the labour to non-labour ratio should be set for the entire MRP period or whether it should be set annually as proposed by the CEC. The Panel notes that while similar on a year-to-

¹⁷⁶ FortisBC Reply Argument, pp. 30–32.

year basis, the ratio of labour to non-labour costs does vary. FortisBC also notes these changes often occur because of the Utilities' changing requirements. Therefore, to attain a higher degree of accuracy, the Panel finds that it is more appropriate to set the labour to non-labour ratio annually and to base it on the most recently completed year. This does introduce lag but relying on the previous year's ratio is likely to be more reliable and accurate than a five-year forecast.

The final question is whether the utilities should have combined or individual labour to non-labour ratios. The Panel notes there is a significant difference in the labour to non-labour ratios for FEI and FBC (cumulatively FBC averages 60 percent labour while FEI averages 51 percent).¹⁷⁷ FortisBC states that the difference is relatively small financially. However, since the ratio will be changed annually there is no real advantage to using the same ratio for both FEI and FBC. Therefore, the Panel finds that going forward it is more appropriate for FEI and FBC labour to non-labour ratios to be set separately for each utility.

Based on these findings the Panel determines that the I-factor formula will be as follows:

$$I = X \times AWE:BC_{t-1} + Y \times CPI:BC_{t-1}$$

Where:

- **I = Inflation Factor**
- **AWE:BC = labour index**
- **CPI:BC = non - labour index**
- **t - 1 = most recent July to June value**
- **X = the previous year's labour ratio; and**
- **Y = the previous year's non-labour ratio.**

FortisBC is directed to provide the results of the completed formula based on 2019 results for FEI and FBC to set the base for 2020 as part of its compliance filing. Thereafter, the formula will be informed by the previous year's results and reviewed as part of the Annual Review process.

3.2.6 Setting the X-Factor

Here the issue the Panel needs to determine is the appropriate productivity or X-Factor for the Proposed MRP. As explained by FortisBC, 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 inflation of the utility."¹⁷⁸

In the Current PBR the X-Factor is 1.03 percent for FBC and 1.10 percent for FEI. This X-Factor was made up of two components; a Total Factor Productivity (TFP) Measure of 0.93 percent and a Stretch Factor of 0.1 percent for FBC and a TFP of 0.90 percent and Stretch Factor of 0.2 percent for FEI. In those Decisions, the BCUC examined the underlying assumptions applied by two opposing expert witnesses and determined the more

¹⁷⁷ Exhibit B10, BCUC IR 162.5.

¹⁷⁸ Ibid., BCUC IR 13.2.

appropriate of the two TFP studies to arrive at applicable TFP measures and considered the evidence before it to arrive at the Stretch Factors to be applied.¹⁷⁹

In the Proposed MRPs, FortisBC proposes to apply a zero percent productivity or X-Factor for both FEI and FBC stating that it is reasonable and the Utilities will be challenged “to find efficiencies to contain its costs within indexed-based amounts.”¹⁸⁰ The issue the Panel must decide is whether it is appropriate to grant FortisBC’s proposed zero percent X-Factor or whether it is more appropriate to have a productivity factor, a stretch factor or both, thereby applying a positive X-Factor for the MRP. None of the parties performed a TFP Study specific to this proceeding although the results of recent TFP studies from other jurisdictions are in evidence. The lack of a TFP study therefore requires the Panel to rely more heavily on its judgement in determining the appropriate X-Factor.

In proposing a zero percent productivity factor, FortisBC places reliance in this proceeding on TFP studies and regulatory decisions in other jurisdictions. It argues that TFP growth results calculated by expert reports filed in other jurisdictions and regulatory decisions that followed them demonstrate there is a declining trend in industry growth values. This trend is expected to continue and is consistent with its assessment that the inflation factor “may be insufficient to compensate the Utilities’ higher input cost growth required to prepare for the rapid industry transition in the upcoming term of the Proposed MRP.”¹⁸¹ In addition, FortisBC argues that X-Factor determinations in other jurisdictions provide support for a zero percent productivity factor as the rationale for these positive X-Factors does not apply to FEI or FBC.

FortisBC points out that as documented in the Annual Review process from the Current PBR Plans, FEI and FBC have been under a PBR framework for many years and have found it increasingly difficult to find efficiencies. Consequently, there is no ‘low hanging fruit’ that would justify a stretch factor. Moreover, FortisBC argues that FEI and FBC are efficient relative to their peers as indicated by the results of the Concentric Advisors (Concentric) benchmarking study. FortisBC submits this indicates the lack of justification for a stretch factor requiring the Utilities to do “more with the same.”¹⁸²

TFP Study Results

In evidence, FortisBC sites examples of studies performed in other Canadian jurisdictions where productivity growth numbers are trending downward. An expert (Dr. Makhholm) indicates a downward trend in TFP over the last 10 to 15 years, with only five of the last 15 years showing positive growth and none of these occurring within the last six years.¹⁸³ Dr. Lowry, retained by the Ontario Energy Board (OEB) to comment on the Makhholm study had similar results and indicated a negative productivity growth value of -0.23 percent. In his review of the natural gas industry there was negative growth in 11 out of the 15 years ending in 2016.¹⁸⁴ FortisBC also notes that the Alberta Utilities Commission (AUC) commented on this downward trajectory in its 2016 PBR Decision

¹⁷⁹ FEI Current PBR Plan Decision, pp. 81, 86, 91; FBC Current PBR Plan Decision, pp. 78, 83, 88.

¹⁸⁰ FortisBC Final Argument, p. 49.

¹⁸¹ *Ibid.*

¹⁸² *Ibid.*

¹⁸³ Exhibit B-1-1, Appendix C4-2, p. 25.

¹⁸⁴ *Ibid.*, Appendix C2-4, pp. 25–26.

where it stated, “the issue before the Commission is not whether the TFP growth component of the current X factor needs to be lowered for the next generation PBR, but rather, the extent to which it needs to be lowered.”¹⁸⁵ FortisBC asserts that the industry-wide downward productivity growth trend was further confirmed by the Regie de l’Energie’s (Regie) recent final decision for Hydro Quebec Distribution.¹⁸⁶

FortisBC provides evidence that this declining trend in productivity growth values is universally acknowledged to be expected to continue.¹⁸⁷ As noted, Dr. Makholm’s study of 65 utilities for a Union Gas and Enbridge Gas Distribution proceeding indicates this.

Dr. Makholm states that he “cannot conclude that there is a prospect for any reliable positive TFP growth” in the next ten years for the group he studied. Evidence from the Edison Electric Institute (EEI)¹⁸⁸ further supports this view as FortisBC explains that the “North American utility industry is in the midst of an unprecedented technological and climate policy-driven transition that prompted utilities to invest record amounts in a broad spectrum of activities/projects.”¹⁸⁹ This evidence, based on a survey of US utilities, shows that capital funding has increased significantly over the period that coincides with declining productivity growth values computed by experts.

The EEI survey describes the primary drivers of this declining productivity growth as the expansion of the transmission network and construction of new lines. Distribution investment is described as driven by the continuous need to replace end-of-life assets, serve new load and the improvement of system resiliency while preserving reliability. FortisBC states that FBC and FEI are in a similar transition and expect non-labour costs to increase at or higher than CPI-based inflation over the MRP. FortisBC acknowledges that while this investment cycle will moderate at some point, there is no evidence it will happen during the MRP term.¹⁹⁰

FortisBC argues that analysis of TFP results and X-Factors applied in other jurisdictions supports its rationale for the proposed zero percent X-Factor. Table 13 summarizes recent productivity studies in Canada and the approved X-Factors. In all these jurisdictions the approved X-Factor was consistent at +0.3 percent with productivity growth estimates ranging from -1.11 percent to +0.78 percent.

¹⁸⁵ FortisBC Final Argument, p. 56.

¹⁸⁶ *Ibid.*, p. 57.

¹⁸⁷ *Ibid.*, pp. 57–60.

¹⁸⁸ Edison Electric Institute; “2018 Financial Review, Annual Report of the US Investor-Owned Electric Utility Industry”, p. 14.

¹⁸⁹ FortisBC Final Argument, p. 58.

¹⁹⁰ *Ibid.*, p. 59.

Table 13: Summary of Approved X-Factors and Results of Recent Canadian Productivity Studies¹⁹¹

Proceeding	Expert	Evidence date	Retained by	Productivity results	X-Factor proposed	X-Factor approved	Description	Source reference
Union/EDG Amalco PBR	Dr.Lowry / PEG	May 2018	OEB staff	TFP= -0.23%	0.3%	0.3%	58 T&D NG utilities in U.S. / 1999-2016	IRM Framework for the Proposed Merger of Enbridge and Union Gas, Revised May 4, 2018, Mark Newton Lowry
	Dr.Makholm/ NERA	Nov 2017	Utilities	TFP= 0.54% Adjusted= 0.35%	0.00%		65 utilities, Combination of NG & Elec / 1973-2016	EB-2017-0307, Expert Report and Direct Testimony Prepared by Jeff D. Makholm, PhD
Not Applicable	Dr.Lowry et al. / PEG	Jul 2017	Berkeley Lab/ DOE	TFP range: 0.22% to 0.45%	N/A	N/A	86 Elec and combination of NG& Elec utilities	State Performance-Based Regulation Using Multiyear Rate Plans for U.S. Electric Utilities, July 2017, Lowry, Makos, Deason, and Schartz
Alberta 2 nd Generation PBR	Dr.Meitzen / Christensen	March 2016	EPCOR	TFP=-1.11 %	-1.11%	0.3%	69-72 utilities, Updated NERA TFP, Avg. of 2000-2014 & 2005-2014	Determination of the Second-Generation X Factor for the UAC Price Cap Plan for Alberta Electric Distribution Companies, March 21, 2016, Mark E. Meitzen, PhD
	Drs. Brown & Carpenter / Brattle	May 2016	Utilities	TFP= -0.79%	-0.79%		Updated NERA TFP, 67 utilities, 2000-2014	Proceeding ID No. 20414, Written Reply Evidence of Brown, Carpenter, May 2016; TFP Calculation Live Spreadsheet
	Dr.Lowry / PEG	Jun 2016	CCA	TFP= 0.43% & 0.78%	0.63% & 0.98%		88 & 21 utilities, 1997-2014	PEG Reply Evidence, Revised June 22, 2016, Lowry, Hovde
Hydro Quebec Dist (HQD)	Dr.Lowry / PEG	Jan 2018	AQCIE-CIFQ	TFP range: 0.22% to 0.45%	0.3%	0.3%	Based on Berkeley Lab's study and expert's judgement	MRI Design for Hydro-Quebec Distribution, Errata January 11, 2018, Lowry, Makos
	Coyne / CEA	Jan 2018	HQD	-0.75%	-0.5%		The estimate was based on review of TFP results in other jurisdictions, not a standalone TFP study	Performance Based Regulation: Recommended X Factor, Hydro-Quebec Distribution, January 5, 2018, Concentric Energy Advisors

As outlined above, the OEB in the Union/EDG Amalco PBR agreed to a zero percent productivity factor but added a +0.3 percent stretch factor. The OEB accepted the applicant’s proposal for zero percent noting that both the applicant and OEB’s own expert witnesses agreed on this amount. FortisBC states that OEB also found that the amalgamation would provide additional opportunities for efficiencies and a 0.3 percent stretch factor would be appropriate during the amalgamation period. The OEB stated the following in making its decision:

A key objective of the OEB’s incentive regulation is to drive improvements in cost efficiency. This would have been an expectation regardless of the amalgamation. The amalgamation provides additional opportunities to generate cost savings, and the applicants have proposed a number of initiatives for this purpose. The stretch factor provides incentive to find further efficiency improvements beyond those proposed.

FortisBC states that this stretch factor was based on an amalgamation of the two companies taking advantage of cost savings related to the amalgamation and its interpretation of this statement results in it having no application to the present circumstances as cost-sharing opportunities between FEI and FBC have stabilized.¹⁹² The AUC also set an X-Factor of +0.3 percent based on expertise and judgement. The AUC stated that the +0.3 percent X-Factor fell within a reasonable range of values (-0.79 and +0.75) and was inclusive of a stretch factor. FortisBC argues that adding an X-Factor in FortisBC’s instance is not appropriate as FEI and FBC have operated under some form of PBR for the majority of the last 22 to 24 years (respectively). In addition, this was a first PBR in Alberta and the efficiency opportunities appear to be much higher as two Alberta utilities triggered off-ramp provisions due to high ROE’s. Further, the Concentric Benchmarking Studies confirm that FEI’s and FBC’s operating costs are lower than the median of their peer groups.

¹⁹¹ Exhibit B-12, BCUC IR 163.3.

¹⁹² FortisBC Final Argument, pp. 61–63.

The Regie’s decision was similar to the AUC in that its 0.3 percent X-Factor included an unspecified stretch factor. FortisBC states that the Regie’s opinion was that Hydro Quebec Distribution would be able to achieve additional efficiency gains pointing out this was a first-generation revenue cap plan, which may indicate higher productivity opportunities.¹⁹³

Stretch Factor

FortisBC states that review of regulatory decisions indicates there are two primary reasons for use of a stretch factor, neither of which is applicable to FBC or FEI; (1) there has been a transition from a COS framework and there is “low hanging fruit” or identifiable opportunities for productivity improvements and (2) a utility does not benchmark well against its peers.

i) Transition from COS or Low Hanging Fruit

FortisBC argues that neither FEI nor FBC is transitioning to a multi-year performance-based framework and there is no low hanging fruit. Both FEI and FBC have just completed a 6-year PBR plan and individually, FEI has operated under a PBR framework for 16 of the last 20 years and FBC for 20 of the last 24 years. Under the Current PBR Plans, the Utilities have had significant permanent savings which are reflected in their respective 2019 Base O&M. Consequently, the opportunities for additional O&M reductions have diminished at a steady rate and there is limited opportunity for further productivity gains. FortisBC argues that productivity gains will continue to be difficult to find and therefore, there is no low hanging fruit and a stretch factor cannot be justified.¹⁹⁴

ii) FEI and FBC Benchmark Results

In the Current PBR Plan Decisions FortisBC was directed to file a benchmarking study prior to the end of the PBR to help inform any X-Factor value determination in a future PBR.¹⁹⁵ These were prepared by Concentric and filed as part of the Application for both Utilities. FortisBC states that this analysis can be used to estimate the relative cost-efficiency of FEI and FBC as compared to their peer group consisting of five Canadian and eight Pacific Northwest U.S. Natural Gas companies (FEI) and nine Canadian and five Pacific Northwest U.S. electric Utilities (FBC). The metrics were chosen in consultation with FortisBC and stakeholders and measure the utilities’ financial efficiency, reliability and customer service performance. The benchmarking results indicate that both FEI and FBC are relatively more efficient than the median of peer companies in the majority of benchmarked metrics. FortisBC interprets the median as representative of peer performance for the various metrics and the median provides an appropriate benchmark to assess the Utility’s relative efficiency to its peers.¹⁹⁶

FEI Benchmarking Study Results Summary

Table 14 is a summary of the benchmarking study analysis. This table outlines the percentage difference between FEI’s results and the Canadian peer group median (inclusive of FEI) for each of the metrics in each year.

¹⁹³ FortisBC Final Argument, pp. 62–65.

¹⁹⁴ *Ibid.*, pp. 67–68.

¹⁹⁵ FEI Current PBR Plan Decision, p. 82; FBC Current PBR Plan Decision, p. 80.

¹⁹⁶ FortisBC Final Argument, pp. 69–71; Exhibit B-1-1, Appendix C2-1 (FEI Benchmarking Study), pp. 4–5; Appendix C2-2 (FBC Benchmarking Study), pp. 4–5; Exhibit B-12, BCUC IR 164.13.1.

The areas that are shaded green indicate where FEI performed better than the median and where red, FEI performed worse than the median. Where there is no shading FEI was at the median or the sample size was insufficient.

Table 14: FEI Summary of Benchmarking Analysis¹⁹⁷

% Difference - FEI from Canadian Median	2012	2013	2014	2015	2016	2017
Distribution O&M + Total A&G per Customer	-27%	-28%	-28%	-29%	-30%	-32%
Distribution O&M + Total A&G per TJ	0%	-4%	0%	0%	-4%	0%
Distribution O&M + Total A&G per Employee	-27%	-29%	-25%	-21%	-23%	-28%
Distribution O&M + Total A&G per km of Mains	1%	-13%	-13%	-13%	-18%	-18%
Distribution Net Plant per Customer	7%	6%	6%	5%	3%	-1%
Distribution Net Plant per Employee	0%	14%	13%	14%	2%	-3%
Distribution Net Plant per km of Mains	0%	-2%	-4%	-6%	-12%	-14%
Administrative and General Expense per Customer	-49%	-50%	-50%	-49%	-51%	-53%
Administrative and General Expense per TJ	0%	0%	0%	0%	0%	0%
Customer Care Expense per Customer	-12%	-12%	-22%	-32%	-31%	-29%
Customer Care Expense per TJ	52%	55%	48%	42%	37%	31%
Interest Expense per Customer	11%	13%	12%	14%	17%	3%
Emergency Response Time (within 1 hr)	1%	1%	0%	0%	1%	2%
Telephone Service Factor - Emergency	NA	NA	NA	NA	NA	NA
Telephone Service Factor - Non-Emergency	-6%	-14%	-9%	-16%	-16%	-16%
First Contact Resolution	NA	NA	NA	NA	NA	NA
Telephone Abandon Rate	-9%	-25%	-14%	-13%	0%	-9%
DSM Expenditures (with incentives) per Customer	5%	11%	9%	19%	-4%	-14%
DSM Expenditures (without incentives) per Customer	2%	10%	10%	12%	-12%	-20%
DSM Expenditures (incentives only) per Customer	8%	11%	9%	23%	1%	-10%
Total Emissions tonnes CO2e per Customer	0%	0%	0%	-16%	-20%	NA
Total Emissions tonnes CO2e per TJ	3%	5%	17%	0%	0%	NA

FEI reports that it out-performed or met its peer group median in the majority of financial metrics studied and, in particular, with O&M and total A&G (Administration and General) cost metrics. FEI outperformed its peer group in almost all years studied. More specifically, FEI outperformed or met the peer group median in seven of the twelve metrics studied for the financial metrics. Generally, FEI's performance was better when expressed on a per customer basis than when expressed on a per-volume basis. FEI states that its high percentage of residential and commercial customers provides "an explanatory factor in the difference between its results on the per-customer basis versus per-volume metrics."¹⁹⁸ FEI performed better with distribution O&M plus total Administration and General A&G expenses on a per customer, per volume, per employee and per kilometer of distribution mains basis. It performed less favourably with respect to customer care costs per unit of volume but did much better on a per customer basis. FEI also performed less favourably with respect to net plant per customer and per employee basis until 2017 where it performed at the approximate level of the peer group. This, it states, is indicative of the relatively flat level of net plant as compared to peers which experienced rising net plant.

Concerning reliability, customer service and other metrics, FEI performed better than the peer group on two metrics, at or better on four metrics and at or below the median on two metrics for most or all the years. There was insufficient data on which to compare the peer groups on two of the factors, emergency telephone service factor (TSF) and first contact resolution (FCR). With respect to Demand Side Management (DSM), FEI expenditures fell below the median by 2017 but notes DSM expenditures are dependant on the availability of regulatory systems for cost recovery and the utility's efficiency in deploying programs.

¹⁹⁷ Exhibit B-1-1, Appendix C2-1, p. 36.

¹⁹⁸ ExhibitB-1, p. B-53.

FEI reports in summary that it performed at or better than its peer group median on financial metrics excepting net plant per customer and customer care expenses per terajoule (TJ). Results for the service quality and reliability metrics were more varied but FEI explains that these require more context whether it be understanding the target metrics to which FEI is performing (e.g. for TSF or FCR) or the drivers behind the performance trends (e.g., for DSM spending).¹⁹⁹

FBC Benchmarking Study Results Summary

Similarly, Table 15 provides a summary of the benchmarking analysis for FBC and outlines the percentage difference between FBC's results and the Canadian peer group median (inclusive of FBC) for each of the metrics in each year from the study. The colours indicate FBC's level of performance in the same manner as outlined for FEI. FBC, in terms of financial metrics, outperformed or met the peer group median in six of the twelve metrics analysed in most years and in six areas FBC lagged peer group medians.

Table 15: FBC Summary of Benchmarking Analysis²⁰⁰

% Difference - FBC from Canadian Median	2012	2013	2014	2015	2016	2017
Distribution O&M + Total A&G per Customer	-4%	-11%	-5%	-6%	-4%	-4%
Distribution O&M + Total A&G per MWh	-5%	-21%	-15%	-11%	-10%	-13%
Distribution O&M + Total A&G per Employee	-52%	-41%	-39%	-45%	-40%	-48%
Distribution O&M + Total A&G per km Distribution Line	-44%	-46%	-23%	-25%	-16%	-9%
Distribution Net Plant per Customer	127%	122%	117%	117%	106%	98%
Distribution Net Plant per Employee	10%	43%	22%	12%	11%	0%
Distribution Net Plant per km Distribution Line	42%	47%	50%	52%	47%	73%
Administrative and General Expense per Customer	-4%	-11%	-2%	-3%	0%	1%
Administrative and General Expense per MWh	-4%	-10%	0%	-14%	-3%	-2%
Customer Care Expense per Customer	44%	62%	63%	42%	19%	30%
Customer Care Expense per MWh	29%	49%	55%	51%	17%	17%
Interest Expense per Customer	138%	123%	122%	108%	87%	85%
Emergency Response Time (within 2 hrs)	3%	5%	17%	5%	5%	3%
SAIDI	-1%	0%	0%	0%	-4%	80%
SAIFI	-2%	0%	0%	2%	-7%	11%
Generator Forced Outage Rate	NA	NA	NA	NA	NA	NA
Telephone Service Factor - Non Emergency	-6%	-7%	-35%	-5%	-4%	0%
First Contact Resolution	NA	-14%	-12%	-10%	-7%	-5%
Telephone Abandon Rate	-8%	-13%	376%	0%	30%	-3%
DSM Expenditures (with incentives) per Customer	69%	29%	0%	0%	36%	101%
DSM Expenditures (without incentives) per Customer	42%	26%	-9%	16%	52%	21%
DSM Expenditures (incentives only) per Customer	73%	57%	37%	1%	21%	54%

FortisBC states that FBC performed better on the broadest of expense levels analysed, distribution O&M plus total A&G expense on a per customer, per volume, per employee and per kilometer of distribution line basis. Its results were less favourable on a net plant per customer, employee and kilometer of distribution line basis as well as on interest expense per customer basis and customer care metrics.

With respect to areas like reliability, customer service and other metrics, FBC results were at or better than the peer group on three of the metrics in all years, at or better on three metrics in most years, and at or below median on two metrics for most years. Concerning reliability measures such as SAIDI and SAIFI, FBC's measures were better than or close to the median for all years except 2017. The increase in 2017 coincides with the implementation of a new Outage Management System. This is an automated tracking system with a changed definition for outage start time. In addition, there were some natural disasters in 2017 that failed to meet the

¹⁹⁹ Exhibit B-1, pp. B-52–B-54.

²⁰⁰ Exhibit B-1-1, Appendix C2-2, p. 37.

exclusion criteria for SAIDI and SAIFI. On emergency response time, FBC was at or above its performance benchmark of 93 percent in 2013, 2016 and 2017. FBC reports that it was at or below the peer group median on two metrics, TSF non-emergency and FCR. FBC states that in 2014 a labour disruption impacted TSF non-emergency results. Across the customer service metrics FBC's performance, although relatively consistent, generally lagged the Canadian peer group over the period.²⁰¹

FortisBC states that the performance on O&M metrics and most metrics studies show that FEI and FBC are relatively more efficient than their peer companies and because of this, a stretch factor would not be reasonable.²⁰²

Positions of Interveners

There was general agreement among most interveners that there was a need for an X-Factor but there were significant differences among them as to how this should be handled. The key points made by interveners are summarized as follows:

CEC

The CEC points out the evidence demonstrates that despite there being an X-Factor in place under PBR, FEI had a positive ROE result in each of the years and exceeded the allowed rate of return by an average of 0.38 basis points (Bp) for the five years ending in 2018. FBC was directionally similar with a positive result in each of the years and exceeded the allowed rate of return by an average of 0.14 Bp. The CEC argues that both utilities were able to underspend their O&M with an X-Factor in place. These excess earned returns over approved levels do not support the Utilities' statements that an X-Factor is unsuitable as despite having an X-Factor in the Current PBR, the Utilities were able to manage well.

The CEC also addresses FortisBC's statements regarding 'low hanging fruit' in making the following assertion:

[T]he Utilities appear to consider they are entitled to receive extra ROE for addressing 'low hanging fruit'. The fact that it becomes 'difficult' appears to negate the need for a 'stretch' factor. It further implies that the appropriateness of a 'stretch factor' relates to being in an inefficient position relative to their peers.

In the CEC's view, additional rewards should not be available for 'low hanging fruit' and shouldn't exist where there is prudent management. The presence of 'low hanging fruit' during a PBR suggests that until inefficiencies are eliminated, the approved ROE could have been reduced. In the CEC's view, additional rewards should only be available if the Utilities can stretch beyond an efficient position with respect to their peers.²⁰³

BCSEA

BCSEA states that the X-Factor is contentious but takes no firm position on it. BCSEA acknowledges that the industry productivity trend is negative, but it also recognizes that the inclusion of a stretch factor in the Current PBR Plans was to many parties a crucial element.²⁰⁴

²⁰¹ Exhibit B-1, pp. B-55–B-57.

²⁰² FortisBC Final Argument, p. 71.

²⁰³ CEC Final Argument, pp. 41–42.

²⁰⁴ BCSEA Final Argument, p. 14.

BCMEU

BCMEU notes that FBC has proposed a zero-productivity factor for the first time under a PBR. It submits that proposing a zero-productivity factor reduces both ratepayer benefits and ratepayer support for the Proposed MRPs in making the following observation:

While the regulatory compact ensures that a public utility has a reasonable opportunity to recover its prudently incurred costs and earn a fair rate of return, the BCMEU submits that broader context dictates that a positive productivity factor still gives the Utilities a reasonable opportunity to recover its costs and earn a fair return.

BCMEU cautions against approval of an inappropriate productivity factor where the gains are skewed towards one party and urges the BCUC to consider the achieved gains from a historical perspective over the last five years. While a zero-productivity factor is proposed, BCMEU argues that section 60 of the UCA gives the BCUC wide jurisdiction in determining and setting formulas for ratemaking.²⁰⁵

With reference to FortisBC's reliance on productivity growth trends within the industry and the determinations of regulators in other jurisdictions, BCMEU notes that productivity growth has been declining industry-wide over the last 10 to 15 years and "this is not a new trend with increased relative relevance specific to the MRP." Moreover, BCMEU cautions the BCUC against placing too much emphasis on data that is not specific to FortisBC Utilities operational history of success "in finding efficiencies while pursuing and achieving a higher than allowed rate of return."²⁰⁶

BCOAPO

Noting that recent Canadian decisions have set the X-Factor at +0.3 percent, BCOAPO states that contrary to FortisBC's argument this represents a decline to a lower amount as opposed to a move to zero. BCOAPO submits that a BCUC approval of an X-Factor of zero would result in incremental funding that renders the plan too generous for the Utilities. It argues that FortisBC has managed its costs per customer at a level below inflation and has seen declining costs. In BCOAPO's view, this level of generosity obviates the need for other recommended plan changes such as removal of the 50 percent growth factor.²⁰⁷

MoveUP

MoveUP acknowledges that the FortisBC proposed change to a zero X-Factor will increase the Utilities' O&M amounts and there is a risk to customers in approving a mechanism that is too generous and may result in excess returns. However, there is also a risk to customers if approved O&M amounts are insufficient given the changing circumstances and cost pressures faced by the Utilities. MoveUP submits the FortisBC proposals represent a reasonable balance between these concerns and the proposed continuation of the ESM mitigates the risk for excess returns.²⁰⁸

²⁰⁵ BCMEU Final Argument, pp. 4–5.

²⁰⁶ *Ibid.*, p. 6.

²⁰⁷ BCOAPO Final Argument, pp. 49–50.

²⁰⁸ MoveUP Final Argument, p. 16.

ICG

ICG points out that a TFP study was not filed for FBC and takes issue with FortisBC stating that an X-Factor determination can be made based on those prepared for other jurisdictions and the value arrived at by other regulators. ICG argues that FBC cannot now incorporate such evidence from other jurisdictions as it would require the BCUC to conclude that a TFP for another jurisdiction applies to FBC with no adjustment for the circumstances of the Utilities or future expected changes. ICG argues that FortisBC had ample opportunity to file evidence in support of a zero X-Factor but has not done so and the BCUC “should not now mend together an Application that is otherwise deficient.” Consequently, ICG argues that the BCUC should deny the Application rather than rely on inadequate COS evidence or a TFP analysis from other jurisdictions.²⁰⁹

FortisBC Reply Argument

FortisBC considers BCMEU’s opposition to the zero percent productivity factor based on there being no changes in circumstances since the beginning of the Current PBR Plans to be plainly false and argues the evidence filed within this proceeding has refuted this. It believes the BCMEU’s submission is misleading and should be given no weight.²¹⁰

FortisBC disagrees with the view raised by some interveners that because it has achieved savings over the PBR Plan this will continue, and the X-Factor should be positive. It argues that achieved savings and ROE values support a zero percent productivity factor. In support of its position FortisBC makes the following arguments:

- The productivity value is customarily based on the expected industry productivity information, not on utility-specific information like past achieved efficiencies;
- The stretch factor relates to industry-specific information but FortisBC’s experience with PBR and the Benchmarking study indicate a stretch factor is not warranted;
- The Base O&M is proposed to be rebased starting with 2018 actual O&M and captures all the savings achieved under the previous PBR;
- It is unreasonable to expect the same downward trend in O&M per customer to continue indefinitely; and
- The achieved ROE over the PBR was well below the level set for an off-ramp. Having a result higher than the off-ramp ROE may indicate that the utility has higher efficiency potential but does not indicate there is more efficiency potential going forward.²¹¹

FortisBC also takes issue with the CEC stating that “the Utilities appear to consider they are entitled to receive extra ROE for addressing ‘low hanging fruit.’ It states that it never said this. It asserts that ‘low hanging fruit’ has been used to justify a stretch factor in some jurisdictions and affirms it has no low hanging fruit.

With respect to BCOAPO’s comment that a zero percent productivity factor would result in incremental funding, FortisBC responds that a productivity factor does not provide any funding to the Utilities. It argues that finding

²⁰⁹ ICG Final Argument, p. 11.

²¹⁰ FortisBC Reply Argument, pp. 32–33.

²¹¹ Ibid., pp. 35–36.

new productivity opportunities is increasingly difficult and Fortis will need to rely on “doing more with the same.”

BCOAPO has submitted that the move in other jurisdictions to 0.3 percent productivity was a decline but not a move to zero. FortisBC states it provided a detailed analysis of these decisions and BCOAPO provided no evidence or authority rebutting this analysis and these submissions should be rejected.²¹²

Panel Determination

The FortisBC Utilities have operated under a multi-year performance-based framework for much of the last 20 years and the Current PBR Plans, covering a six-year period, has come to an end. FortisBC argues that FEI and FBC finds it increasingly difficult to find efficiencies and there is no more ‘low hanging fruit’ to address. The Panel accepts that the six-year duration of the Current PBR Plans has some impact on future opportunities for efficiencies and agrees this should be considered when determining the need for and quantum of an X-Factor. However, we do not agree with FortisBC’s use of the term ‘low hanging fruit’ and any implication that the primary purpose of a multi-year performance-based framework is to focus on ‘low hanging fruit’ as the primary means of creating efficiencies. On the contrary, the expectation in moving forward with the Proposed MRPs is that the Utilities will examine their businesses and find ways to re-engineer processes and identify opportunities for efficiencies and, in doing so, create additional cost savings.

In addition to impacts on opportunities for future efficiencies due to the recently completing a six-year PBR, FortisBC has based its arguments in favour of a zero X-Factor on two factors: (1) the results of recent productivity studies conducted in other jurisdictions; and (2) the results of the Concentric Benchmarking Studies.

Results of Recent Productivity Studies

FortisBC chose not to undertake a productivity study for this proceeding. Instead it has relied on studies filed in other parts of Canada and the decisions based on the review of these studies. In its view, the studies themselves point to a significant and ongoing drop in utility industry productivity levels due to the North American utility industry being amid an unprecedented technological and climate driven transition. This productivity decline is likely to continue as outlined in the evidence of the EEI Institute. The Panel does not disagree with these studies nor do we disagree with the evidence of EEI or its applicability to the natural gas industry. A recent project such as FEI’s Lower Mainland Intermediate Pressure System Upgrade Projects (LMIPSU Project)²¹³ is a good example of the costly replacement of existing equipment. However, the Panel does not agree these studies apply to FEI and FBC’s productivity expectations within the context of these MRPs. The Panel is not persuaded that the recent Productivity Studies can reasonably be relied upon in this instance and therefore finds that FortisBC’s evidence concerning recent productivity study results can be given little weight.

The Panel bases this finding on its understanding that TFP studies are designed to consider a utility’s total productivity and need to consider and be applied to the entire utility’s operation. The AUC affirmed this in its 2016 PBR Decision cited by FortisBC:

²¹² FortisBC Reply Argument, pp. 37–38.

²¹³ Order G-80-19.

In Decision 2012-237, the Commission recognized that while the TFP study used in determining the X factor for the Alberta distribution utilities reflected a rate of long run productivity growth for a set of distribution utilities over time and, therefore, necessarily included capital input costs.²¹⁴

Therefore, if the X-Factor is to apply to a utility's entire operation, it would be reasonable for the TFP studies to be applicable to FortisBC. However, this is not the case with the Proposed MRPs where the X-Factor applies only to O&M expenses and a small part of the capital expenditures. The X-Factor does not apply to flow-through revenue requirement items, forecast Regular capital expenditures and Major Projects. Based on the EEI survey discussed earlier, increased capital expenditures are the major reason why the recent TFP studies continue to result in negative productivity levels. Therefore, because increased capital expenditures are a primary reason for the declining trend in productivity growth and are, for the most part unaffected by their being an X-Factor in these Proposed MRPs, the Panel finds that TFP studies are not sufficiently relevant to be applied to FEI and FBC's in this instance.

Further, given the lack of application of an X-Factor to the large number of these important cost areas, the Panel is not persuaded that productivity studies from other jurisdictions can be applied or are relevant in this instance. The fact that many costs are either based on forecast or flowed through to ratepayers means that these amounts are set based upon estimated current needs and are not directly related to or affected by the existence of a positive X-Factor.

Benchmarking Study Results and Applicability of a Stretch Factor

Both FEI and FBC have performed at a level that was at or better than the median of their Canadian peer groups on a significant number of the metrics. FortisBC states that its performance on O&M metrics and the majority of metrics studies demonstrate that FEI and FBC are relatively more efficient than their peer companies and because of this, a stretch factor would not be reasonable.

The Panel agrees that FEI and FBC's performance on the benchmark metrics is superior to the median of their peer group on many of the metrics. The Panel disagrees that a stretch factor could not be applied because the Utilities have reached a productivity performance level that restricts their potential for further improvement. To illustrate this point, the Panel relies on responses to a BCOAPO IR where FEI and FBC were asked to set out their respective rankings among their peer groups from 2012 through 2017. In response to this request, FortisBC provided Table 16 for FEI and Table 17 for FBC.

²¹⁴ AUC Decision 20414-D01-2016, 2018-2022 Performance-Based Regulation Plans for Alberta Electric and Gas Distribution Utilities, para. 178.

Table16: FEI Ranking Against Peer Group on Metrics²¹⁵

FEI Metric and Rank	2012	2013	2014	2015	2016	2017
Distribution O&M + Total A&G per Customer	1/5	1/5	1/5	1/5	1/5	2/5
Distribution O&M + Total A&G per TJ	3/5	2/5	3/5	3/5	2/5	3/5
Distribution O&M + Total A&G per Employee	1/4	1/5	1/5	1/5	1/5	1/5
Distribution O&M + Total A&G per km of Mains	3/4	2/5	2/5	2/5	2/5	2/5
Distribution Net Plant per Customer	4/6	4/6	4/6	4/6	4/6	3/6
Distribution Net Plant per Employee	3/5	4/6	4/6	4/6	4/6	3/6
Distribution Net Plant per Employee	3/5	3/6	3/6	3/6	3/6	3/6
Administrative and General Expense per Customer	2/5	2/5	2/5	2/5	2/5	2/5
Administrative and General Expense per TJ	3/5	3/5	3/5	3/5	3/5	3/5
Customer Care Expense per Customer	2/4	2/4	2/4	2/4	2/4	2/4
Customer Care Expense per TJ	3/4	3/4	3/4	3/4	3/4	3/4
Interest Expense per Customer	4/6	5/6	5/6	5/6	5/6	4/6
Emergency Response Time (within 1 hr)	2/5	2/6	4/6	3/6	3/6	3/6
Telephone Service Factor - Emergency	NA	NA	NA	NA	NA	NA
Telephone Service Factor - Non-Emergency	3/3	4/4	3/4	4/4	4/4	4/4
First Contact Resolution	NA	NA	NA	NA	NA	NA
Telephone Abandon Rate	2/5	1/5	1/5	2/5	3/5	2/5
DSM Expenditures (with incentives) per Customer	2/4	2/4	2/4	2/4	3/4	3/4
DSM Expenditures (without incentives) per Customer	1/4	2/4	2/4	2/4	3/4	3/4
DSM Expenditures (incentives only) per Customer	2/4	2/4	2/4	2/4	2/4	3/4
Total Emissions tonnes CO2e per Customer	3/5	3/5	3/5	2/5	2/5	NA
Total Emissions tonnes CO2e per TJ	4/5	4/5	4/5	3/5	3/5	NA

Table 16 for FEI depicts the relative ranking among peers for the two years previous to the PBR and from 2014 to 2017 (FEI's ranking among peers is the first number; the second number denotes the number of peers with this metric). The Panel notes that when 2013 (the year before the start of the Current PBR Plans) is compared to 2017 (when the data was collected) the relative ranking performance of FEI to its peers showed no improvement. In fact, the top two rankings were achieved eleven times in 2013 and this number was reduced to six in 2017. This indicates that since 2013, FEI fell relative to its peers on many of the metrics.

²¹⁵ Exhibit B-5, BCOAPO IR 17.1.

Table 17: FBC Ranking Against Peer Group on Metrics²¹⁶

FBC Metric and Rank	2012	2013	2014	2015	2016	2017
Distribution O&M + Total A&G per Customer	4/8	2/8	4/9	3/9	4/9	3/8
Distribution O&M + Total A&G per MWh	4/9	3/9	3/9	3/9	3/9	2/9
Distribution O&M + Total A&G per Employee	1/9	1/9	1/9	1/9	1/9	1/9
Distribution O&M + Total A&G per km Distribution Line	2/7	2/7	3/7	3/7	3/7	3/7
Distribution Net Plant per Customer	9/10	9/10	9/10	9/10	9/10	8/9
Distribution Net Plant per Employee	7/10	9/10	9/10	8/10	7/10	5/9
Distribution Net Plant per km Distribution Line	7/8	7/8	7/8	7/8	6/8	5/7
Administrative and General Expense per Customer	4/8	4/8	4/9	4/9	5/9	5/8
Administrative and General Expense per MWh	4/8	3/8	5/9	4/9	4/9	4/8
Customer Care Expense per Customer	4/4	4/4	5/5	5/5	5/5	4/4
Customer Care Expense per MWh	4/4	4/4	5/5	5/5	5/5	4/4
Interest Expense per Customer	9/9	9/9	8/9	8/9	7/9	7/9
Emergency Response Time (within 2 hrs)	2/4	2/4	1/4	1/4	2/4	2/4
SAIDI	4/8	5/9	5/9	4/9	4/9	7/9
SAIFI	4/8	4/9	5/9	6/10	4/10	8/10
Generator Forced Outage Rate	NA	NA	NA	NA	NA	NA
Telephone Service Factor - Non Emergency	4/5	5/5	5/5	4/5	4/5	3/5
First Contact Resolution	NA	5/6	5/6	5/6	6/7	7/8
Telephone Abandon Rate	3/6	3/7	7/7	4/7	5/7	4/8
DSM Expenditures (with incentives) per Customer	5/5	5/5	3/5	3/5	6/6	5/6
DSM Expenditures (without incentives) per Customer	3/4	3/4	2/4	3/4	4/5	5/5
DSM Expenditures (incentives only) per Customer	4/4	3/4	3/4	3/4	4/5	4/5

Table 17 for FBC is like Table 16 for FEI. The Panel notes that when 2013 (the year before the start of the Current PBR Plans) is compared to 2017 (when the data was collected) the relative ranking performance of FBC to its peers changes very little. Top two rankings were achieved by FBC four times in 2013 and three times in 2017. Top three rankings in 2013 totalled nine and this number was reduced to six in 2017. We also note that there is only one top ranking in both cases which in our view demonstrates the potential for improvement on the other metrics.

The Panel acknowledges that the information provided by these two tables does not address whether other peer group members improved their performance or by how much. However, the information does indicate there is opportunity for improved results moving forward. In light of this evidence, **the Panel rejects FortisBC's argument that introducing a stretch factor would be unreasonable.**

Setting the X-Factor

The Panel notes there is general disagreement among the intervener group with respect to the approval of a zero percent X-Factor. Given our findings on this matter the Panel agrees. However, we acknowledge that FortisBC has just ended the Current PBR Plans and it would not be reasonable to expect the same level of productivity improvement that was achieved over the last six years. We therefore accept there will be increased challenges associated with achieving savings as the Utilities undertake a further performance-based framework. Accordingly, the Panel accepts that a reduction of current X-Factors from the Current PBR Plans for both Utilities is appropriate to allow them a reasonable opportunity to earn a fair return. **Therefore, in consideration of**

²¹⁶ Exhibit B-5, BCOAPO IR 18.1.

regulatory decisions in other jurisdictions and using our experience and judgement, the Panel determines that an X-Factor of 0.5 percent inclusive of the stretch factor is applicable for both FEI and FBC for the Proposed MRP term. The Panel finds that a 0.5 percent X-Factor recognizes the Utilities' efficiency efforts over the past six years and also considers the interests of ratepayers by providing a reasonable challenge to the Utilities to continue to identify efficiency opportunities which benefit all parties. The Panel notes that the inflation factor and the increase to the growth multiplier (as approved in this Decision) work to the benefit of the Utilities by increasing O&M funding levels. Having a positive X-Factor will help mitigate the potential risk of formula driven O&M levels being overstated.

3.2.7 Exogenous (Z) Factors

An important component of the Current PBR Plans is exogenous factors or Z factors that are described as non-controllable and unforeseen costs that flow-through to rates. FortisBC applied for Exogenous factor treatment on a number of occasions in the Current PBR Plans. Consistent with the Current PBR Plans, FortisBC proposes this component be retained with customer rates being adjusted either up or down for the cost of severe impacts on O&M or capital costs that are caused by exogenous factors that are beyond the control of FEI or FBC over the Proposed MRP term. Examples of these circumstances include events such as the following:

- Judicial, legislative or administrative changes, orders or directions;
- Catastrophic events;
- A major seismic event;
- Acts of war, terrorism or violence; or
- Changes in revenue requirements due to BCUC decisions.

Where such events occur, customers will pay only for the actual costs in those cases where the Utilities cannot control the level of expenditures.

Operationally, FortisBC will identify exogenous events that have either occurred or are expected to occur and apply for exogenous relief during the Annual Review process. This approach is consistent with the Current PBR Plans which operate under the following criteria for determining whether an event's impacts qualify for exogenous factor treatment:

1. The costs/ savings must be attributable entirely to events outside the control of a prudently operated utility;
2. The costs/savings must be directly related to the exogenous event and clearly outside the base upon which rates were originally derived;
3. The impact of the event was unforeseen;
4. The costs must be prudently incurred; and
5. The costs/savings related to each exogenous event must exceed the BCUC defined materiality threshold.

The Current PBR Plan Decisions defined the materiality threshold at 0.5 percent of either FEI's or FBC's 2013 Base O&M. This resulted in materiality thresholds of \$1.140 million for FEI and \$0.301 million for FBC. FortisBC reports that the Utilities proposed exogenous factor treatment on a number of occasions and provided examples of where they were approved.²¹⁷

Consistent with its position in the Current PBR Plan proceedings, FortisBC continues to argue that the materiality factor threshold is neither needed nor required. During those proceedings FortisBC's position was that it should have the ability to bring forward any exogenous factor request for discussion and review within the Annual Review process. In the Current PBR Plan Decisions, the BCUC found that materiality thresholds were a necessary component of the exogenous factor criteria as they met FortisBC's guiding principle of reducing the regulatory burden. In its decision, the BCUC stated that having a materiality threshold "...reduces reliance on Fortis' judgment and instead creates a more transparent and objective process for determination of exogenous factor applicability." In determining the appropriate materiality threshold for FEI and FBC, the BCUC stated it "considered the balance between regulatory efficiency, providing the Companies with a reasonable opportunity to recover prudently incurred costs and allowing ratepayers the opportunity to realize the benefits of cost savings." In addition, it considered the materiality thresholds set in other jurisdictions with Alberta and Ontario among them.²¹⁸

FortisBC states that it believes having a materiality threshold in the Current PBR Plans "resulted in confusion, and lengthy submissions on how to define a threshold and how it should be applied." In support of its removal FortisBC offers the following reasons:

- A. As a matter of principle Utilities should have a reasonable opportunity to recover prudently incurred costs.
 - FortisBC argues that exogenous factors are unforeseen costs which are outside the control of the Utilities and it should be given the opportunity to recover them even if minor.
- B. Its removal will improve administrative simplicity and regulatory efficiency
 - FortisBC argues that the materiality threshold contributed to confusion and complexity during the Current PBR Plans as it led to argument and process as to how to measure the materiality threshold. It states that FEI and FBC recognize the importance of regulatory efficiency and don't intend to bring forward minor items. Further, any impact of the increased number of exogenous factors will be outweighed by not having to argue and present evidence about the materiality threshold.
- C. Reliance on FortisBC's judgement is just and reasonable
- D. Transparency and objectiveness of the review process for determining the Exogenous Factor Applicability will be maintained.
 - FortisBC states that the process for consideration will remain the same and interveners and the BCUC will be able to pose questions related to the nature of the items and whether it fits under the criteria.
- E. The materiality threshold is neither needed nor helpful.²¹⁹

²¹⁷ Exhibit B-1, pp. C-115–C-116.

²¹⁸ FEI Current PBR Plan Decision, p. 98; FBC Current PBR Plan Decision, p. 95.

²¹⁹ FortisBC Final Argument, pp. 99–102.

Positions of Interveners

Only the CEC and BCSEA made specific submissions concerning FortisBC's proposal to eliminate the materiality threshold from exogenous factor treatment.

The CEC submits that it is not appropriate to remove the materiality threshold which serves to ensure that the company addresses its normal operating costs within formulaic spending.²²⁰

BCSEA supports the FortisBC proposal to remove the materiality threshold from exogenous factor treatment agreeing that it will make the Annual Review process administratively simpler and more efficient.²²¹

FortisBC Reply Argument

FortisBC acknowledges the CEC's argument and reiterates many of the points raised in its Final Argument with emphasis on its argument that the establishment of a materiality threshold restricts the utility from having a reasonable opportunity to recover prudently recovered costs.²²²

Panel Determination

FortisBC's position there is no need for a materiality threshold is based on the premise that it restricts the utility from having a reasonable opportunity to recover prudently incurred costs and it is regulatorily inefficient. The Panel disagrees and is not persuaded by FortisBC's arguments. The following discussion outlines our reasons for that determination.

Having the Opportunity to Recover Prudently Incurred Costs

Under a performance-based framework, Base O&M and capital Base levels are set and a methodology for increasing them over the term of the plan is determined. Except where stipulated in a decision, there is no opportunity to revisit these amounts which creates a level of risk for both the Utilities and ratepayers. Throughout the MRP term, there will be unexpected costs that may arise in a variety of areas. Most of these will likely be costs that are prudently incurred, yet there will likely be no provision for such costs to be recovered. If there is no provision for exogenous factor treatment this would also apply to unforeseen events.

Having an exogenous factor in place protects both the ratepayer and the Utilities from significant unpredictable events that have the potential to impact the Utility's ability to earn a fair return. Having a materiality threshold allows the Utilities to recover costs for significant events of this nature while maintaining a level of risk related to positive or negative outcomes for smaller items or events that are not foreseen or expected. In the Panel's view, this is an important component of a performance-based framework and its inclusion in similar plans in other jurisdictions affirms this.

Does the elimination of the materiality factor contribute to regulatory efficiency?

The exogenous factor has been put in place to allow for a review of unforeseen events resulting in incremental

²²⁰ CEC Final Argument, p. 57.

²²¹ BCSEA Final Argument, p. 19.

²²² FortisBC Reply Argument, pp. 52–53.

costs large enough to have a major impact on the Utilities' ability to earn a fair return or to recover costs on an overall basis. If a materiality threshold were not in place it would increase the number of exogenous event applications and this potential increase is likely to be significant. The Panel's concern is that granular review of a larger number of applications would lead to regulatory inefficiencies and run the risk of negating some of the benefits of undertaking a PBR/MRP plan. We are therefore not persuaded that having a materiality factor creates regulatory inefficiencies and note that the Current PBR Plans have been in place for six years and by now it is reasonable to expect that the parties are more familiar and able to deal with issues that arise.

Therefore, the Panel finds that maintaining materiality thresholds for FEI and FBC remains appropriate and rejects FortisBC's proposal to eliminate them.

This then raises the question as to whether it is appropriate to consider a change to the size of the materiality threshold. The Panel notes that there has been no evidence presented or argument made to adjust the thresholds and therefore, we must rely upon our best judgement. The Panel notes that FortisBC has provided some examples of cases related to FBC where it was unable to recover costs related to exogenous events; one of these dealt with costs under \$100,000 for O&M costs arising from amended MRS standards and the other to capital costs ranging from \$250,000 to \$483,000 related to forest fires.²²³ The Panel is mindful that the purpose of having an exogenous factor is not to mitigate all risk but rather to mitigate the risk of larger unforeseen events that could potentially have a material effect on the Utilities having the opportunity to earn a fair return. **Therefore, without considering the merits of each of these examples, the Panel, guided by the potential for material impact on each of the Utilities and using its best judgement, determines that a more appropriate exogenous factor materiality threshold for FEI is \$500,000 and for FBC \$150,000.** In the Panel's view these amounts better reflect an appropriate level of risk for both utilities given their respective size and represents an improved level of material impact for both. **Accordingly, the Panel modifies the materiality factor criteria for exogenous factors to set the materiality threshold at \$500,000 for FEI and \$150,000 for FBC.**

3.2.8 Flow through Items and related Deferral Accounts

FortisBC proposes to recognize certain revenue requirement items on a forecast basis with "flow-through" treatment of any forecast variances. Flow-through treatment indicates that actual revenues or costs will flow through to ratepayers. The flow through of actual revenues or costs to rates is achieved by capturing the variance between forecast and actual in a deferral account and typically including the variance in the Utilities' revenue requirements in the following year.

In the Current PBR Plans, flow-through items include revenues, depreciation expense, insurance premiums, income and property taxes, interest expense, and certain forecast O&M expenses. Variances related to these items are captured in each of the Utility's general Flow-through deferral accounts. Other revenue requirement variances are also flowed through to rates using specific deferral accounts (i.e. Pension/OPEB²²⁴ deferral account).²²⁵

²²³ FortisBC Final Argument, pp. 99–100; Exhibit B-7, CEC IR 41.1.

²²⁴ Other Post Employment Benefits (OPEB).

²²⁵ Exhibit B-1, pp. B-27–B-28.

FortisBC seeks continuation of the Flow-through deferral account for the term of the Proposed MRPs. The proposed Flow-through deferral account will continue to capture the annual variances between the approved and actual amounts for those revenues and costs that:

- are included in rates on a forecast basis;
- are proposed for flow-through treatment as identified in Table 18 below; and
- do not have a separately approved deferral account.

FortisBC proposes to establish the Flow-through and other new deferral accounts required for the implementation of the Proposed MRPs including:

Table 18: Summary of Deferral Account Requests²²⁶

Type of Change	Account	Company	Return requests	Additional requests
New Account	BCUC Levies Variance Account	FBC	Rate Base requested	Amortization period of 1 year commencing January 1, 2021.
	MRP Incentives Account	FEI & FBC	WACC requested	Amortization period of 1 year commencing January 1, 2021.
	Innovation Funding Account	FEI & FBC	WACC requested	Costs will be recovered through rider. Any residual balance will be addressed at the end of the term of the Proposed MRPs.
Other	Flow-through Account	FEI & FBC		Extend the use of this deferral account for the duration of the Proposed MRPs and include items set out in Table 19 below.

The proposal related to the Innovation Funding Account is addressed in Section 5.0 of this Decision. The requests related to the Flow-through deferral account and other changes in deferral accounts are discussed below.

FortisBC’s proposed treatment for the forecast variances of each revenue requirement item is outlined in Table 19 below.

²²⁶ Exhibit B-1, Table C5-2, p. C-127.

Table 19: Treatment of Variances in Revenue Requirement Items from Forecast²²⁷

	FEI	FBC
<u>Delivery Revenues (FEI):</u>		
Residential and commercial use rate variances	RSAM	N/A
Customer variances	Flow-through deferral	N/A
Industrial and all other revenue variances	Flow-through deferral	N/A
<u>Revenues and Power Supply (FBC):</u>		
Revenue variances	N/A	Flow-through deferral
Power Supply variances net of PSI	N/A	Flow-through deferral
<u>Gross O&M:</u>		
Index-based O&M variances	Subject to earnings sharing	Subject to earnings sharing
BCUC fees variances	BCUC variances deferral	BCUC variances deferral
Pension & OPEB variances	Pension/OPEB variances deferral	Pension/OPEB variances deferral
All other O&M variances ^{1,3}	Flow-through deferral	Flow-through deferral
<u>Capitalized Overhead:</u>		
Capitalized overhead variances	No variance	No variance
<u>Depreciation and Amortization:</u>		
Depreciation rate variances	No variance	No variance
Depreciation on Clean Growth Projects ^{2,3}	Flow-through deferral	Flow-through deferral
Other depreciation variances	Subject to earnings sharing	Subject to earnings sharing
Amortization of deferrals	No variance	No variance
<u>Property Tax:</u>		
Property tax variances	Flow-through deferral	Flow-through deferral
<u>Other Revenues :</u>		
SCP Mitigation revenues variances	SCP Revenues deferral	N/A
CNG/LNG Recoveries variances	CNG/LNG Recoveries deferral	N/A
Revenues from Clean Growth Projects ^{2,3}	Flow-through deferral	Flow-through deferral
All other other revenue/income variances	Subject to earnings sharing	Subject to earnings sharing
<u>Interest Expense/Cost of Debt:</u>		
Interest on RSAM/CCRA/MCRA/Gas storage	Interest on RSAM/CCRA/MCRA/Gas Storage	N/A
Interest rate variances	Flow-through deferral	Flow-through deferral
Interest on Clean Growth Projects ^{2,3}	Flow-through deferral	Flow-through deferral
Other interest variances	Subject to earnings sharing	Subject to earnings sharing
<u>Income Tax:</u>		
Income tax rate variances	Flow-through deferral	Flow-through deferral
Income tax on Clean Growth Projects ^{2,3}	Flow-through deferral	Flow-through deferral
Other income tax variances	Subject to earnings sharing	Subject to earnings sharing

- 1: Including items forecast outside of the formula such as insurance premiums, NGT stations, biomethane, variable LNG production, integrity digs and EV charging stations.
- 2: Cost of service for NGT fueling stations and tankers, variable LNG production, and EV stations will be captured in the Flow-through deferral account.
- 3: Biomethane other revenues will continue to capture the actual cost of service of the biomethane capital assets and transfer it to the BVA

²²⁷ Exhibit B-1, Table C4-1, p. C-118.

Flow-through Deferral Account

As noted above, FortisBC requests adjustments to the flow-through treatment of forecast variances based on the principle that uncontrollable items should flow through to rates. Further, in keeping with the principle that controllable costs should be subject to earnings sharing, FortisBC also proposes to remove forecast variances from flow-through treatment where these costs have stabilized and become controllable.

Changes to Flow-through Treatment

The proposed changes to flow-through treatment of revenue requirement items compared to the Current PBR Plans, included in Table 19 above are as follows:

- **Electric vehicle (EV) charging stations** - Revenues and costs associated with EV charging stations are proposed to be treated on a flow-through basis.²²⁸ Subject to approval by the BCUC for inclusion of FBC's EV charging stations in rate base,²²⁹ FBC proposes to forecast capital and operating costs associated with the electric vehicle charging stations each year and record the related cost of service variances in the Flow-through deferral account. These stations generate incremental tariff revenue which is subject to flow-through treatment and the proposed treatment is consistent with other clean growth initiatives that generate incremental revenues.²³⁰
- **Controllable depreciation, interest and tax** - Variances in these items driven by regular capital spending are proposed to be subject to earnings sharing rather than treated as a flow-through. This treatment of interest expense is the same as what was previously approved for FEI in years prior to 2014 and for FBC in its 1996-2004 PBR Plan. The uncontrollable components of interest expense (interest rates, and timing and amount of debt issues that result from external capital market and economic factors) are proposed to continue to be captured in the Flow-through deferral account.²³¹
- **Other revenue** - All Other Revenue components have flow-through treatment either through specific deferral accounts or through the Flow-through deferral account in the Current PBR Plans. FortisBC proposes to change the treatment of the following controllable Other Revenue components so that variances are subject to sharing:²³²

Table 20: Components of Other Revenue for FEI and FBC

FEI Other Revenue	FBC Other Revenue
Late Payment Charge	Late Payment Charge
Connection Charge	Connection Charge
NSF Returned Cheques	Other Recoveries
Other Recoveries	Apparatus and Facilities Rental
NGT Overhead and Marketing Recovery	Contract Revenues
	Transmission Access Revenue
	Interest Income

²²⁸ Exhibit B-1, p. C-113.

²²⁹ Exhibit B-12, BCUC IR 225.1. FBC's application for Rate Design and Rates for Electric Vehicle Direct Current Fast Charging Service has been adjourned, pending the B.C. Government's response to the BCUC's recommendations in its Phase Two Report on the Inquiry into the Regulation of Electric Vehicle Charging Service. FBC's EV CDFC stations are excluded from rate base pursuant to Order G-9-18.

²³⁰ FortisBC Final Argument, p. 90.

²³¹ Ibid., p. 92.

²³² Exhibit B-1, p. C-114; Exhibit B-10, BCUC IR 66.1; FortisBC Final Argument, p. 93.

FortisBC submits that it has a degree of control over all the above items, meaning that these items should be subject to earnings sharing.

Changes in Specific O&M Flow-through Items

In addition to the above specific changes in flow-through treatment of cost and revenues items, FortisBC also proposes changes to certain individual O&M cost items which impact Base O&M.

- **Cost of integrity digs** - FEI's cost of integrity digs are proposed to be excluded from FEI's index-based O&M, as FortisBC submits there is considerable uncertainty related to scope, cost, timing and volume of expected digs during the Proposed MRP term.²³³ FortisBC proposes a change from the treatment in FEI's Current PBR Plan and requests treatment of the costs of integrity digs as an O&M flow-through item. FortisBC submits these costs should be flowed through given their uncontrollable nature, the uncertainty of timing and amount, and safety purpose of the digs.²³⁴
- **Liquefied Natural Gas (LNG) O&M** - FEI's LNG O&M costs associated with the Tilbury and Mt. Hayes LNG facilities are captured in the Flow-through deferral account in FEI's Current PBR Plan.²³⁵ FortisBC explains that this treatment was due to the unpredictable nature of the costs while Tilbury 1A was under construction, and when the LNG for transportation was undergoing a period of significant growth. As of the end of 2019, Tilbury 1A is fully in service and the labour, materials and administration costs associated with running Tilbury as a combined operation, as well as LNG for transportation service have stabilized.²³⁶ Given the steady state of LNG operations, FortisBC submits the controllable LNG O&M required to operate the facilities regardless of its use should be in the Base O&M. However, LNG O&M that is driven by use (i.e. the volume of LNG production) is proposed to be treated as a flow-through, since production volumes are variable and expected to increase over the next five years.²³⁷

Other Flow-through changes

- **Incremental regulatory and policy driven costs** - FortisBC states that it is not possible to incorporate new costs into the Base O&M and forecasts of Regular capital related to initiatives in alignment with government policy²³⁸ and that they are more appropriately forecast each year. These incremental costs include the cost of complying with legislatively mandated federal, provincial and municipal climate policy and new Mandatory Reliability Standards (MRS). Instead, FortisBC proposes to bring forward for BCUC approval its plans to comply with changes in regulations to the extent they drive incremental costs. If approved, Fortis proposes that forecast variances from the amounts embedded in revenue requirements should be captured in the Flow-through deferral account.²³⁹ FortisBC notes that costs associated with new MRS were previously granted exogenous factor treatment over the Current PBR Plan term.²⁴⁰

²³³ Exhibit B-1, p. C -22.

²³⁴ FortisBC Final Argument, pp. 115–116.

²³⁵ Exhibit B-1, p. C-112.

²³⁶ Ibid.

²³⁷ FortisBC Final Argument, p. 116.

²³⁸ Exhibit B-10, BCUC IR 65.1.

²³⁹ Exhibit B-1, pp. C-113–C-114.

²⁴⁰ Ibid.

Other Deferral Account Changes

FortisBC requests changes to deferral accounts compared to the Current PBR Plans, as follows:

- **BCUC levies** - FortisBC proposes to establish a new rate-base deferral account for FBC to record the annual variances between actual BCUC levies incurred and the amount forecast in O&M expense. FortisBC explains that costs are currently forecast as part of the O&M formula, with variances included in the Earnings Sharing Mechanism (ESM). It submits that these costs are beyond its control and any variances in actual costs, either positive or negative, should not be subject to sharing.²⁴¹ FortisBC points out that the proposed treatment aligns with FEI's approved treatment for BCUC levies.²⁴² This variance deferral account is proposed to be amortized over one year, consistent with the FEI approved treatment.²⁴³
- **FAES overhead recoveries** – FortisBC states overhead recoveries from FortisBC Alternative Energy Services (“FAES”) have stabilized and FortisBC does not expect any material changes to FAES's business or its reliance on FEI over the term of the Proposed MRP. As a result, it proposed to make the adjustment to FEI's Base O&M to reflect the much lower FAES recoveries, without any need for deferral treatment.²⁴⁴
- **Biomethane pilot program interconnection costs** - FortisBC does not propose any changes to the Biomethane Variance Account (BVA) transfer mechanism²⁴⁵ but it requests a change to the regulatory treatment of the interconnection costs for the seven projects approved under the pilot program, which are currently recovered in delivery charges. FortisBC proposes that FEI account for these costs through the BVA, which would be consistent with the treatment of the costs of all other interconnections. FortisBC submits that given the approved BEREC rate methodology, there is no longer a need to keep the seven interconnections outside the BVA. FEI states that this is more efficient from an accounting efficiency perspective and will make the reporting of these costs simpler in FEI's filings with the BCUC, improving transparency since all biomethane-related costs will be included in the BVA.²⁴⁶

FEI states that as directed by the BCUC, it reviewed the BVA transfer mechanism and concludes the mechanism is operating as designed and is both simple and transparent. FEI's Annual Reviews provide information on all renewable natural gas program costs, recoveries and inventory activity, including a calculation of the BVA Rider each year. FortisBC submits there is no reason for a change to the BVA transfer mechanism at this time.²⁴⁷
- **MRP Incentives deferral account** - FEI and FBC each seek approval to establish a non-rate base MRP Incentives deferral account attracting WACC with additions being recovered or returned over one year to match costs and benefits. This account is proposed to capture the amounts determined through the

²⁴¹ Exhibit B-1, p. C-123.

²⁴² Order G-112-04.

²⁴³ Exhibit B-1, p. C-120.

²⁴⁴ FortisBC Final Argument, pp. 113-114.

²⁴⁵ The BVA transfer mechanism records all capital and operating costs for FEI's renewable natural gas program (RNG Program) in the BVA and the balance in the BVA is then recovered from biomethane customers through the Biomethane Energy Recover Charge (BERC). Any unrecovered BVA balance is transferred to the BVA Rider deferral account and recovered from non-bypass customers through the BVA rider (Exhibit B-1, p. C-112). See Exhibit B-12, BCUC IR 205.1 for a table showing the operating costs, annual capital expenditures, total BERC recoveries and BVA balance transfers from 2014 to 2019.

²⁴⁶ Exhibit B-1-1, Appendix B9, p. 5.

²⁴⁷ Ibid., pp. C-112–C-113; Exhibit B-1-1, Appendix B9, p. 1.

Earnings Sharing Mechanism (discussed in Subsection 3.2.9) and the targeted incentives (discussed in Section 6.0), except for the Power Supply Incentive.²⁴⁸

The MRP Incentives Account is proposed to capture the traditional incentive as 50 percent of the ROE variance between achieved (before targeted incentives) and allowed ROE. FortisBC proposes to make a final determination of the ROE for sharing after the year end, with any differences between the projected and actual amount included in the calculation of the earnings sharing for the following rate setting year. This amount will then be collected from customers through amortization in the next rate setting year.²⁴⁹

Position of Interveners

CEC

The CEC agrees with FEI that there should not be cost pressure to reduce integrity digs. It supports flow-through treatment and the removal of integrity digs from Base O&M²⁵⁰ as well as a flow through of power supply costs.²⁵¹ The CEC also agrees that it is reasonable to capture BCUC levies in a deferral account.²⁵²

The CEC disagrees with FortisBC's proposal to reallocate LNG funding between Base O&M and flow-through. The CEC submits that adding these costs to O&M Base places an unnecessary burden on ratepayers. The CEC also submits that allocating fixed LNG costs to an index-based formula that reflects inflation and customer growth is fundamentally incorrect in that only variable costs related to customer growth should be subject to customer growth. Furthermore, in the view of the CEC, if LNG sales increase, LNG customers should be increasingly funding in rates the O&M fixed and variable costs. The CEC argues that the Utility should be focused on increasing sales and the formula proposed has inappropriate incentives.²⁵³

The CEC offers a caution regarding controllable depreciation, interest and tax expenses. It questions whether these items are in fact 'controllable'. If not, then allowing them to be subject to the ESM could lead to windfall gains or losses for either ratepayers or the Utilities. Therefore, the CEC recommends that any earnings associated with these items should be reviewed at every Annual Review for justification as to why they should be included in the Earnings Sharing Mechanism and unless there are demonstrable reasons for why the variances were controlled by the Utility for the benefit of the ratepayer, they should be disallowed.²⁵⁴

BCSEA

BCSEA supports FEI's proposal that the interconnection costs for the seven interconnection facilities be accounted for in the BVA, consistent with all other interconnection costs.²⁵⁵ BCSEA is the only Intervener to comment on this issue. BCSEA also supports FortisBC's various requests for deferral accounts, stating that these deferral accounts are necessary to implement aspects of the Proposed MRPs.²⁵⁶

²⁴⁸ Ibid., pp. C-167–C-168.

²⁴⁹ Ibid., p. C-120.

²⁵⁰ CEC Final Argument, p. 56.

²⁵¹ Ibid., p. 57.

²⁵² Ibid., p. 85.

²⁵³ Ibid., pp. 15–16.

²⁵⁴ Ibid., p. 84.

²⁵⁵ BCSEA Final Argument, p. 17.

²⁵⁶ Ibid., p. 18.

ICG

ICG submits that FBC's treatment of regulatory costs as flow-through costs is contrary to the BCUC's decision on FBC's 2012-2013 Revenue Requirements and Review of 2012 Integrated System Plan, Order G-110-12, where the BCUC found that regulatory expenses are operating costs and should be absorbed into rates without deferral. ICG also submits that there "are probably no costs that are completely beyond the control of the company, including regulatory expenses, debt costs, property taxes and pension expenses."²⁵⁷

Further, ICG disagrees with ratepayers bearing cost variances that are beyond a utility's control. ICG also notes the "widespread use of deferral accounts under PBR mechanisms goes well beyond what is necessary to adjust future rates for the sharing of efficiency gains" and recommends that the BCUC should establish criteria for the use of deferral accounts, such use to be limited to cost variances that:

- arise from PBR mechanisms such as the O&M Base formula and the Base Capital formula;
- arise from Targeted Incentives, or
- are highly volatile and unpredictable.²⁵⁸

FortisBC Reply Argument

Regarding CEC's submission related to LNG O&M costs, FortisBC states that FEI's LNG rates are the subject of regulation. Further, all customers benefit from revenues from these sales.²⁵⁹

In response to ICG, FortisBC clarifies that FBC is not seeking approval of deferral accounts for regulatory costs in this proceeding and therefore ICG's submission should be rejected.²⁶⁰ Regarding ICG's comments on deferral accounts, FortisBC notes that the Proposed MRPs follow the approach used by the BCUC in the Current PBR Plans Decisions, which created the Flow-through deferral account. In any event, it proposes to reduce the scope of the Flow-through deferral account.²⁶¹ Finally, FortisBC says that ICG's proposed criteria for deferral accounts are unclear and incomplete²⁶² and ICG has not supported the need for a review of deferral accounts.²⁶³

Panel Determination

As explained in Subsection 1.2, in a multi-year performance-based framework, revenue and cost components that are not conducive to an index-based approach are often determined through a forecast approach similar to a traditional COS framework. Further, revenue and cost components outside the utility's control may also be handled through a deferral mechanism or be given flow-through or exogenous factor treatment.

The Panel notes that under the Current PBR Plans, many variances in forecast revenue requirement items are recorded in the Flow-through and other deferral accounts and are recovered from or returned to ratepayers in subsequent years. As FortisBC points out, this treatment provides certainty of cost recovery for the Utilities but

²⁵⁷ ICG Final Argument, p. 15.

²⁵⁸ *Ibid.*, pp. 16–18.

²⁵⁹ FortisBC Reply Argument, p. 65.

²⁶⁰ *Ibid.*, p. 55.

²⁶¹ *Ibid.*, p. 54.

²⁶² *Ibid.*, p. 55.

²⁶³ *Ibid.*, p. 56.

results in less incentive for cost reduction.²⁶⁴ The Panel agrees that if the multi-year performance-based plan is designed in a way that too many revenue requirement cost items are simply flowed through to customer rates, the incentive properties of the plan are diminished and the risks and rewards for all parties are reduced.

Accordingly, to consider FortisBC's proposed changes in treatment of revenue requirement items subject to deferral mechanisms, the Panel focuses on whether:

- the item is reasonably within the control of management; and
- there is a high degree of forecast uncertainty associated with the item.

If the item is reasonably controllable and forecastable then it should form part of the incentive feature of the multi-year performance-based framework. If the Utilities have limited control over the item or there is a high degree of forecast uncertainty, they should not bear the risk of forecast variances. In the latter case, establishment of some form of deferral mechanism is appropriate.

The Panel's approach is consistent with the BCUC's Regulatory Accounting Filing Checklist (Checklist)²⁶⁵ which among other things asks regulated entities applying for a regulatory account to comment on "whether, or to what extent, the item is outside of management's control" as well as the degree of forecast uncertainty associated with the item. In the Panel's view, consistency with the considerations outlined in this Checklist addresses the general concerns raised by ICG related to the criteria for deferral treatment of cost variances.

The Panel acknowledges that FortisBC applies a principle that uncontrollable costs should be flowed-through to rates and that its proposals include moving some flow-through revenue and cost items that are now stabilized and controllable into the incentive mechanisms of the Proposed MRPs. In the Panel's view, if there has been no significant change in the nature of the item, then the treatment in the Current PBR Plans remains appropriate.

Flow-through Deferral Account

Applying the Panel's approach outlined above, the determinations on FortisBC's specific requests are set out below. The Panel only addresses variance treatment of those revenue requirement items where changes are proposed for the Proposed MRPs. Where there is no change in approach from the Current PBR Plans and no objections were raised by interveners, the *status quo* treatment remains.

Changes to Flow-through Treatment

Subject to approval by the BCUC for inclusion of FBC's EV charging stations in rate base, the Panel approves FBC's request to forecast costs associated with EV charging stations and to record the related forecast cost of service variances in the Flow-through deferral account. The Panel also approves flow-through treatment for revenues related to EV Charging stations. While the cost of service associated with these charging stations may be somewhat controllable, these stations will generate new incremental tariff revenue and there is uncertainty associated with the amount of revenues and costs. Further, the proposed treatment is consistent with other clean growth initiatives that generate incremental revenues. The Panel notes that in Order G-9-18, FBC was already directed to separately track and account for all costs associated with the EV charging stations and

²⁶⁴ Exhibit B-1, p. B-46.

²⁶⁵ Retrieved from: https://www.bcuc.com/Documents/Guidelines/2017/05-03-2017_RegulatoryAccountFilingChecklist.pdf

exclude all such costs from its utility rate base until the BCUC directs otherwise. The Panel also notes that consistent with other revenue from Clean Growth Projects, FBC proposes revenues related to EV Charging stations will be flowed through under “Other recoveries.”²⁶⁶

The Panel approves FortisBC’s proposal for forecast variances in controllable depreciation, interest and tax expenses be subject to ESM rather than flow-through treatment. As discussed in the Panel’s determination on the ESM in Subsection 3.2.9, the proposal to share forecast variances in controllable depreciation, interest and income taxes is appropriate given the controllable nature of these items and provides further incentive to manage costs efficiently.

The Panel rejects the CEC’s recommended approach to the treatment of depreciation, interest and income taxes. As noted above, the Panel considers these costs to be reasonably controllable. Regarding the CEC’s comments related to windfall gains and losses for either ratepayers or the Utilities, the Panel notes that under the Current PBR Plans these variances have flow-through treatment subjecting ratepayers to 100 percent of the risk with little incentive for the utility to control the related costs.

The Panel approves FortisBC’s proposal for forecast variances related to certain controllable Other Revenue components to be subject to the ESM rather than flow-through treatment. These controllable Other Revenue items approved are listed in Table 20 above. The Panel accepts FortisBC’s assertion that these items are generally controllable. Therefore, including variances in forecast in the ESM will increase the incentive to control costs and find efficiencies and any resulting benefits will be shared with ratepayers.

Changes in Specific O&M Flow-through Items

The Panel approves FEI’s proposal to capture variances in integrity digs in the Flow-through Deferral Account. The Panel also agrees that costs associated with integrity digs are primarily outside of FEI’s control. FortisBC has demonstrated there can be considerable uncertainty related to scope, cost, timing and volume of expected digs during the Proposed MRP term. Given the safety purpose of these digs, the Panel agrees with the CEC that there should not be cost pressure to reduce integrity digs.

The Panel approves FEI’s proposal to move controllable LNG O&M costs to index-based O&M costs and to forecast the variable portion of LNG O&M cost and treat forecast variances as flow-through. The Panel agrees with FEI that revising the treatment of LNG O&M costs is appropriate given that some of these costs have stabilized and are largely within FEI’s control. FEI’s incremental increase of \$1.853 million in controllable LNG O&M requests is addressed in Subsection 4.1.1. The Panel agrees that the LNG O&M that is driven by the volume of LNG production should be treated as a flow-through, since production volumes are expected to increase over the next five years and there is considerable forecast uncertainty.

The Panel disagrees with the CEC’s objection to the inclusion of the controllable LNG O&M costs in index-based O&M since these costs are now stabilized and including them in the O&M formula adds to the incentive properties of the Proposed MRP Plans. The Panel disregards the CEC’s other comments related to LNG revenues as they relate to LNG rate design which as FortisBC point out is already subject to regulation by the BCUC.

²⁶⁶ Exhibit B-12, BCUC IR 204.3; FortisBC Final Argument, p. 93.

Other Flow-through Requests

The Panel does not approve flow-through treatment for incremental regulatory and policy driven costs, including new Mandatory Reliability Standards. The Panel notes that FortisBC intends to bring forward these items for further review by the BCUC before treating any variances as flow-through and that any incremental costs will be the result of future changes in government policy and regulation. In the Current PBR Plans, FortisBC has received approval for exogenous treatment of such items. In the Panel's view, continuing with exogenous factor treatment for costs associated with future policy changes will still allow the Utilities to recover costs that have been reviewed and approved by the BCUC, subject now to a reduced materiality threshold as determined in Subsection 3.2.7.

The Panel approves the continuation of the general Flow-through deferral account for the MRP term of 2020 through to 2024, subject to the adjustments and directives above. The Panel notes that the BCUC has previously approved a general PBR Flow-through deferral account to capture revenue and cost items where FortisBC did not already have an approved deferral mechanism or separate deferral account. Given the number of items included in this account, the Panel is concerned that there is a risk that such an approach may result in a lack of transparency and accountability. **Accordingly, the Panel directs FEI to provide a detailed analysis of the individual forecast variances recorded in the Flow-through deferral account in each Annual Review.**

Other Deferral Account Requests

The Panel approves the establishment of a BCUC Levies Forecast Variance deferral account for FBC, to capture the variance between the annual forecast and actual BCUC levies. The Panel also approves a one-year amortization of the balance of this account. The proposed treatment for FBC's BCUC levies is consistent with FEI's currently approved treatment and the costs are outside of FBC's control.

The Panel approves proposed changes in treatment of FAES overhead recoveries. This proposal is appropriate given that FEI's overhead recoveries from FAES have stabilized.

The Panel approves the continuation of the BVA transfer mechanism for RNG Program costs until the RNG Program and related BVA are otherwise amended by the BCUC. While BCSEA comments on this issue in final argument, the Panel finds there has been limited review of this topic in this proceeding as evidenced by the lack of IRs related to this topic. In other parts of this Decision, the Panel notes there are likely to be developments resulting from implementation of the Provincial Government's CleanBC Plan²⁶⁷ which may impact FEI's RNG program. The Panel also notes that FEI has stated that it will consider the need to change the BVA Balance Transfer mechanism after conducting its comprehensive assessment report to be filed with the BCUC by August 12, 2020.²⁶⁸ Given the pending filing of the assessment report and anticipated policy developments, the Panel declines to approve the continuation of the BVA transfer mechanism for the term of the Proposed MRPs. The Panel recommends the BCUC to conduct a further review of the RNG program upon receipt of this comprehensive report.

However, the Panel approves that interconnection costs for the seven projects approved under the RNG Pilot Program be accounted for in the BVA consistent with other interconnection costs. The Panel finds this

²⁶⁷ See Subsection 5.4.

²⁶⁸ Exhibit B-1-1, Appendix B9, p. 1

treatment is consistent with the treatment of the costs of all other interconnections and agrees with FEI that it aligns with the goals for efficiency and transparency. The Panel also notes that none of the interveners were opposed to this approach.

The Panel approves the establishment of a non-rate base MRP Incentives deferral account for FEI and FBC, attracting WACC, to capture the amounts determined through the ESM as approved by the Panel in Subsection 3.2.9 of the Decision. FortisBC is directed to make a final determination of the ROE for sharing after the year end, with any differences between the projected and actual amount included in the calculation of the earnings sharing for the following rate setting year. In Section 6.0 of the Decision, the Panel denies FortisBC's request for approval of the Targeted Incentives. Accordingly, this account will not be used to capture amounts that arise from Targeted Incentives.

3.2.9 Earnings Sharing Mechanism

FortisBC proposes a 50:50 ESM between customers and the Utilities for earnings above and below the allowed Return on Equity (ROE).²⁶⁹ FortisBC describes an ESM as a rate setting regulatory tool that is designed to enhance the alignment between ratepayer and utility interests and to share the risks and benefits of an incentive based plan. Further, an ESM mitigates against unintended results of a new plan, such as excessive utility gains or losses. An ESM is typically a backward-looking sharing mechanism in which a rate adjustment is provided if the actual earnings fall below or exceed a certain threshold.²⁷⁰

The Proposed MRPs include the continuation of an ESM mechanism. FortisBC explained that an ESM reduces the risk of windfall surpluses or losses for both Utilities and ratepayers, but it also reduces the strength of the plan's incentives. FortisBC noted the MRP plans in Alberta and some electric distributors in Ontario have no sharing mechanism, which translates to a higher risk and reward potential when compared with FEI's and FBC's Proposed MRPs.²⁷¹

In this Subsection, the Panel reviews the proposed ESM (Proposed ESM), including an overview of the Current PBR Plan ESM (Current ESM) and Capital Dead Band and an outline of the proposed ESM approach.

Current PBR Plan ESM and Capital Dead Band

The Current PBR Plan includes a 50:50 symmetric sharing of variances in formula O&M and for earnings on formula capital expenditures within a dead band.²⁷² FortisBC states that the BCUC determined that inclusion of a symmetric ESM would be beneficial to both the Utilities and ratepayers and balance their interests.²⁷³ FortisBC explains that under the Current PBR Plans, variances from approved formula capital expenditures within the capital dead band were excluded from rate base during the plan terms and the ROE related to these capital expenditures within the dead band was included in the Current ESM.²⁷⁴

²⁶⁹ Exhibit B-1, p. A-4.

²⁷⁰ Exhibit B-1, p. C-156.

²⁷¹ Exhibit B-10, BCUC IR 17.8.

²⁷² Exhibit B-1, p. B-25.

²⁷³ *Ibid.*, p. B-28.

²⁷⁴ *Ibid.*, p. B-28.

In the Current PBR Plan Decisions, the BCUC established both a one-year 10 percent capital dead band and a two-year 15 percent cumulative capital dead band related to index-based capital expenditures. Subsequently, in the FEI-FBC Capital Exclusion Criteria Decision,²⁷⁵ the BCUC directed that if the capital dead bands are exceeded, FortisBC should make a recommendation as to the amount of any adjustment to base capital in the Annual Review. In the Annual Reviews for 2017 to 2019, the BCUC approved²⁷⁶ FortisBC's requests to remove the amount of capital expenditures in excess of the dead band from the Current ESM. Instead these amounts were approved to be added to opening plant in service for determination of rates in the subsequent year. As a result of these decisions, the ROE on capital expenditures in excess of the dead band was not shared.

The BCUC raised concerns related to the treatment of capital expenditures in excess of the capital dead band. For example, in FEI 2018 Annual Review Decision, page 10, the BCUC stated:

However, the Panel acknowledges that the PBR Plan term is nearing the end and that any changes at this time to base capital resulting from re-basing would not take effect until the final year of the PBR Plan term. Thus, the Panel does not consider it appropriate to impose the additional regulatory process and costs which would be required for a re-basing hearing given the limited time remaining in the current PBR Plan term. While the Panel does consider there to be some merit to including the capital spending in excess of the dead-band as part of the 50/50 earnings sharing mechanism, as this would potentially serve to better maintain the incentive properties of the PBR Plan, the Panel acknowledges FEI's statement that this would result in a change to the overall PBR Plan design and that such a change is not within the scope of this annual review. [Emphasis added] Additionally, none of the interveners oppose FEI's proposed approach. Therefore, the Panel approves FEI's proposal to remove the amount of formula capital which has exceeded the cumulative dead-band from the earnings sharing calculation, and to add the amount of capital in excess of the dead-band to FEI's opening 2018 plant additions balance. [Emphasis in original]²⁷⁷

The FEI and FBC actual capital expenditures exceeding the capital dead band for the Current PBR Plan period, from 2014 through 2018, were as follows:

Table 21: FEI Adjustments to Earnings Sharing/Opening Plant Balance, Revenue Requirement and Bill Impact²⁷⁸

FEI (\$000)	2014	2015	2016	2017	2018	2019	Total
Year							
ESM Adjustment	-	-	(9,176)	(37,632)	(73,160)	-	(119,968)
Following Year							
Opening Rate Base Adjustment				9,176	37,632	73,160	119,968
Revenue Requirement	-	-	-	612	3,271	8,980	
Bill Impact	0.0%	0.0%	0.0%	0.1%	0.3%	0.7%	

²⁷⁵ Order G-120-15.

²⁷⁶ FortisBC's requests for FEI were approved for 2017, 2018 and 2019 by Orders G-182-16, G-196-17 and G-237-18, respectively. The requests for FBC were approved for 2018 and 2019 by Orders G-38-18 and G-246-18, respectively.

²⁷⁷ Order G-197-17, Appendix A, p. 10.

²⁷⁸ Exhibit B-10, BCUC IR 13.6.

Table 22: FBC Adjustments to Earnings Sharing/Opening Plant Balance, Revenue Requirement and Bill Impact²⁷⁹

FBC (\$'000)							
Year	2014	2015	2016	2017	2018	2019	Total
ESM Adjustment	-	-	-	(12,075)	(14,122)	-	(26,197)
Following Year							
Opening Rate Base							
Adjustment				-	12,075	14,122	26,197
Revenue Requirement	-	-	-	-	754	1,988	
Bill Impact	0.0%	0.0%	0.0%	0.0%	0.2%	0.5%	

In evaluating the success of the capital dead band, FortisBC states:

- The capital dead band mechanism mitigated the risks of FEI and FBC exceeding their formula-driven capital expenditures limits and would also have mitigated the risks to customers had capital expenditures fallen significantly below the formula-driven capital expenditure limits;
- The overall mechanism and the calculation methodology were not well understood by interveners and were a source of questions in Annual Review proceedings;
- The mechanism is no longer required in the Proposed MRPs given the proposal to forecast the majority of FEI's and all of FBC's capital expenditures; and
- There are other safeguard mechanisms that can provide sufficient protection to the Utilities and ratepayers.²⁸⁰

Proposed ESM

The Proposed ESM is calculated as a 50 percent sharing of the achieved ROE above or below the allowed ROE. FortisBC states this approach will incent FortisBC to contain:

- Annual index-based O&M expenditures to a level at or below that calculated under the gross O&M per customer amount; and
- Regular capital spending at the approved forecast level or, in the case of FEI's Growth capital, at or below the amount set through the index-based unit cost.

FortisBC explains its proposal is the same method proposed by FortisBC for its Current PBR Plans and approved in FEI's 2004-2009 PBR, in FBC's 2007-2011 PBR and in other Canadian jurisdictions.

FortisBC submits the return to this simplified ESM calculation is transparent, increases the simplicity of the MRP design and provides an incentive to implement capital plans efficiently.²⁸¹ To illustrate the ESM calculation, FortisBC explains it proposes that all revenue requirement variances are either:

- captured in the Flow-through deferral account;
- captured in another approved deferral account; or

²⁷⁹ Ibid.

²⁸⁰ Exhibit B-1, p. B-45.

²⁸¹ Ibid., p. C-157.

- fall to the bottom line and are subject to the ESM.²⁸²

FortisBC illustrates this calculation as follows:

Table 23: Example of ESM Calculation²⁸³

Line	Particulars	2022 Actual	Reference
1	Mid Year Rate Base	\$5,000,000	
2	Equity Ratio	40%	
3	Equity Component of Rate Base	\$2,000,000	Line 1 x Line 2
4			
5	Achieved ROE	10.00%	
6	Approved ROE	9.00%	
7	ROE Surplus (Deficit)	1.00%	Line 5 - Line 6
8			
9	After Tax Surplus for Sharing Purposes	\$ 20,000	Line 3 x Line 7
10	Customers' 50% Share of Surplus (net of tax)	\$ 10,000	Line 9 x 50%

The revenue requirement items that are not subject to deferral account treatment and therefore have an impact on the achieved ROE and the ESM calculation, are listed in the following table.

Table 24: Items Subject to Earnings Sharing²⁸⁴

FBC/FEI Items Subject to Earnings Sharing	Description
<u>Gross O&M:</u> Indexed based O&M variances	Variances in index-based O&M
<u>Depreciation:</u> Other depreciation variances	Variances in depreciation expense from Regular Capital (other than those driven by depreciation rate variances).
<u>Other Revenues:</u> All other revenue / income variances	Variances in other revenue not subject to a separate deferral account, such as connection fees, late payment fees, etc.
<u>Interest Expense:</u> Other interest variances	Variances in interest expense other than those driven by interest rate variances.
<u>Income Tax:</u> Other income tax variances	Variances in income tax expense other than those driven by income tax rate variances.

FortisBC considered the following in selecting items for the Proposed ESM:

- The proposed approach results in a more common and simplified ESM;
- Variances related capital spending flow to the bottom line, incenting the Utilities to become more efficient regarding capital spending and returns half of those efficiencies to ratepayers;
- Variances in uncontrollable costs to should continue to be subject to deferral account treatment; and
- Costs that drive incremental revenues to future revenue requirements, such as NGT, or costs related to Clean Growth, such as RNG, should be given flow-through treatment.²⁸⁵

²⁸² Exhibit B-2, p. 6.

²⁸³ Ibid., p. 2.

²⁸⁴ Ibid.

²⁸⁵ Exhibit B-10, BCUC IR 63.1.

In addition, as discussed in Subsection 3.2.8, FortisBC submits the risk of variances in controllable Other Revenue components should be subject to earnings sharing to increase the incentive to control costs and find efficiencies.²⁸⁶

Regarding the approach to capital, FortisBC states the proposed treatment of variances in formula and forecast capital expenditures is designed to encourage FortisBC to manage its capital expenditures below the amounts embedded in rates, as follows:

- If capital expenditures were treated as flow-through, FEI and FBC would have less incentive to pursue capital efficiencies as all benefits would immediately be returned to customers;
- Similarly, there would be no penalty to the Utilities for over-spending as the revenue requirements impacts would be fully recovered by way of a flow-through mechanism; and
- Further, if the sharing ratio were amended from 50/50 to 75/25 for the ratepayer/ Utilities this would reduce the incentive for FortisBC to manage its capital expenditures below the amounts embedded in rates.²⁸⁷

Like the Current PBR Plans, FortisBC proposes no true-up of rate base for differences in actual and forecast expenditures during the term of the Proposed MRPs. FortisBC explains that the main difference between the two plans is the treatment of variances in depreciation expense, interest expense and income tax expense. FortisBC proposes to let variances in these expenses be subject to earnings sharing and not be accounted for in the flow-through deferral account.²⁸⁸

FortisBC explains that depreciation expense for the MRP term will be calculated in each Annual Review filing based on the opening rate base, which includes the previous year's approved forecast Regular capital expenditures and the previous year's approved calculated formula Growth Capital expenditures for FEI. Depreciation expense amounts included in revenue requirements during the term of the MRPs will not be adjusted for any variances in actual capital expenditures from the approved forecast/formula.²⁸⁹

Regarding the Proposed ESM, FortisBC submits:

- While the BCUC in its Current PBR Plan Decisions referred to "gains or losses relative to the approved ROE," the decisions in fact muted this calculation by incorporating flow-through treatment of all depreciation, interest and tax related to capital expenditures, which reduced the scope of costs included in the ESM;
- Removing the capital dead band and the flow-through-treatment of depreciation result in a less complex ESM and increases its incentive properties;²⁹⁰
- Allowing capital related variances to flow to the bottom line incents the Utilities to become more efficient regarding capital spending and returns half of those efficiencies to customers,²⁹¹

²⁸⁶ FortisBC Final Argument, p. 93.

²⁸⁷ Exhibit B-10, BCUC IR 64.2.

²⁸⁸ Exhibit B-12, BCUC IR 166.9.

²⁸⁹ Ibid., BCUC IR 166.10.

²⁹⁰ FortisBC Final Argument, p. 83.

²⁹¹ Ibid., p. 82.

- Providing incentives to find capital efficiencies can result in a lower overall rate base exiting a multi-year plan and upon rebasing ratepayers receive the benefit of these long-lasting efficiencies for the remaining lives of the assets; and
- Subjecting Regular capital related depreciation, interest and tax expenses to earnings sharing will increase the risk and rewards equally for both ratepayers and shareholders.²⁹²

Positions of Interveners

BCSEA

BCSEA supports the proposed changes to the Current ESM. BCSEA submits the changes strengthen the efficiency incentive by including more costs in the ESM and simplify the calculation of the earnings sharing amount. BCSEA also supports the removal of the dead band.²⁹³

CEC and ICG

The CEC does not support the proposed changes to the Current ESM. The CEC agrees that the Proposed ESM is similar to the Current ESM but the proposed changes increase the scope of the calculation with more earnings being subject to sharing.²⁹⁴ The CEC submits that a 50:50 ESM is unfair to ratepayers because ratepayers pay 100 percent of the cost of any efficiency improvement and provide 50 percent of the benefits to the shareholder over a considerable period of time, making the payoff to the Utility shareholder for certain savings “extraordinarily non-cost effective.” The CEC submits that if there is any sharing, the benefit to the shareholder should be considerably lower than 50 percent.²⁹⁵ The CEC does however, agree that the capital dead band was a source of confusion in annual reviews and accepts the removal as being reasonable.²⁹⁶

Related to the ESM mechanism, as noted in the Panel’s review of the proposed approach to capital in Subsection 4.4, the CEC and ICG also submit that there should be a flow-through or true-up mechanism for forecast capital expenditures and the CEC expresses concerns related to the risk of underspending on capital.

FortisBC Reply Argument

FortisBC replies that reducing the ESM to less than 50:50 sharing as suggested by the CEC would significantly weaken the incentive properties of the Proposed MRPs and points out that the CEC is the only party to take issue with the Proposed ESM.²⁹⁷ FortisBC notes that under most MRPs, including Alberta, utilities typically retain 100 percent of savings. FortisBC submits this is like traditional COS regulation, where 100 percent of the variance from forecast is accountable to the shareholder.²⁹⁸

²⁹² FortisBC Final Argument, p. 84.

²⁹³ BCSEA Final Argument, p. 15.

²⁹⁴ CEC Final Argument, p. 58.

²⁹⁵ *Ibid.*, p. 59.

²⁹⁶ *Ibid.*, p. 51.

²⁹⁷ FortisBC Reply Argument, p. 50.

²⁹⁸ *Ibid.*

Panel Determination

The Panel approves the Proposed ESM for FEI and FBC resulting in a 50 percent sharing of the achieved ROE above or below the allowed ROE. In Subsection 3.2.8, the Panel approves the requested MRP Incentives deferral account to capture the amounts determined through the ESM.

With respect to the capital elements of the Proposed ESM, the Panel finds it appropriate to eliminate the dead band approach to capital expenditures in the Current ESM. The Proposed ESM results in a more simplified calculation. More importantly, the proposal captures all Regular capital expenditure related variances impacting ROE. The Panel agrees with BCSEA this improves the incentive properties of the MRPs.

In the Current PBR Plans, only the ROE impact of capital expenditure variances within the dead band was shared. Since the BCUC approved the addition of capital expenditures in excess of the dead band to rate base for the purpose of setting rates in the next period, the ROE on these expenditures was not shared. The total capital expenditures outside the dead band and excluded from the ESM in the Current PBR Plan from 2014 through 2018 were \$119,968,000 for FEI and \$26,197,000 for FBC. At the time of these approvals, the BCUC commented that there would have been some merit to including such capital expenditures in the ESM, as this would have potentially better maintained the incentive properties of the rate plan. The Panel agrees with this view.

As noted previously in this Decision, the Panel disagrees with the CEC and ICG that forecast capital expenditures should be subject to a flow-through or true-up mechanisms. Treating all forecast capital as flow-through would exclude these expenditures from the ESM and provides no incentive for the Utilities to be more efficient and effective. If the Utilities overspend compared to forecast or formula capital expenditures, as was the case in the Current PBR Plans, the absence of a true-up mechanism would mean that the ROE impacts related to any excess expenditures would be shared with ratepayers. Further, having an ESM in place means if FEI and FBC effectively manage capital projects and spend less than forecast Regular or formula FEI growth capital expenditures, the achieved ROE will exceed the allowed ROE built into rates and this amount will be shared with ratepayers. In this case, ratepayers share in the savings during the MRPs and given the remaining life of assets beyond the MRP term, after re-basing at the end of the MRP term, ratepayers will continue to benefit from these efficiencies.

Regarding the CEC's concerns that there is an incentive for underspending on capital rather than finding permanent efficiencies, the Panel finds there are sufficient other safeguards to address this risk. These safeguards include:

- Effectively designed SQIs;
- Reasonable capital forecasts and the design of the FEI Growth capital formula;
- The Panel's directive that FortisBC file an updated forecast of the 2023 to 2024 capital expenditures in the 2023 Annual Review; and
- The existence of financial off-ramps.

Further, the impact of this risk is reduced to 50 percent given the ESM whereas in a traditional COS framework, a utility can often keep 100 percent of the savings. The risk is also mitigated by the fact that the MRP term is typically less than the average remaining lives of the capital assets.

In Subsection 3.2.8, the Panel approves FortisBC's request for depreciation to be subject to the ESM given the controllable nature of these costs. In the Panel's view, the proposal to share depreciation variances provides further incentive to manage capital expenditures more efficiently, but the impact is potentially small given the average remaining lives of assets likely extend beyond the MRP term. The Panel notes the sharing of depreciation expense would have had a minimal impact under the Current PBR Plans²⁹⁹ and this was the case even though the Utilities significantly overspent capital in the Current PBR Plans.

In Subsection 3.2.8, the Panel also approves FortisBC's request for the inclusion of variances capital related interest and income tax and controllable other income in the ESM given the controllable nature of these items.

Regarding the O&M elements of the ESM, FortisBC does not propose changes to the sharing for controllable O&M savings compared to the Current PBR Plans.

The Panel acknowledges the CEC's view that the ESM sharing ratio should be less than the proposed continuation of 50:50 sharing. However, the Panel agrees with FortisBC that this would weaken the incentive properties of the Proposed MRPs. Consistent with the BCUC's view in the Current PBR Plan Decisions, the Panel finds that continuation of a 50:50 symmetric ESM is beneficial to both the Utilities and ratepayers and balances their interests. Further, FortisBC's proposal to increase the scope of the calculation to include the impact of more controllable items (i.e. those costs outside of approved deferral account treatment) adds to the incentive elements of the MRPs, resulting in potential benefits to both the Utilities and ratepayers.

3.2.10 Efficiency Carry-Over Mechanism

FortisBC proposes an ECM to strengthen the incentive properties of the Proposed MRPs. An ECM is a plan component that incentivizes a utility to pursue efficiency gains throughout the multi-year incentive rate plan by allowing the utility to continue to receive benefits for a period following the end of the plan for savings resulting from measures taken and costs incurred during the plan period. FortisBC notes that as the plan gets closer to its end, the amount of time remaining to achieve a return on efficiency investments becomes shorter, thereby reducing the incentive properties of the plan. Thus, the incentive properties of multi-year rate plans "are time-dependent and there is an incentive imbalance between later and earlier plan years." Having an ECM incents utilities to pursue and invest in efficiency initiatives over the entire plan period by allowing the utility to keep a share of performance gains for a set period after a rate plan is concluded.³⁰⁰

FortisBC applied for an ECM in the 2014-2019 PBR, but the BCUC rejected its proposed methodology. At that time the BCUC acknowledged there was some logic to providing incentives to continue the development of efficiencies in the plan's later years. However, it pointed out that the FortisBC proposal did not attempt to "separate those savings that are related to an actual initiative from those that result from simply not spending the funds or being unable to do so due to circumstances unforeseen by Fortis." In either case, the savings would carry on into the post PBR period. The BCUC stated that the risk for this was considerable and while an ECM might incent the development of efficiency initiatives further on in the PBR, it equally incents under-spending or gaming of the formula.³⁰¹

²⁹⁹ Exhibit B-12, BCUC IR 166.8, as set out in Table 1 and 2.

³⁰⁰ Exhibit B-1, p. C-11.

³⁰¹ FEI Current PBR Plan Decision, p. 132; FBC Current PBR Plan Decision, p. 128.

The BCUC did, however, approve a methodology to review specific requests to carry over efficiency-related benefits acknowledging “there will be instances where there are efficiency-related programs with associated costs which may remain unimplemented if an ECM did not exist.”³⁰² For each proposed initiative for which the benefits were expected to extend beyond the term of the Current PBR Plan terms, the Utilities could file an ECM proposal describing the initiative, its timing, costs and benefits, and reasoning as to why it is appropriate and how long benefits should be paid.³⁰³ FortisBC did not file any ECM proposals during the term of the 2014-2019 PBR, saying it found the case-by-case approach unworkable.³⁰⁴

For the Proposed MRP, FortisBC proposes an ECM based on the following methodology:

one half of the difference between the average ROE realized over the last two years of the proposed MRP and the simple average authorized ROE over the same period is added to the approved ROE for two years after the end of the proposed MRP term (providing the difference is positive).

FortisBC explains that this ROE adder would be capped at 50 basis points and would be applied to the mid-year rate base of the final year of the proposed MRP.³⁰⁵

FortisBC states that ECMs are not new and have been approved by regulators in other jurisdictions. An example of this is the AUC which approved an ECM that allows for an add-on to the approved ROE equal to one half of the difference between the simple average ROE achieved over the term of the plan and the simple average approved ROE over the same period (providing the difference is positive). This was held to a maximum of 0.5 percent for a two-year period following the end of the plan. FortisBC also describes a plan similar to an ECM that is covered under the OEB’s consolidation guidelines.³⁰⁶

FortisBC explains that its evaluation of the Utilities’ performance in the Current PBR Plans “indicates that annual savings above the formula level peaked in the third year of the plans.” FortisBC based its proposed approach to consider the performance in the last two years of the proposed MRPs on this observation stating that consideration of the last two years of the Proposed MRPs as opposed to the entire term improves “the balance of incentives between the earlier and later plan years.”³⁰⁷

BCOAPO filed evidence from its expert, Bell. He states that his concern with ECMs is they do “not reward a continuation of performance that has been ongoing but be (sic) based on truly new innovations that have occurred in the last two years of the plan.”³⁰⁸ In his view if an ECM is based on data from the last two years, the base for an achieved return should be that of the first three years. He explains that rewards would only be for additional efficiencies that exceed those in the first three years that would be subject to reward. Bell maintains that if the base is the allowed ROE, a potential for double counting exists as the utility is compensated for efficiencies found in the early PBR stages and then again in the ECM. If the third year ROE is established as a

³⁰² Ibid.

³⁰³ Ibid.

³⁰⁴ FortisBC Reply Argument, p. 52.

³⁰⁵ Exhibit B-1, p. C-12.

³⁰⁶ Exhibit B-1, pp. C-11–C-12.

³⁰⁷ Ibid., p. C-12

³⁰⁸ Exhibit C7-5, p. 13.

base, then this double counting is eliminated.³⁰⁹ Bell further elaborates that “to the extent that there are savings related to productivity gains that are implemented in the early years, these will be compounded with late measures. The utility has been fully compensated for efficiency gain [earlier in] the PBR term, and to include the impact in the ECM amounts to double counting.”³¹⁰

FortisBC rejects Bell’s position that the ECM should be based on truly new innovations occurring in the plans last two years as “baseless.” In its view, the proposed approach is reasonable and balanced as it excludes the first three years, halves the variance between achieved and approved ROE and has a 50-basis point cap. Further, FortisBC argues that the suggestion that double counting can be avoided by using the first three years as a base and relying on this to calculate the ECM is flawed as it assumes all of the savings from year one are carried over for five years.³¹¹

Positions of Interveners

BCSEA

BCSEA agrees there is a need for an ECM and states that FortisBC’s proposed ECM calculation “falls within the range of potential ways to calculate the ECM that would be balanced and reasonable.”³¹²

CEC

The CEC argues that with ECMs the benefits are presumed rather than actual, and the incentive payments should not be extended. Overall, it submits that the BCUC should not become involved with providing incentives and rewards where there is no accountability or demonstration of savings that are permanent. Without this accountability, the interveners and the BCUC are subject to the shareholder obtaining unwarranted rewards. The CEC recommends the Panel reject the ECM.³¹³

FortisBC Reply Argument

FortisBC notes that it has amended its ECM proposal from that which was rejected in the Current PBR Plan Decisions and has focused on the last two years of the plan. FortisBC reiterates that the incentive to find efficiencies decreases in the later years of an MRP and adding an ECM corrects this. It adds to this by stating that ECMs have been adopted in other jurisdictions and argues that this component has been effective in generating increased customer savings.

FortisBC notes that Bell’s evidence supports the use of an ECM, but it disagrees with his proposed approach. With respect to the CEC, FortisBC clarified what had been approved in the Current PBR Plan Decisions and noted that it found the case by case basis requirement to be unworkable. It states that it believes the root of its opposition lies in the CEC’s general opposition to incentive-based ratemaking.³¹⁴

³⁰⁹ Ibid.

³¹⁰ Exhibit C7-7, BCOAPO Response to CEC IR 7.1

³¹¹ FortisBC Final Argument, p. 87.

³¹² BCSEA Final Argument, p. 15.

³¹³ CEC Final Argument, p. 60.

³¹⁴ FortisBC Reply Argument, pp. 51–52.

Panel Determination

The Panel denies FortisBC's ECM proposal.

The Panel is not opposed to having an ECM but it must adequately balance the benefits between ratepayers and the Utilities. The ECM proposed by FortisBC fails to do this. The difficulty with FortisBC's ECM proposal is with the formula. Put simply, the formula calls for one-half the average positive ROE differential over the last two years of the MRP to be added to the achieved ROE for the two years following the MRP term. The Panel finds two significant problems implicit in this formula:

1. There is no certainty that the positive ROE differential (over the last two years) results from sustainable savings. If, in the last two years of the MRP, there are temporary non-sustainable savings contributing to an enhanced ROE, one-half of these savings will be carried over for a further two years. This could result in a positive ROE differential for the two years following the MRP with no offsetting savings to benefit ratepayers. The Panel notes that this creates an opportunity for gaming; and
2. There is a lack of certainty that any additional ROE earnings in the last two years of the MRP are the result of new actions or initiatives. It is very possible that some or all the ROE improvements are driven by actions or initiatives undertaken in the first three years. This would, in effect, potentially extend the benefits of an initiative or action taken earlier to up to seven years. The Panel notes that FortisBC in its evidence acknowledges that this potential exists; "Nonetheless, some of the efficiencies from the first three years will continue to be reflected in the achieved ROEs in the last two years."³¹⁵

The Panel acknowledges that under the FortisBC proposal only one-half of the ROE differential is to be added. However, this provides no certainty as to whether the impact on ROE is a result of actions taken much earlier in the Proposed MRP terms.

Given these issues, the Panel finds FortisBC's proposed ECM to be deficient in that it does not adequately balance the interests of ratepayers and the Utilities.

The Panel notes that Bell offered an alternative to the FortisBC proposed ECM which involved taking the third year ROE and then allowing only the amounts in excess of this in the next two years to qualify for ECM treatment. FortisBC retorts stating that this is flawed as it assumes that all of the savings from year one carry over to the fifth year. While the Panel believes that this mischaracterizes Bell's position, his logic is reasonable if impractical. Since Bell has established year three as a base, the model he is recommending would only work if all savings resulting in the year three ROE could be demonstrated to carry through to the end of the fifth year. This would be a difficult and onerous task and likely lead to significant additional process. The Panel therefore agrees with FortisBC and finds Bell's proposal to be flawed.

There is an ECM in place in the Current PBR Plans and the Panel has stated it is not opposed to an ECM as long as it balances the benefits between ratepayers and the Utilities. FortisBC has characterized the current ECM as being unworkable on a case by case basis. In the Current PBR Plan Decisions, the BCUC stated there is a need for an ECM but the "...mechanism must be transparent, flexible and allow a decision to be made on each initiative

³¹⁵ Exhibit B-5, BCOAPO IR 26.1.

based on its individual circumstances taking into account the benefits, the period of the benefits, costs and likelihood for success.”³¹⁶ The BCUC further stated that creating a formal process would provide greater transparency. This Panel has a similar point of view and given the problems with other alternatives, consider a review process to be necessary and warranted. **Therefore, the Panel determines the following process for the handling of an ECM application:**

- 1. An ECM can be applied for at any time in the last three years of the MRPs, either in advance or following the action or initiative being undertaken**
- 2. For proposed activities where identifiable savings are expected to extend beyond the term of the MRP, FortisBC is to file an ECM proposal describing the initiative, its timing, costs and benefits and savings.**
- 3. Parties will have the opportunity to review and comment on the proposal and the BCUC will determine whether to approve the ECM proposal (an Approved ECM Initiative).**
- 4. FortisBC must submit details of continued savings annually under an Approved ECM Initiative as part of the Annual Review process. The net savings will be shared equally between ratepayers and the Utilities and will carry forward past the end of the MRP for a maximum period of three years.**

3.3 Service Quality Indicators

Background

Service Quality Indicators (SQIs) are metrics measuring a utility’s quality of service and represent a broad range of business processes that are important elements to the customer experience. FortisBC explains that SQIs are used to monitor the Utilities’ performance to ensure that any efficiencies and cost reductions do not result in a degradation of the quality of service to customers”.³¹⁷

The BCUC noted during the proceeding leading to approval of the Current PBR Plans that FortisBC’s proposal for managing SQIs was too vague and lacked consequences; it concluded that consequences should be tied to a failure to achieve reasonable performance on defined SQIs. The BCUC found that a balanced set of SQIs should cover reliability, responsiveness to customer needs and safety, and used those three categories to evaluate and approve FortisBC’s SQIs for the Current PBR Plans. In addition, the BCUC determined that failure to meet an SQI could result in a penalty where the BCUC may reduce the share of earnings above the allowed rate of return that would otherwise flow to the Utilities. In such instance, the maximum reduction to incentive earnings could result in a 60 percent ESM share to the customer rather than the standard 50 percent.³¹⁸

The BCUC also directed the Utilities to consult with stakeholders and develop a performance range for each SQI covering the range of scores where performance would be found to be satisfactory. The result of the stakeholder consultation was a Consensus Recommendation on SQIs, which described each SQI including the indicator, benchmark and threshold levels and provided guidelines and criteria for determining financial consequences. In general, a threshold is the minimum performance required, and failure to meet a threshold could result in penalties being assessed during the Annual Review proceedings. A benchmark is considered a

³¹⁶ FEI Current PBR Plan Decision, p. 132; FBC Current PBR Plan Decision, p. 128.

³¹⁷ Exhibit B-1, p. C-147.

³¹⁸ FEI Current PBR Plan Decision, pp. 138, 147–148, 155-156; FBC Current PBR Plan Decision, pp. 133–134, 143, 150-151.

target, based on industry standard or best practice, and there is no penalty if it is not achieved. The BCUC approved the Consensus Recommendation in February 2015.³¹⁹ FortisBC confirms that it is proposing no changes to the existing approved process for interpreting metric performance where one or more of the Utilities SQIs do not meet the benchmark and falls outside of the threshold.³²⁰

In the following sections, the Panel reviews how the SQIs operated under the Current PBR, as evaluated during the Annual Review process. The Panel then discusses the SQIs that FortisBC proposes for the MRP addressing submissions from both the Utilities and interveners.

SQI Performance under PBR

FEI's states its performance on all nine SQIs was better than benchmark in almost all years and better than the threshold in all years. For the four informational SQIs, FEI's performance was consistent with prior years.³²¹ The BCUC confirmed FEI's assessment and found that FEI had either maintained or increased its level of service quality as measured by the SQIs.³²²

As outlined in Table 25, three of FBC's SQIs fell below the threshold during the Current PBR; All Injury Frequency Rate (AIFR), Telephone Service factor (TSF) in 2014 and System Average Interruption Duration Index in 2017 and 2018. This led to further scrutiny in the Annual Review process.

Table 25: FBC Historical SQI Performance, Benchmark and Threshold Levels³²³

Indicators with Benchmarks and Thresholds		Current		Proposed		2014 Results	2015 Results	2016 Results	2017 Results	2018 Results
		Benchmark	Threshold	Benchmark	Threshold					
Safety	Emergency Response Time - Calls responded to within two hours	>= 93%	90.6%	>=93%	90.6%	91%	92%	97%	93%	94%
Safety	All Injury Frequency Rate	<=1.64	2.39	<=1.64	2.39	2.58	2.52	1.97	1.27	1.28
Responsiveness to Customer Needs	First Contact Resolution	>= 78%	72%	>=78%	74%	73%	76%	79%	80%	82%
Responsiveness to Customer Needs	Billing Index	<= 5	<=5	<=3	5	2.34	0.39	0.57	0.15	0.29
Responsiveness to Customer Needs	Meter Reading Accuracy - Number of scheduled meter reads that were read	>= 97%	94%	>=98%	95%	98%	96%	99%	99%	99%
Responsiveness to Customer Needs	Telephone Service Factor - Calls answered in 30 seconds or less	>= 70%	68%	>=70%	68%	48%	71%	70%	70%	72%
Reliability	System Average Interruption Duration Index - Normalized	<= 2.22	2.62	TBD	TBD	2.09	2.15	2.18	2.76	3.10
Reliability	System Average Interruption Frequency Index - Normalized	<= 1.64	2.50	TBD	TBD	1.39	1.49	1.51	1.56	1.62
Informational Indicators										
Responsiveness to Customer Needs	Customer Satisfaction Index	n/a	n/a	n/a	n/a	8.1	8.1	8.2	8.2	8.3
Responsiveness to Customer Needs	Average Speed of Answer in seconds (replaces Telephone Abandonment Rate)	n/a	n/a	n/a	n/a	225.78	49.07	48.48	48.71	48.64
Reliability	Generator Forced Outage Rate	n/a	n/a	n/a	n/a	1.7%	0.1%	0.8%	0.6%	0.4%
Reliability	Interconnection Utilization	n/a	n/a	n/a	n/a	99.99%	99.94%	99.99%	99.95%	99.96%
Eliminated	Telephone Abandonment Rate (replaced by Average Speed of Answer)	n/a	n/a	n/a	n/a	12.4%	2.7%	3.9%	4.7%	5.3%

³¹⁹ FEI Current PBR Plan Decision, p. 155; FBC Current PBR Plan Decision, p. 150; Exhibit B-1-1, Appendix C5-1, p. 2.

³²⁰ Exhibit B-10, BCUC IR 90.8.

³²¹ Order G-237-18, Appendix A, p. 12.

³²² Ibid., p. 14.

³²³ Exhibit B-10, BCUC IR 90.7.

In 2014 and 2015 the AIFR which measures lost time due to injuries was well above the threshold. FBC reported in the 2016 Annual Review that it was taking action with a comprehensive review of its Safety Management System and a plan to introduce the Target Zero program to enhance the programs and activities already in place. The BCUC examined whether the AIFR results were indicative of a serious degradation of service. It found that the evidence was insufficient to make a finding and directed FBC to file its 2015 actual AIFR results as soon as they were available.³²⁴ This issue was subsequently addressed in the 2017 Annual Review when FortisBC submitted AIFR results that it said supported the conclusion that the two consecutive years of higher AIFR results were anomalous.³²⁵

System Average Interruption Duration Index (SAIDI) was a second SQI where metrics exceeded the threshold in multiple years (2017 and 2018). This measures the amount of time the average customer's power is off during the year.³²⁶ FBC explained that the reasons for the poor performance was the different method for data-tracking of its newly implemented Outage Management System (OMS) and wildfires in 2017 and adverse weather (e.g. large snowstorms) in 2018.³²⁷ The BCUC found no evidence to suggest a serious degradation of service and declined to impose a penalty, although it encouraged FBC to incorporate the impact of the OMS in setting a future benchmark for SAIDI.³²⁸

FBC also failed to meet the threshold for the Telephone Service Factor (TSF) (calls answered in 30 seconds or less) in 2014. After discussion among the parties in the 2015 Annual Review the BCUC concluded there was insufficient evidence to support a finding of serious degradation of service in 2014 and declined to impose a penalty.³²⁹

In addition to these SQIs Telephone Abandon Rate (an informational SQI measuring the number of non-emergency calls answered within 30 seconds) came under review due to deteriorating results. The BCUC found that the reasons for the decline in performance were inconclusive, but accepted FBC's submission that average customer wait times were less than a minute and customer satisfaction remained high.³³⁰

Proposed SQIs for 2020 to 2024

FortisBC submits that the current suite of SQIs for FEI and FBC have been useful in monitoring the Utilities' performance and it proposes to continue this approach. It also proposes to continue to report each year's results to the BCUC and stakeholders at the Annual Review where the consequences of a failure to meet SQI benchmark thresholds can also be considered.³³¹

For the Proposed MRPs, FortisBC reviewed the current SQIs for their continued appropriateness in measuring service quality and for the level of the benchmarks and thresholds for each metric.³³² Based on this review, and as discussed in the following sections, FEI and FBC propose modifications to certain of the existing SQIs. In

³²⁴ Order G-44-16, Appendix A, p. 3.

³²⁵ FBC Annual Review for 2017 Rates (2017 Annual Review), Exhibit B-2, p. 106.

³²⁶ Order G-246-18, Appendix A, p. 16.

³²⁷ Ibid.

³²⁸ Ibid., p. 17.

³²⁹ Order G-107-15, Appendix A, p. 20.

³³⁰ Order G-38-18, Appendix A, p. 20.

³³¹ Exhibit B-1, p. C-147.

³³² Exhibit B-1-1, Appendix C5-1.

addition, FEI and FBC propose to replace one informational indicator with a new informational SQI and FBC also proposes a new informational SQI.

Proposed SQIs for FEI

FEI submits that the SQIs in the Current PBR remain appropriate to ensure that service quality to its customers is maintained throughout the term of the Proposed MRP. FEI proposes to change the benchmarks and thresholds of some SQIs because of recent performance and replace one informational indicator with a new one. The proposed changes are shaded in Table 26.

Table 26: Comparison of FEI Current and Proposed SQIs³³³

Indicators with Benchmarks and Thresholds			Current		Proposed	
			Benchmark	Threshold	Benchmark	Threshold
Annual results	Safety	Emergency Response Time - Calls responded to within one hour	>= 97.7%	96.2%	>=97.7%	96.2%
Annual results	Safety	Telephone Service Factor (Emergency) - Calls answered in 30 seconds or less	>= 95%	92.8%	>=95%	92.8%
3 Year rolling average	Safety	All Injury Frequency Rate	<= 2.08	2.95	<= 2.08	2.95
Annual results	Safety	Public Contacts with Gas Lines	<= 16	16	<=8	12
Annual results	Responsiveness to Customer Needs	First Contact Resolution	>= 78%	74%	>=78%	74%
Annual results	Responsiveness to Customer Needs	Billing Index	<= 5	<=5	<=3	5
Annual results	Responsiveness to Customer Needs	Meter Reading Accuracy - Number of scheduled meter reads that were read	>= 95%	92%	>=95%	92%
Annual results	Responsiveness to Customer Needs	Telephone Service Factor (Non Emergency) - Calls answered in 30 seconds or less	>= 70%	68%	>=70%	68%
Annual results	Responsiveness to Customer Needs	Meter Exchange Appointment Activity	>=95%	93.8%	>=95%	93.8%
Informational Indicators						
Annual results	Responsiveness to Customer Needs	Customer Satisfaction Index	n/a	n/a	n/a	n/a
Annual results	Responsiveness to Customer Needs	Average Speed of Answer (replaces Telephone Abandonment Rate)	n/a	n/a	n/a	n/a
Annual results	Reliability	Transmission Reportable Incidents	n/a	n/a	n/a	n/a
Annual results and 5 Year rolling average	Reliability	Leaks per KM of Distribution System Mains	n/a	n/a	n/a	n/a

FEI provides the following explanations for those SQIs that it proposes to change:

- Public Contacts with Gas Lines reflect the number of line damages per 1,000 BC One Calls received.³³⁴ FEI proposes four changes to this SQI: (1) replace the word ‘pipelines with ‘gas lines’; (2) report results for a current year, which is easier to understand, instead of a three-year rolling average; (3) lower the benchmark from 16 to 8 because of improved performance, and (4) lower the threshold to 12 to reflect improved performance.³³⁵

³³³ Exhibit B-1, Table A1-6, p. A-13.

³³⁴ Exhibit B-1-1, Appendix C5-1, p. 8.

³³⁵ Exhibit B-1, p. C-149.

- The Billing Index tracks the effectiveness of the Company’s billing processes by measuring the percentage of customer bills produced that meet performance criteria.³³⁶ FEI says it has achieved efficiencies in billing procedures and therefore proposes lowering the benchmark from 5.0 to 3.0³³⁷
- FEI proposes to replace the Telephone Abandonment Rate (TAR) with a new informational indicator, Average Speed of Answer (ASA).³³⁸ FEI states that the ASA is more directly related to the customer experience because shorter wait times are preferable to longer ones.³³⁹ FortisBC states that abandon rates can be due to waiting times, or customers may opt out and use the Interactive Voice Response (IVR) system to access required information.³⁴⁰
- GHG Emissions are not an approved SQI but have been reported as part of the Annual Review process.³⁴¹ FEI proposes to discontinue this practice explaining that the requirement to report total GHG emissions is the result of a BCUC directive.³⁴² FEI states that it does not believe that it is a meaningful measure to focus on as an SQI. FEI points out that its annual Sustainability Report includes GHG emissions information and “provides added context to GHG emissions figures and is therefore a more suitable format for reporting GHG emissions.”³⁴³

Proposed SQIs for FBC

FBC reviewed the Current PBR SQIs and believes they remain appropriate to ensure that service quality to its customers is maintained throughout the term of the Proposed MRP. FBC’s proposed changes are shaded in Table 27.

³³⁶ Exhibit B-1-1, Appendix C5-1, p. 10.

³³⁷ Exhibit B-1, p. C-149.

³³⁸ Ibid., p. C-147.

³³⁹ Exhibit B-1, p. C-150.

³⁴⁰ Exhibit B-1, p. C-150; Exhibit B-1-1, Appendix C5-2, p. 11.

³⁴¹ Exhibit B-1, pp. C-150–C-151.

³⁴² FortisBC Final Argument, p. 209.

³⁴³ Exhibit B-1, p. C-151.

Table 27: Comparison of FBC Current and Proposed SQIs³⁴⁴

Indicators with Benchmarks and Thresholds			Current		Proposed	
			Benchmark	Threshold	Benchmark	Threshold
Annual	Safety	Emergency Response Time - Calls responded to within two hours	>= 93%	90.6%	>=93%	90.6%
3 Year	Safety	All Injury Frequency Rate	<=1.64	2.39	<=1.64	2.39
Annual	Responsiveness to Customer Needs	First Contact Resolution	>= 78%	72%	>=78%	74%
Annual	Responsiveness to Customer Needs	Billing Index	<= 5	<=5	<=3	5
Annual	Responsiveness to Customer Needs	Meter Reading Accuracy - Number of scheduled meter reads that were read	>= 97%	94%	>=98%	95%
Annual	Responsiveness to Customer Needs	Telephone Service Factor - Calls answered in 30 seconds or less	>= 70%	68%	>=70%	68%
Annual	Reliability	System Average Interruption Duration Index - Normalized	<= 2.22	2.62	TBD	TBD
Annual	Reliability	System Average Interruption Frequency Index - Normalized	<= 1.64	2.50	TBD	TBD
Informational Indicators						
Annual results	Responsiveness to Customer Needs	Customer Satisfaction Index	n/a	n/a	n/a	n/a
Annual results	Responsiveness to Customer Needs	Average Speed of Answer (replaces Telephone Abandonment Rate)	n/a	n/a	n/a	n/a
Annual results	Reliability	Generator Forced Outage Rate	n/a	n/a	n/a	n/a
Annual results	Reliability	Interconnection Utilization	n/a	n/a	n/a	n/a

FBC provides the following explanations for those SQIs that it proposes to change:

- First Contact Resolution measures the percentage of customers who receive resolution of their issue in one contact with FBC and is described as the single most important driver of customer satisfaction.³⁴⁵ FBC proposes to increase the threshold from 72 percent to 74 percent to more closely align with past performance.³⁴⁶
- Similar to FEI, FBC states it has achieved efficiencies in billing procedures and therefore proposes to lower the benchmark for the Billing Index from 5 to 3.³⁴⁷
- With regards to Meter Reading Accuracy, FBC because of improved performance proposes to increase both the benchmark (from 97 percent to 98 percent) and threshold (from 94 percent to 95 percent)³⁴⁸
- For the same reasons as those outlined for FEI, FBC proposes ASI to replace TAR as an informational indicator.³⁴⁹
- The SAIDI and System Average Interruption Frequency Index (SAIFI) are measures of system reliability.³⁵⁰ FBC explains that the existing SAIDI and SAIFI benchmarks and thresholds are no longer appropriate due

³⁴⁴ Ibid., Table A1-7, p. A-15.

³⁴⁵ Exhibit B-1-1, Appendix C5-2, p. 7.

³⁴⁶ Exhibit B-1, pp. C-151.

³⁴⁷ Ibid., p. C-152.

³⁴⁸ Ibid.

³⁴⁹ Ibid., pp. C-152–C-153.

³⁵⁰ Ibid., Appendix C5-2, pp. 12, 14.

- to the introduction in 2017 of an outage management system (OMS), which uses different data tracking. FBC proposes the following with respect to SAIDI and SAIFI:
 - FBC will propose new benchmarks and thresholds once the 2019 results are available.
 - FBC proposes to report results annually instead of on a three-year rolling average.³⁵¹
- Interconnection Utilization is a new SQI to respond to concerns raised by BCMEU that the existing SQIs did not address wholesale/municipal customers' concerns. It measures the time that an interconnection point was available and providing electrical service to municipal wholesale customers.³⁵²

Positions of Interveners

Many of the SQI changes proposed by FortisBC for FEI and FBC were not opposed by interveners. Concerns raised by interveners are summarized as follows:

Safety SQIs

i. All Injury Frequency Rate (AIFR)

BCOAPO submits that this SQI should be revised for FEI³⁵³ pointing out that both the three-year rolling average AIFR and the annual AIFR in 2017 and 2018 were below the current benchmark of 2.08 (see Table 28). In its view FEI should have a more aggressive target for such an important and core value as safety and suggests a benchmark of 1.9 for AIFR would be appropriate along with a reduction in the threshold from 2.95 to 2.77.³⁵⁴

Table 28: Results during the Current PBR Plan for AIFR (FEI)³⁵⁵

Description	2014	2015	2016	2017	2018	Benchmark		Threshold	
						Current	Proposed	Current	Proposed
AIFR – three year rolling average	2.22	2.42	2.13	2.00	1.74	2.08	2.08	2.95	2.95
AIFR – annual	1.73	2.52	2.13	1.36	1.74	n/a	n/a	n/a	n/a

BCOAPO submits that the threshold for this SQI should be revised for FBC as well and set at 2.0 instead of 2.39.³⁵⁶

³⁵¹ Exhibit B-1, p. C-153.

³⁵² Ibid.

³⁵³ BCOAPO Final Argument, p. 35.

³⁵⁴ Ibid.

³⁵⁵ Exhibit B-1-1, Appendix C5-1, p. 7.

³⁵⁶ BCOAPO Final Argument. p. 30.

Table 29: Results during the Current PBR Plan for AIFR (FBC)³⁵⁷

Description	2014	2015	2016	2017	2018	Benchmark		Threshold	
						Current	Proposed	Current	Proposed
AIFR – three year rolling average	2.58	2.52	1.97	1.27	1.28	1.64	1.64	2.39	2.39
AIFR – annual	3.21	1.54	1.15	1.13	1.52	n/a	n/a	n/a	n/a

Responsiveness to Customer Needs SQIs

i. Billing Index

BCOAPO questions why the Utilities cannot perform even better than they propose. For example, BCOAPO suggests that based on results from PBR, “it would be reasonable for customers in both utilities to “expect” a Bill Index performance of less than 1.5 and a threshold value of no more than 3.0.³⁵⁸

ii. Meter Reading Accuracy

Intervenors support FBC’s decision to increase the threshold and benchmark, with the exception of BCOAPO, which submits that FBC should increase the threshold even further, to 96 percent, because that was the lowest value experienced during the 2014-2018 period.³⁵⁹

Reliability SQIs

i. SAIDI and SAIFI

BCSEA agrees that FBC should continue to normalize its SAIDI and SAIFI results in accordance with the Institute of Electrical and Electronics Engineers’ (IEEE) methods, and adds that it would be helpful for FBC to address “major events” in conjunction with the SAIDI and SAIFI results in the Annual Review.³⁶⁰

ICG states that SQIs related to reliability are not sufficiently sensitive to detect changes in operating conditions.³⁶¹

ICG disagrees with FBC’s proposal to base the benchmark for SAIDI and SAIFI on the 2017 to 2019 actual results for the entire MRP period, because it will not reflect the substantial capital investment in infrastructure that FBC proposes (a 30 percent increase in capital spending). ICG argues that FBC should instead calculate the benchmark on a three-year historical rolling average for both SAIDI and SAIFI.³⁶²

ii. Interconnection Utilization

BCMEU supports this SQI although it disagrees with FBC that this should be an informational SQI because of the limited consequence if there is degradation.³⁶³

³⁵⁷ Exhibit B1-1, Appendix C5-2, p. 6.

³⁵⁸ BCOAPO Final Argument p. 32.

³⁵⁹ Ibid.

³⁶⁰ BCSEA Final Argument, p. 34.

³⁶¹ ICG Final Argument, p. 14.

³⁶² Ibid., p. 14.

³⁶³ BCMEU Final Argument, p. 10.

iii. GHG Emissions Reporting

BCSEA states that it is strongly opposed to FEI discontinuing reporting GHG emissions. The purpose of annual reporting as part of the MRP is to ensure that any achieved cost savings are not at the expense of reduced service quality and is different than the purpose of reporting to the provincial government. The fact that FEI also reports GHG emissions pursuant to legislated requirements does not obviate the need for reporting during the Annual Review process. BCSEA argues that the fact that GHG emissions are reported in an annual Sustainability Report is not a valid reason for eliminating the directive to report GHG emissions at the Annual Reviews.³⁶⁴

The CEC does not object to FEI's proposal to discontinue reporting total GHG emissions, provided the Sustainability Report is available each year.³⁶⁵

FortisBC Reply Argument

AIFR

With reference to setting more aggressive targets for AIFR, FortisBC acknowledges that the Utilities' performance has improved. However, it is still assessing the trend and the sustainability of these improvements and it is too early to conclude that FortisBC will be able to reasonably maintain the recent improvements in AIFR. The results need to be monitored on a longer term and trend basis before the threshold and benchmark values are adjusted.³⁶⁶

Billing Index

In response to BCOAPO's comments on the Billing Index, FBC states that the proposed levels reflect a high level of service quality overall with a benchmark of 3 equating to 97 percent of bills delivered within two days to Canada Post, 97 percent of customers billed within two business days of the scheduled billing date, and 99.95 percent of bills completed accurately. Further, more aggressive values typically incur higher costs.³⁶⁷

Meter Reading Accuracy

In reply to BCOAPO's suggestion on the Meter Reading Accuracy SQI to increase the threshold to 96 percent, FortisBC disagrees with the logic that the lowest value achieved under PBR should be used for the threshold.³⁶⁸

SAIDI and SAIFI

Concerning ICG's comments regarding the sensitivity to performance changes FortisBC points out that SAIDI and SAIFI are industry standard reliability indicators and there has been no feedback that they were not useful. FBC also states that ICG's proposal that the benchmark be calculated as the three-year rolling average is not logical. This is because having a benchmark based on a rolling three-year average of actual results going forward would be contrary to the purpose of monitoring SQIs and if FBC's performance decreased so too would the benchmark service level.³⁶⁹

³⁶⁴ BCSEA Final Argument, pp. 30–32.

³⁶⁵ CEC Final Argument, p. 64.

³⁶⁶ FortisBC Reply Argument, p. 88.

³⁶⁷ *Ibid.*, p. 88.

³⁶⁸ *Ibid.*, p. 89.

³⁶⁹ *Ibid.*, p. 90.

FBC states that it is amenable to including a discussion of major events in future Annual Review materials.³⁷⁰

Interconnection Utilization

In reply to BCMEU's comments on the proposed Interconnection Utilization SQI, FBC replies that it is appropriate as informational only because the SAIDI and SAIFI SQIs reflect the reliability of the FBC system as a whole, and because the Interconnection Utilization is largely impacted by factors outside of FBCs control.³⁷¹

GHG Emissions

In reply to the GHG Emissions reporting, FEI states that it is not necessary to file the Sustainability Report with the Annual Review materials because the information is all publicly available, and that it expects that parties could ask questions on it during the Annual Review proceeding.³⁷²

Panel Determination

Selecting and setting appropriate thresholds and benchmarks for each of the SQIs is integral to the success of MRPs from the perspective of both the Utilities as well as ratepayers. Performance expectations that are too high could lead to unfair adverse financial consequences for the Utilities with little incremental material value for ratepayers. Performance ranges that are too low undermine the linkage between incentives and the provision of safe, reliable and adequate customer service. Therefore, in setting the ranges for the Proposed MRPs it is important these two extremes are considered in a balanced manner to arrive at SQIs and performance measures that will maintain a high level of service yet not overly burden the Utilities with unnecessary costs.

With these considerations in mind, the Panel approves the SQIs and related benchmarks and thresholds for the Proposed MRPs as outlined in Table 30.

³⁷⁰ Ibid.

³⁷¹ Ibid., p. 220.

³⁷² Ibid., p. 57.

Table 30: Approved SQIs

Performance Measure	FEI Indicator	FEI Benchmark	FEI Threshold	FBC Indicator	FBC Benchmark	FBC Threshold
Safety SQI's						
Emergency Response Time	Percent of calls responded to within one hour	>=97.7%	96.2%	Percent of calls responded to within two hours	>=93%	90.6%
Telephone Service Factor (Emergency)	Percent of emergency calls answered within 30 second or less	>=95%	92.8%	N/A	N/A	N/A
AIFR	3 year average of lost time injuries plus medical treatment injuries per 200,000 hours worked	<=2.08	2.95	3 year average of lost time injuries plus medical treatment injuries per 200,000 hours worked	<=1.64	2.39
Public contacts with gas lines	Current year average of number of line damages per 1,000 BC One calls received	<=8	12	N/A	N/A	N/A
Responsiveness of Customer Needs SQIs						
First Contact Resolution	Percent of customers who achieved call resolution in one call	>=78%	74%	Percent of customers who achieved call resolution in one call	>=78%	74%
Billing Index	Measure of customer bills produced meeting performance criteria	<=3	5	Measure of customer bills produced meeting performance criteria	<=3	5
Meter Reading Accuracy	Number of scheduled meters that were read	>=95%	92%	Number of scheduled meters that were read	>=98%	96%
Telephone Service Factor (NonEmergency)	Percent of non-emergency calls answered within 30 seconds or less	>=70%	68%	Percent of calls answered within 30 seconds or less	>=70%	68%
Meter Exchange Appointment	Percent of appointments met for meter exchanges	>=95%	93.8%	N/A	N/A	N/A
Reliability SQIs						
SAIDI - Normalized	N/A	N/A	N/A	Current year amount of time the average customer's power is off	TBD	TBD
SAIFI - Normalized	N/A	N/A	N/A	Current year average number of interruptions per customer served per year	TBD	TBD

A summary of the Panel’s reasoning for each SQI follows:

Safety SQIs

- i. All Injury Frequency Rate (AIFR)

The Panel recognizes the positive AIFR performance over the last two years but accepts that FortisBC may be reluctant, without more data, to commit to more challenging benchmarks and thresholds for FEI and FBC. There may be some merit to BCOAPO’s argument that the existing benchmarks and thresholds could be more aggressive, but we are not persuaded that two years of results are sufficient information on which to base new metrics. Therefore, the Panel finds that the AIFR SQIs proposed for FEI and FBC are appropriate.

ii. Public Contact with Gas Lines

The Panel finds that the proposed changes to FEI's Public Contact with Gas Lines SQI are reasonable and notes that none of the interveners objected to any of the proposed changes.

Responsiveness to Customer Needs SQIs

i. First Contact Resolution

The Panel noting that none of the interveners disagreed with the proposal finds that improved past performance in the area of First Contact Resolution does warrant an increase to the threshold and agrees with FBC's proposed threshold.

ii. Billing Index

The Panel agrees with FortisBC that the proposed service levels lead to an overall high level of service quality and finds the changes that both FEI and FBC propose to the Billing Index SQI are acceptable. Although BCOAPO would like the Utilities to strive for even better performance in this area, we note that more aggressive targets for this SQI would likely lead to higher costs with minimal material benefit.

iii. Meter Reading Accuracy

In the last three years – from 2016 to 2018, FBC achieved 99 percent meter reading accuracy against a benchmark of 97 percent and a threshold of 94 percent.³⁷³ FBC has proposed to increase these to 98 percent for the benchmark and 95 percent for the threshold. Given FBC's performance over the past three years the Panel agrees with BCOAPO that a higher threshold is warranted. **Therefore, the Panel approves FBC's increase of the benchmark to 98 percent but rejects the proposal to set the threshold at 95 percent.** In the past five years the worst performance was in 2016 where a meter accuracy of 96 percent was achieved. Given this performance, the Panel sets the threshold at 96 percent which is reasonable and has proven to be consistently achievable.

iv. Replace Telephone Abandonment Rate with Average Speed of Answer

The Panel agrees with FortisBC's decision to discontinue the Telephone Abandonment Rate SQI for both FEI and FBC, and notes that interveners support this decision. The Panel also agrees that the Average Speed of Answer (ASA) will be a useful new informational indicator and, as suggested by BCSEA, could, at some point (with actual experience) be made an SQI.

Reliability SQIs

i. SAIDI and SAIFI

The Panel finds that FBC's proposed changes to how it reports SAIDI and SAIFI results are reasonable. We agree that FBC should continue to normalize the results in accordance with the IEEE method, and that the implementation of the OMS will require new benchmarks and thresholds to be established. We also agree that reporting actual results on a current year basis is preferable to a three-year rolling average because it provides a clearer indication of FBC's performance in a given year.

³⁷³ Exhibit B-1, p. C-152.

In the view of the Panel a rolling three-year average benchmark would make it difficult to detect changes in service quality and therefore, rejects ICG's suggestion that FBC calculate the benchmark on that basis. Given the requirement for updated benchmarks and thresholds for SAIDI and SAIFI, the Panel directs FBC to propose new benchmarks and thresholds in the compliance filing to this decision. In addition, as agreed to by FBC, the Panel also directs FBC to include a discussion of major events relevant to the SAIDI and SAIFI results in future Annual Review materials.

ii. Interconnection Utilization

The Panel finds value in the proposed new metric, Interconnection Utilization as this SQI will permit municipal customers to benchmark their service against that received by other FBC customers and to address any system reliability concerns with FBC. The Panel agrees with FBC that the reliability of the FBC system as a whole is already reflected in the SAIDI and SAIFI indicators, and therefore finds that the Interconnection Utilization SQI should be an informational indicator.

GHG Emissions Reporting

We deal with this more fully in the Annual Review Section 7.0 of this Decision. As noted above, FortisBC acknowledges that parties can ask questions about the Sustainability Report, which is already publicly available, during the Annual Review proceedings. Therefore, the Panel agrees that it is reasonable for FEI to discontinue reporting total GHG emissions as part of the Annual Review process.

Failure to meet SQIs

FortisBC has confirmed that it is proposing no changes to the existing approved process for interpreting metric performance where one or more of the Utilities' SQIs do not meet the benchmark and fall outside of the threshold.³⁷⁴ The Panel is in agreement and finds **provisions outlined in the Current PBR Plan Decisions continue to be reasonable. Therefore, the Panel determines that the existing approved process for interpreting metric performance is to remain in effect over the term of the MRPs.**

Informational Indicators

In addition to the SQIs, the Panel approves the following informational indicators for the Utilities:

- **Customer Satisfaction Index (measures overall customer satisfaction) – FEI and FBC;**
- **Average Speed of Answer (average number of seconds to answer emergency and non-emergency calls) – FEI and FBC**
- **Transmission Reportable Incidents (number of reportable incidents to outside agencies) – FEI only**
- **Leaks per KM of Distribution System Mains (number of leaks on the distribution system per KM of distribution system mains) – FEI only**
- **Generator Forced Outage Rate (percent of time a generating unit is removed from service due to component failure or other events) – FBC only**
- **Interconnection Utilization (percent of time that an interconnection point was available and providing electrical service to wholesale customers) – FBC only**

³⁷⁴ Exhibit B-10, BCUC IR 90.8.

The Utilities are directed to report on these informational indicators along with the SQIs as part of the Annual Review process.

3.4 Financial Off-ramp Provisions

The off-ramp provision is an important component of the Current PBR Plans. As explained in the Current PBR Plan Decisions, an off-ramp is “a term of a PBR Plan that contemplates a complete regulatory review of the PBR Plan in particular limited circumstances.”³⁷⁵ FortisBC explains that the most common form of off-ramp provision is an earnings-based mechanism, which is triggered if the actual achieved ROE of the utility differs significantly from its allowed ROE.³⁷⁶ FortisBC includes a jurisdictional comparison which demonstrates that performance based mechanisms in other Canadian jurisdictions commonly include an off-ramp provision. It describes off-ramps as one of the safeguard mechanisms to protect the utility and ratepayers against the potential unintended consequences of PBR plans (such as windfall surplus or losses) and can be triggered when the variances between achieved and approved ROEs exceed a certain threshold.³⁷⁷

The Current PBR Plans include a proposed off-ramp that is triggered if earnings in any one year vary from the allowed ROE by more than +/- 200 basis points (post sharing) or if earnings average more than +/- 150 basis points (post sharing) from the allowed ROE for two consecutive years.³⁷⁸ If the off-ramp is triggered, the plans will be reviewed to determine if elements of the plans require recalibration or where a satisfactory solution could not be found, how best to exit from the plan.³⁷⁹

FortisBC notes that although other safeguard mechanisms in the Current PBR Plans ensured that the off-ramp was not required, similar provisions have been triggered in other jurisdictions (for example, Alberta).³⁸⁰ FortisBC proposes to retain the financial off-ramp provisions as determined for the Current PBR Plans and explains that once triggered, a review of the Proposed MRPs would take place.³⁸¹

Positions of Interveners

BCSEA supports FortisBC’s approach to an off-ramp.³⁸²

The CEC submits that the off-ramp provisions should be lowered to 100 or 150 basis points pointing out that the off-ramp does not provide adequate ratepayer protection if actual earnings are less than the approved ROE. It speculates that “the Utilities would likely argue that they did not have the opportunity to earn a fair return, and seek some redress prior to reaching the off-ramp of 200 basis points; however, this opportunity would not be afforded to ratepayers in the event that the earnings average was above the threshold.”³⁸³

None of the other interveners made submissions with respect to the off-ramp.

³⁷⁵ FEI Current PBR Plan Decision, p. 156; FBC Current PBR Plan Decision, p. 151.

³⁷⁶ Exhibit B-1, p. C-12.

³⁷⁷ *Ibid.*, p. B-72.

³⁷⁸ *Ibid.*, p. B-29.

³⁷⁹ FEI Current PBR Plan Decision, p. 160; FBC Current PBR Plan Decision, p. 154.

³⁸⁰ Exhibit B-1, pp. B-45–B-46.

³⁸¹ FortisBC Final Argument, p. 88.

³⁸² BCSEA Final Argument, p. 16.

³⁸³ CEC Final Argument, p. 55.

FortisBC Reply Argument

FortisBC states that the CEC provides no reason why protection is not adequate in support of its submission that the off-Ramp should be lowered. FortisBC explains that off-ramps are designed to be symmetrical so that both the Utilities and customers are equally protected. It also states that the CEC's submission regarding its seeking redress prior to reaching an off-ramp is without merit. Any such application prior to reaching the off-ramp would face the same challenge of having to demonstrate why the BCUC should agree to a change given that the off-ramp was not triggered.³⁸⁴

Panel Determination

The Panel is persuaded that there is a need to reduce the off-ramp trigger from the current +/- 200 basis points (post sharing) in any one year or +/- 150 basis points (post sharing) in any two consecutive years. **The Panel determines that for the Proposed MRPs, the off-ramp will be triggered if earnings in any one year vary from the approved ROE by more than +/- 150 basis points (post sharing).**

None of the parties raised concerns about including an off-ramp provision. Therefore, the issue for the Panel is whether the off-ramp sets the proper triggers and whether on balance, it is equally fair to ratepayers and the Utilities.

The purpose of an off-ramp is to safeguard and protect the interests of both the ratepayer and Utility. Therefore, it is necessary to find a balance between ensuring the utility does not earn too high of a ROE and also ensuring the utility does not bear undue risk in not earning its allowed ROE. In the Current PBR Plans, the one-year rate is set at +/- 200 basis points after sharing which means that for the off-ramp to be triggered it will require a positive differential of 400 basis points. Although the off-ramp was not triggered under the Current PBR Plans, the Panel notes that there are significant changes approved in this Decision. Primary among these are the following:

- an increase in the growth factor multiplier from 50% to 75% for O&M;
- elimination of the growth factor for capital;
- reduction of the X-factor;
- reduction of the materiality levels for Z factors;
- elimination of the lag factor in the formulaic O&M calculation;
- use of a forecast approach for most capital expenditures; and
- increase in the scope of items included in the ESM.

In the Panel's view, the combined impact of these changes improves the Utilities' opportunity to achieve savings and to earn their allowed ROE. While the Panel considers these changes to be justified and reasonable, we acknowledge that they are significant and because of this there is an increased level of risk which justifies the appropriate trigger for an off-ramp under the MRP being lower.

³⁸⁴ FortisBC Reply Argument, p. 49.

4.0 Making the Proposed MRPs Work

4.1 FEI and FBC 2019 Base O&M

The starting point for determining the O&M per customer amount for the Proposed MRPs is the 2019 Base O&M.³⁸⁵ FortisBC explains that the 2019 Base O&M is the adjusted actual O&M expenditures for 2018 expressed over the average number of customers for 2018, escalated by the approved formula inflation factors for 2019. Incremental funding is proposed as a part of the 2019 Base O&M to support initiatives that address future key issues and challenges in the operating environment.³⁸⁶ Coupled with an index-based approach to controllable O&M described in Subsection 3.2.1 of this Decision, FortisBC submits:

The adjusted amount is designed to provide O&M funding for the Companies [during the Proposed MRP term] to maintain their high overall service quality levels and address challenges in their operating environment including changes in regulations, compliance requirements, customer expectations, growing customer base, and climate policy.³⁸⁷

However, FortisBC explains that FEI's and FBC's proposed 2019 Base O&M will still require the Utilities to do "more with the same" as there are cost pressures anticipated during the term of the Proposed MRPs for which it is not requesting any incremental funding. As stated earlier, FortisBC submits that it has "achieved efficiencies after a number of years of successfully implementing cost savings" and finding new productivity opportunities is increasingly difficult. To manage the cost pressure challenges, "doing more with the same" will be a productivity approach focused on the efficient allocation of resources within the business.³⁸⁸

Table 31 below shows a breakdown of the expected cost pressures during the term of the Proposed MRPs for which FortisBC is not requesting any incremental funding, in relation to recent years' expenditures:

Table 31: Breakdown of Expected Cost Pressures during the Proposed MRP Term³⁸⁹

Company	Cost Pressures listed on pages C-16 and C-17	Department Affected	\$ millions
FEI	Additional resources to enable continued investment	Operations	\$ 0.80
FEI	Operations transition and succession planning	Operations	\$ 0.70
FBC	Increased engineering and technology staffing	Operations and Engineering	\$ 0.22
FEI and FBC	Increased general and administrative costs	Finance, HR, Procurement	\$ 0.64
FEI and FBC	Increased costs in meeting evolving municipal regulations	Operations	\$ 0.20
FEI and FBC	Increased environmental and safety programs	Safety	\$ 0.20
	Total Cost Pressures listed		\$ 2.76

The Subsections that follow will address the calculation of FEI's and FBC's 2019 Base O&M using the above method and the issues identified during the review of the Application.

³⁸⁵ Exhibit B-1, p. C-14.

³⁸⁶ Ibid.

³⁸⁷ Ibid.

³⁸⁸ Exhibit B-1, p. C-16; Exhibit B-7, CEC IR 18.1.

³⁸⁹ Exhibit B-10, BCUC IR 22.1.

4.1.1 FEI and FBC 2019 Base O&M Calculation

Overview

Beginning with 2018 Actual Base O&M as the starting point, FortisBC calculates 2019 Base O&M with the following adjustments:

- Temporary O&M net savings included in the 2018 Actual expenditures are added back to reflect ongoing costs;
- Additions and subtractions are made to reflect the updated shared and corporate services costs (see Subsection 4.6.3);
- 2018 Actual expenditures are multiplied by the 2019 formula inflator (as approved in the Annual Reviews for 2019 Rates) to adjust costs from 2018 Actual to 2019;
- Additions and subtractions are made to reflect:
 - Approved 2019 exogenous (Z) factor items which should be in Base O&M;
 - Items with flow-through or deferral treatment in the Current PBR Plans which FortisBC now proposes to include in Base O&M;³⁹⁰
 - Items in Base O&M in the Current PBR Plans which FortisBC now proposes flow-through or deferral treatment,³⁹¹ and
- Incremental funding of certain costs during the term of the Proposed MRPs is added to Base O&M, including incremental costs associated with controllable LNG O&M.³⁹²

The calculation of 2019 Base O&M for FEI and FBC, respectively, are presented in Tables 32 and 33 below:

³⁹⁰ See FEI LNG O&M costs and FAES overhead recoveries in Subsection 3.2.8.

³⁹¹ See integrity digs and FBC BCUC levies in Subsection 3.2.8, NGIF funding in Subsection 5.2 and FBC AMI Project and Manual Meter Read costs in the FBC incremental funding Subsection.

³⁹² FortisBC Final Argument, pp. 110–111, 133–134.

Table 32: FEI 2019 Base O&M (\$ millions)³⁹³

2018 actual Base O&M	\$ 238.693
Add temporary savings	1.677
Shared Services Studies Impact	(0.338)
Deduct 2018 actual FHI Management Fee	<u>(12.383)</u>
Adjusted 2018 Base O&M	\$ 227.649
2019 Inflation	1.02198
2019 Base O&M before adjustments	<u>\$ 232.653</u>
Adjustments:	
Exogenous Factors:	
2019 Z factor (EHT net of MSP)	0.972
Deferrals:	
FAES overhead	0.786
BCUC levies	(2.839)
NGIF funding	(0.409)
Flow Through treatment:	
Integrity Digs	(2.600)
LNG Plant O&M	5.101
2019 Normalized Forecast FHI Management Fee	11.682
2019 Reclass of FHI corporate services charged only to FEI	0.387
Total adjustments	<u>13.081</u>
New funding for MRP term	<u>\$ 10.416</u>
2019 Base O&M	<u>\$ 256.150</u>

FEI's proposed 2019 Base O&M on a per customer basis is \$250, which is derived from the above 2019 Base O&M of \$256.150 million divided by 1,024,962 customers (12-month average number of customers).³⁹⁴

Table 33: FBC 2019 Base O&M (\$ millions)³⁹⁵

2018 actual Base O&M	\$ 53.839
Add temporary savings	0.500
Shared Services Studies Impact	0.338
Deduct 2018 actual FHI services direct charged to FBC	(1.023)
Deduct 2018 actual FI services direct charged to FBC	<u>(1.615)</u>
Adjusted 2018 Base O&M	\$ 52.039
2019 Inflation	1.02382
2019 Base O&M before adjustments	<u>\$ 53.279</u>
Adjustments:	
Exogenous Factors:	
2019 Z factor (EHT net of MSP)	0.240
2019 Z factor - MRS	1.540
Deferrals:	
Manual meter read	0.180
Flow Through treatment:	
AMI Project cost reductions	(1.161)
BCUC levies	(0.237)
2019 Normalized Forecast FHI Management Fee	3.374
FBC Costs included in FHI Corporate Services	(0.308)
Total adjustments	<u>3.628</u>
New funding for MRP term	<u>\$ 0.763</u>
2019 Base O&M	<u>\$ 57.670</u>

³⁹³ Exhibit B-1-3, Table C2-1, p. C-19.

³⁹⁴ FortisBC Final Argument, p. 110.

³⁹⁵ Exhibit B-1-3, Table C2-14, p. C-44.

FBC's proposed 2019 Base O&M on a per customer basis is to \$416, which is derived from the above 2019 Base O&M of \$57.670 million divided by 138,649 customers (12-month average number of customers).³⁹⁶

FortisBC explains that the proposed 2019 Base O&M amounts above are determined before the removal of capitalized overheads. Therefore, the percentage of O&M that the Utilities propose to capitalize does not have any impact on the determination of the proposed 2019 Base O&M (in aggregate or on a per customer basis).³⁹⁷ Subsection 4.6.4 of the Decision addresses the approvals sought regarding capitalized overhead rates for FEI and FBC.

Intervenors raised the following issues related to FortisBC's calculation of 2019 Base O&M:

- The use of 2018 Actual O&M as the starting point for FEI and FBC;
- The accuracy of the adjustment to reflect the updated shared and corporate services costs for FBC; and
- The appropriateness of incremental O&M funding requests for the MRP term for FEI and FBC.

We address these issues below.

Use of 2018 Actual Base O&M as a Starting Point

FortisBC proposes that 2018 Actual O&M per customer is the starting point for determining the 2019 Base O&M because it incorporates the productivity savings achieved over the Current PBR Plans and also reflects the current costs necessary to meet safety standards and other service requirements.³⁹⁸ FortisBC believes the starting point should be the most recent year (i.e. 2018) since it represents the current required spending to support business requirements, including current levels of inflation.³⁹⁹

FortisBC stated, if it had started from a three-year historical average, for example, more adjustments would be required to arrive at an appropriate starting point for the proposed five-year MRP term that would reflect current levels of inflation and operational requirements.⁴⁰⁰

Positions of Intervenors

ICG

ICG submits that the starting point for determining formula O&M funding during the term of FBC's Proposed MRP should be a BCUC-approved cost-of-service for 2020.⁴⁰¹ ICG argues that this is because current costs (for 2020) may not reflect historic costs. ICG states:

³⁹⁶ FortisBC Final Argument, p. 133.

³⁹⁷ Exhibit B-2, p. 3.

³⁹⁸ Exhibit B-1, p. C-14.

³⁹⁹ Exhibit B-4, BCMEU IR 18.1.

⁴⁰⁰ Ibid.

⁴⁰¹ ICG Final Argument, p. 6.

In order for the Commission to conclude that the 2018 Actual Base O&M is fair to customers, the ICG submits that the Commission must conclude that the 2018 Actual Base O&M reflects the expected/current cost of service during 2020.⁴⁰²

Alternatively, ICG suggests that if actual costs are used as the starting point for formula O&M funding, then the Base O&M should be calculated from the lowest-cost year during the Current PBR Plan (including 2019).⁴⁰³ However, if the BCUC agrees that 2018 Actual O&M should be the starting point, ICG submits there should also be an adjustment “equivalent to the amount of excess returns” earned by FBC in 2018 (in addition to the adjustments to 2018 Actual O&M proposed by FBC).⁴⁰⁴ ICG argues that the starting point should be “rates where the utilities are expected to achieve their approved return on equity and no more.”⁴⁰⁵

CEC

The CEC submits, “it is not prudent to simply rely on the costs that were allocated from the previous formula and translate this to another formula.” In the CEC’s view, a full review of costs should be developed prior to implementing another different formula for the Proposed MRPs.⁴⁰⁶

BCOAPO

BCOAPO submits that the use of the 2018 Actual Base O&M for FBC is a reasonable starting point.⁴⁰⁷

Other Interveners

No other interveners commented on this issue.

FortisBC Reply Argument

FortisBC submits that there is no material difference between what FortisBC has proposed and having a 2020 forecast of O&M since FortisBC’s 2018 Actual O&M and all adjustments were available for review and scrutiny in this proceeding. FortisBC states:

The BCUC can be satisfied through this proceeding that the 2018 Actual O&M reflects the cost to serve customers in 2018, that each adjustment to that amount is reasonable and reflects FortisBC’s [cost of service], and the end result is a reasonable starting point for the Proposed MRPs because it will result in 2020 O&M that represents FortisBC’s O&M costs to serve customers in 2020. This ensures that the Utilities will have a reasonable opportunity to recover their prudently incurred costs, including a fair rate of return, while ensuring customers pay only just and reasonable rates.⁴⁰⁸

In response to ICG’s recommendation to adjust 2018 Actual O&M by the amount of “excess returns” earned by FBC in 2018, FBC contends that it did not receive any “excess returns.” FBC submits that its 2018 rates were approved by the BCUC based on the approved FBC 2014-2019 PBR Plan and are therefore just and reasonable. In

⁴⁰² ICG Final Argument, p. 7.

⁴⁰³ Ibid.

⁴⁰⁴ Ibid.

⁴⁰⁵ Ibid.

⁴⁰⁶ CEC Final Argument, pp. 54–55.

⁴⁰⁷ BCOAPO Final Argument, p. 6.

⁴⁰⁸ FortisBC Reply Argument, pp. 60–61.

FBC's view, reducing Base O&M by FBC's achieved return above its allowed ROE would be impermissible retroactive ratemaking as it would be unwinding the approved rates for 2018. In FortisBC's view, ICG's argument has no merit, would be an error of law and must be rejected.⁴⁰⁹

Panel Determination

The Panel agrees with FortisBC and BCOAPO that it is reasonable to use the 2018 Actual O&M as the starting point for determining FEI and FBC Base O&M for the MRP. Regarding the concerns expressed by the CEC and ICG that a full review of costs should be developed prior to implementing another different formula or that a BCUC-approved COS for 2020 is necessary, the Panel is persuaded by FortisBC's submission that there is no material difference between what FortisBC has proposed and having a 2020 forecast of O&M. As FortisBC points out, the 2018 Actual O&M and all adjustments were available for review and scrutiny in this proceeding.

Further, the Panel disregards ICG's recommendation that the BCUC should adjust FBC's Base O&M for "excess returns" earned by FBC in 2018. The Panel finds that ICG has not provided any regulatory justification for such an adjustment.

Adjustment to Reflect Updated Shared and Corporate Services Costs

FBC submits that \$3.374 million needs to be added to the 2019 Base O&M, and \$0.308 million needs to be deducted (net \$3.066 million), in order to reflect the results from its 2018 Corporate Services Study.⁴¹⁰ The 2018 Corporate Services Study is discussed in Subsection 4.6.4 of this Decision.

Positions of Interveners

BCOAPO submits that the "2019 Normalized [FortisBC Holdings Inc. (FHI)] FHI Management Fees" adjustment proposed by FBC should be \$3.339 million instead of \$3.374 million, and the "FBC Costs included in FHI Corporate Services" adjustment should be \$0.306 million instead of \$0.308 million.⁴¹¹ Given that the forecasted 2020 allocated [Fortis Inc (FI)] FI/FHI corporate services management fee is \$3.439 million in 2020, BCOAPO states that discounting the \$3.439 million to 2019 dollars only requires an adjustment of \$3.339 million based on an inflation rate of 2 percent and customer growth of 1 percent. Similarly, O&M costs that historically reside in FBC which are now required to be included in the FHI corporate services pool of costs are estimated to be \$0.315 million for 2020. Discounting the \$0.315 million to 2019 dollars, the adjustment needs only be \$0.306 million using the same above-noted assumptions.⁴¹²

No other interveners commented on this issue.

⁴⁰⁹ FortisBC Reply Argument, p. 60.

⁴¹⁰ See Table 33 above.

⁴¹¹ BCOAPO Final Argument, p. 9.

⁴¹² Ibid.

FortisBC Reply Argument

FBC acknowledges BCOAPO's calculations but states:

FBC has explained how it started with the 2020 forecast of these items and then built up the 2019 Base O&M through adjustments. BCOAPO's approach is another way in which the 2019 Base O&M could have been calculated for these amounts, but it does not result in a material difference and should not be adopted.⁴¹³

Panel Determination

The Panel agrees with FortisBC and finds the adjustments identified by BCOAPO would have a very minimal impact on FEI's proposed 2019 Base O&M of \$250 on a per customer basis and FBC's proposed 2019 Base O&M of \$416 on a per customer basis.

Incremental Funding Requests

FortisBC submits that it needs incremental funding to respond to significant changes in the operating environment.⁴¹⁴ The Panel addresses below the new incremental funding requested by FEI and FBC for the term of the Proposed MRPs.

FEI Incremental Funding Requests

For the Proposed MRPs, FEI requests incremental Base O&M funding of \$1.853 million to operate and maintain the LNG facilities safely and in compliance with relevant regulations and permit requirements.⁴¹⁵ The \$1.853 million is included in the addition of \$5.101 million shown in Table 32 in respect of items with flow-through treatment in the Current PBR Plans which FortisBC now proposes to include in Base O&M.⁴¹⁶ FEI states that \$1.201 million in incremental funding is reflective of more equipment and processes being required to operate the increased plant size of the Tilbury expansion, which is effectively seven times larger than the previous Tilbury plant. The remaining amount supports the reliability and maintenance of the Mt. Hayes facility (\$0.253 million) and supporting functions for the LNG group including management and engineering (\$0.389 million).⁴¹⁷

As shown in Table 32 above, FEI requests new funding of \$10.416 million to be added to 2019 Base O&M. FEI submits that these funding requests address future issues and challenges in its operating environment (including changes in regulations, compliance requirements, customer expectations, growing customer base, and climate policy) that otherwise could not be addressed by indexed O&M.⁴¹⁸

The \$10.416 million is organized into four themes and broad-based business drivers as follows:

- Customer Expectations (\$1.360 million);
- Engagement (\$3.360 million);

⁴¹³ FortisBC Reply Argument, p. 71.

⁴¹⁴ FortisBC Final Argument, pp. 118, 138.

⁴¹⁵ Exhibit B-1, p. C-27.

⁴¹⁶ See FEI LNG O&M costs in Subsection 3.2.8.

⁴¹⁷ Exhibit B-1, pp. C-27—C-28.

⁴¹⁸ *Ibid.*, p. C-29.

- Indigenous Relations (\$0.888 million); and
- System Operations, Integrity and Security (\$4.808 million).⁴¹⁹

With respect to Customer Expectations, FEI requests incremental funding of \$1.200 million for the “Connect to Gas” program and \$0.160 million for additional in-house resources to support customer preferences. Historical expenditures in these areas since the start of FEI’s Current PBR Plan, along with the available funding in 2019, are provided in Table 34 below. The proposed incremental funding represents the additional funds to be added to the FEI 2019 Base O&M.

Table 34: FEI New Funding for Customer Expectations⁴²⁰

	Historical Expenditures (\$ millions)					Base	Proposed	Proposed
	2014	2015	2016	2017	2018	2019	2019	Incremental
Connect to Gas	\$0.977	\$2.100	\$2.227	\$2.112	\$2.276	\$2.380	\$3.580	\$1.200
In-house Resources to address customer preferences	\$0.051	\$0.072	\$0.125	\$0.271	\$0.271	\$0.271	\$0.431	\$0.160
Total	\$1.028	\$2.172	\$2.352	\$2.383	\$2.547	\$2.651	\$4.011	\$1.360

FEI explains that activities under the “Connect to Gas” umbrella encompass a variety of activities that include but are not limited to, providing incentives for conversion from higher carbon fuel (oil or propane) to natural gas. Connect to Gas also includes broad based marketing and advertising related activities undertaken to attract and retain customers, as well as incentives to increase the adoption of natural gas appliances in buildings.⁴²¹ FEI states the Connect to Gas program provides support (amongst other initiatives) towards its goal of GHG emission reductions by increasing customer conversions to natural gas from higher carbon fuel sources.⁴²² FEI submits that the need to broaden Connect to Gas activities is supported by:

- strong customer demand for FEI’s services;
- changes in the policy environment at all levels of government that constrain or restrict the adoption of natural gas in the market in order to support electrification; and
- little historical spending on stakeholder engagement with builders, developers, and manufacturers for the purpose of advancing gas technology, adoption and use.⁴²³

FortisBC explains that the additional in-house resources to address customer preferences consist of one Digital Advisor and one Communications Writer/Researcher to support customer communication via channels, such as Facebook, Twitter, LinkedIn, Instagram, E-newsletters, Blogs and Customer Bills.⁴²⁴ The total funding required for these two roles is \$0.200 million, where FEI’s share is \$0.160 million (as shown in Table 34 above) and FBC’s share is \$0.040 million (included in the \$0.080 million in Table 38 in below).⁴²⁵

⁴¹⁹ Exhibit B-1-3, Table C2-7, p. C-29.

⁴²⁰ Ibid., Table C2-8, p. C-29.

⁴²¹ Exhibit B-6, BCSEA IR 25.2.

⁴²² Exhibit B-12, BCUC IR 234.2.

⁴²³ FortisBC Final Argument, pp. 120–121.

⁴²⁴ Exhibit B-10, BCUC IR 30.2.

⁴²⁵ Exhibit B-1, p. C-32; Exhibit B-5, BCOAPO IR 46.2.2.

With respect to Engagement, FEI requests incremental funding of \$2.000 million for raising awareness with consumers, \$1.000 million for its Climate Action Partners Program, and \$0.360 million for resources to support increased consultation with stakeholders and right holders. Historical expenditures in these areas since the start of FEI’s Current PBR Plan, along with the available funding in 2019, are provided in Table 35 below. The proposed incremental funding represents the additional funds to be added to the FEI 2019 Base O&M.

Table 35: FEI New Funding for Engagement⁴²⁶

	Historical Expenditures (\$ millions)					Base	Proposed	Proposed
	2014	2015	2016	2017	2018	2019	2019	Incremental
Raising Awareness for Consumers in a Lower Carbon Future	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2.000	\$ 2.000
Climate Action Partners program	\$ -	\$ -	\$ -	\$ 0.414	\$ 0.211	\$ 0.400	\$ 1.400	\$ 1.000
Other Supporting Resources	\$ -	\$ -	\$ -	\$ 0.110	\$ 0.110	\$ 0.110	\$ 0.470	\$ 0.360
Total	\$ -	\$ -	\$ -	\$ 0.524	\$ 0.321	\$ 0.510	\$ 3.870	\$ 3.360

FEI submits that expenditures for Raising Awareness for Consumers in a Lower Carbon Future will be made to increase broad public awareness of the role of natural gas and FEI’s infrastructure in supporting the transition to a lower carbon future. FEI clarified that the funding has a different purpose, message, and audience than FEI’s Connect to Gas activities. Therefore, the two programs require the development of separate content, communications streams, events, workshops, sponsorships and targeted advertising.⁴²⁷

FEI states that the Climate Action Partners Program aims to educate stakeholders on FEI’s energy offerings and on the role of the gas delivery system in driving progress toward the province’s CleanBC Plan targets. FEI submits that the new funding will be for: 18 additional Senior Energy Specialist roles; expanding the program’s partnerships with Indigenous communities, non-profit and academic organizations; and providing targeted support to stakeholders (i.e. climate action workshops, education events).⁴²⁸

FEI identifies the funding for ‘other supporting resources’ relates to early stage policy and program development (\$0.200 million), and one Digital Communications Advisor to support ongoing changes and draft additional content for its Talking Energy and Energy Leaders web-based platforms. FEI’s share of this funding is \$0.160 million and FBC’s share is \$0.040 million (included in the \$0.080 million in Table 38 below).⁴²⁹

With respect to Indigenous Relations, FEI submits that incremental funding is to renew and strengthen Indigenous relationships, particularly with respect to access to land, given that Indigenous relationships are critical to continue to provide safe and reliable utility service through capital infrastructure projects. The incremental funding requested is:

- \$0.488 million for two additional positions and support funding related to the elevated status of UNDRIP implementation at both federal and provincial levels;
- \$0.200 million for community investments and sponsorships in Indigenous communities; and

⁴²⁶ Exhibit B-1, Table C2-1-, p. C-33.

⁴²⁷ FortisBC Final Argument, pp. 123–124.

⁴²⁸ Exhibit B-1, pp. C-34–C-35; FortisBC Final Argument, p. 124–125.

⁴²⁹ Ibid., pp. C-35–C-36.

- \$0.200 million for one Indigenous Employment Advisor to support the employment, training, awareness and engagement of Indigenous candidates (\$0.140 million) and consultant support to help with Indigenous land code issues (\$0.060 million).⁴³⁰

Historical expenditures in these areas since the start of FEI’s Current PBR Plan, along with the available funding in 2019, are provided in Table 36 below. The proposed incremental funding represents the additional funds to be added to the FEI 2019 Base O&M.

Table 36: FEI New Funding for Indigenous Relations⁴³¹

	Historical Expenditures (\$ millions)					Base	Proposed	Proposed
	2014	2015	2016	2017	2018	2019	2019	Incremental
Relationship Protocol Agreements with the Indigenous community	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.488	\$ 0.488
Indigenous Community Investments	\$ 0.054	\$ 0.096	\$ 0.092	\$ 0.096	\$ 0.096	\$ 0.096	\$ 0.296	\$ 0.200
Indigenous Supporting resources	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.200	\$ 0.200
Total	\$ 0.054	\$ 0.096	\$ 0.092	\$ 0.096	\$ 0.096	\$ 0.096	\$ 0.984	\$ 0.888

Finally, with respect to System Operations, Integrity and Security, FEI requests incremental funding in the areas of integrity management, maintaining system infrastructure, operations and compliance safety, cyber security, data analytics, Gas Control room coverage, and Canadian Energy Pipelines Association (CEPA) participation.⁴³² Historical expenditures since the start of FEI’s Current PBR Plan, along with the available funding in 2019, are provided in Table 37 below. The proposed incremental funding represents the additional funds to be added to the FEI 2019 Base O&M.

Table 37: FEI New Funding for System Operations, Integrity and Security⁴³³

	Historical Expenditures (\$ millions)					Base	Proposed	Proposed
	2014	2015	2016	2017	2018	2019	2019	Incremental
System Operations, Integrity and Safety								
Integrity Management	\$ 3.500	\$ 4.000	\$ 4.900	\$ 5.000	\$ 5.300	\$ 6.200	\$ 7.550	\$ 1.350
Maintaining System Infrastructure	\$ 38.800	\$ 38.900	\$ 40.500	\$ 40.700	\$ 43.200	\$ 44.200	\$ 44.900	\$ 0.700
Operations Compliance and Safety	\$ 15.700	\$ 17.000	\$ 19.000	\$ 19.200	\$ 19.500	\$ 19.600	\$ 20.200	\$ 0.600
Cyber Security	\$ -	\$ -	\$ -	\$ -	\$ 0.676	\$ 1.312	\$ 1.820	\$ 0.508
Data Analytics	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.300	\$ 0.300
Gas Control	\$ 1.686	\$ 2.113	\$ 2.235	\$ 2.156	\$ 2.206	\$ 2.580	\$ 3.230	\$ 0.650
CEPA Participation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.100	\$ 0.800	\$ 0.700
Total	\$ 59.686	\$ 62.013	\$ 66.635	\$ 67.056	\$ 70.882	\$ 73.992	\$ 78.800	\$ 4.808

FEI submits that it needs to increase expenditures for cyber security to respond to evolving cyber risks. The additional funding will be for three positions and managed service and tools, of which FEI will be allocated \$0.508 million (as shown in Table 37 above) and FBC will be allocated \$0.080 million (refer to Table 38 below).⁴³⁴ FEI and FBC will also share incremental funding to support increased use of data analytics (e.g. to reduce planned customer outages, improve asset management, and optimize workforce deployment). FEI’s share of this cost is \$0.300 million (as shown in Table 37 above) and FBC’s share is \$0.099 million (refer to Table 38 below).⁴³⁵

⁴³⁰ Exhibit B-1, pp. C-36–C-37; FortisBC Final Argument, pp. 127–128.

⁴³¹ Ibid., Table C2-12, p. C-36.

⁴³² Ibid., pp. C-38–C-42.

⁴³³ Ibid., Table C2-13, p. C-37.

⁴³⁴ Exhibit B-5, BCOAPO IR 51.1.

⁴³⁵ Exhibit B-1, p. C-40; FortisBC Final Argument, p. 131.

Positions of Interveners

MoveUP

MoveUP supports all FEI incremental funding requests, submitting that “all of the proposals appear to reflect genuinely new spending requirements driven by changes in circumstances and new cost pressures that FortisBC has identified and explained.”⁴³⁶

CEC

The CEC opposes all FEI incremental funding requests, submitting that the amounts requested by FortisBC are not “doing more with the same but is proposing to do more with more.”⁴³⁷ The CEC submits it is not credible to consider that FEI’s business environment has changed so significantly since the end of FEI’s Current PBR Plan given it was capably managing all its business activities and now can no longer function properly with the O&M base it was provided.⁴³⁸ The CEC is of the view that FEI can conduct the activities it has requested incremental funding for within the overall formula funding with minimal impact given that it has, and should have been, undertaking these activities as an existing requirements for many years.⁴³⁹ In addition, the CEC submits that the activities and benefits of the proposed activities are vague and there are no metrics that can be reported and utilized to determine the cost/benefit of the spending.⁴⁴⁰

Finally, the CEC submits that there is no persuasive evidence these activities directly relate to inflation and customer growth to be included in the O&M base.⁴⁴¹ It recommends, at a minimum, that these should be flow-through costs and trued up.⁴⁴² Notwithstanding, the CEC states, “to the extent that the Commission approves any additional funding, it recommends the Commission require independent reporting on the spending during the Annual Reviews to ensure it is not underspent and contributing to shareholder benefits.”⁴⁴³

BCSEA and BCOAPO

BCSEA and BCOAPO support most, but not all, of FEI’s incremental funding requests.⁴⁴⁴ Specifically, the parties oppose the following:

- \$1.2 million for “Connect to Gas” activities within the Customer Expectations category.⁴⁴⁵ BCSEA submits that the “Connect to Gas” program is a load-building program, which is contrary to carbon reduction policies and FortisBC’s “do more with what we have” approach to index-based O&M.⁴⁴⁶ BCOAPO submits, “given the size of the increase requested, previous plan O&M under-spending, and previous plan FEI over-earning, \$2.380M is an appropriate base for this spending component as a base in 2019.”⁴⁴⁷

⁴³⁶ MoveUP Final Argument, p. 14.

⁴³⁷ CEC Final Argument, p. 12.

⁴³⁸ *Ibid.*, p. 17.

⁴³⁹ *Ibid.*, p. 18.

⁴⁴⁰ *Ibid.*, p. 18.

⁴⁴¹ *Ibid.*, p. 18.

⁴⁴² *Ibid.*, p. 18.

⁴⁴³ *Ibid.*, p. 19.

⁴⁴⁴ BCSEA Final Argument, p. 19; BCOAPO Final Argument, pp. 13–16.

⁴⁴⁵ *Ibid.*, p. 20; *Ibid.*, pp. 13–15.

⁴⁴⁶ *Ibid.*, p. 20.

⁴⁴⁷ BCOAPO Final Argument, p. 15.

- \$0.160 million for other supporting resources within the Engagement category. BCOAPO submits that either the incremental funding to support customer communications or the Customer Engagement targeted incentive should be approved and not both.⁴⁴⁸
- \$2.000 million for “Raising Awareness for Consumers in a Lower Carbon Future” within the Engagement category. BCOAPO submits that incremental funding of “almost four times the 2018 total engagement spending is excessive” and a figure of \$0.500 million would be more appropriate.⁴⁴⁹

FortisBC Reply Argument

In reply to the CEC, FortisBC submits that the CEC’s submission is “in direct contradiction to the CEC’s own view that Base O&M should be set on a COS approach.” FortisBC states that its incremental funding requests are based on a cost service approach, as FortisBC is seeking to set a reasonable starting point for the Proposed MRPs that reflects its cost to serve customers. Without making such adjustments, FortisBC submits that FEI and FBC would not have a reasonable opportunity to recover their prudently incurred costs, including a fair rate of return.⁴⁵⁰ In addition, FortisBC submits that the CEC’s view that all spending needs to be proven to be “cost effective based on pre-determined metrics” is not a requirement of the UCA or reflected in either cost of service or PBR type ratemaking approaches.⁴⁵¹

With respect to whether incremental costs are forecast to increase by greater than or less than the inflation factors in the formula, FortisBC submits that the CEC’s argument is without merit. It states that if the formula were designed to mimic the forecast of every cost item, then it would not be a formula. FortisBC argues that removing costs from the formula and instead treating them as flow-through reduces the incentive of the Utilities to manage controllable O&M costs and ultimately undermines the intent of the MRP to create an environment where the Utilities are encouraged to initiate efficiencies. To the extent that the cost is controllable, it should be included in the Base O&M to maintain the integrity and incentive powers of the Proposed MRPs.⁴⁵²

FEI disagrees with BCSEA that incremental funding for “Connect to Gas activities” should not be approved because they are counter to carbon reduction policies. FEI submits that it has a key role to play in moving to a low-carbon, renewable energy future and this role is compatible with continuing to give customers the choice to adopt and enjoy the benefits of natural gas. “Connect to Gas” activities support the addition of new customers and foster customer retention to offset the impact of market and carbon reduction policies that will restrict the use of natural gas in other areas, and also support conversions from higher GHG emitting resources.⁴⁵³

In reply to BCOAPO, FEI submits that there is no overlap between the customer engagement incremental funding and the Targeted Incentive for customer engagement. The incremental funding is not for initiatives to increase use of the digital service channels that are the subject of the Targeted Incentive because they relate to different communications channels and are managed by different teams.⁴⁵⁴ FEI also submits that the size of the incremental funding is not a reason to deny the request. The real issue before the BCUC is whether the

⁴⁴⁸ Ibid., p. 10.

⁴⁴⁹ Ibid., p. 15.

⁴⁵⁰ FortisBC Reply Argument, p. 62.

⁴⁵¹ Ibid., p. 62.

⁴⁵² Ibid., pp. 62–64.

⁴⁵³ Ibid., pp. 67–68.

⁴⁵⁴ Ibid., p. 72.

incremental funding is justified.⁴⁵⁵ FEI states that BCOAPO has not provided any reason for why the incremental funding is “excessive” or why its proposed \$0.5 million would be more appropriate. In FEI’s submission, BCOAPO’s argument is not supported and should be given no weight.⁴⁵⁶

Panel Determination

The Panel approves the following incremental O&M funding for FEI:

- **Controllable LNG O&M – 100 percent of the incremental amount requested of \$1.853 million;**
- **Customer Expectations and Customer Engagement – 50 percent of the incremental amount requested resulting in a total for both categories being set at \$2.36 million;**
- **Indigenous Relations – 100 percent of the incremental amount requested of \$0.888 million; and**
- **System Operations, Integrity and Security – 100 percent of the incremental amount requested of \$4.808 million.**

The Panel agrees with FEI that the size of the incremental funding is not a reason to deny the request. In determining the amount to approve, the Panel has considered whether the amounts requested are clearly incremental to the existing funding level. The question for the Panel is whether and if the amount requested is just and reasonable and necessary to ensure safe and reliable service.

In making its determination, the Panel also acknowledges FortisBC’s submissions that the proposed 2019 Base O&M will still require FEI and FBC to do “more with the same” as there are cost pressures anticipated during the Proposed MRP term for which it is not requesting any incremental funding (see Tables 32 and 33). In addition, the efficiencies achieved in the Current PBR Plans do make it increasingly difficult to find further cost savings in future years.

FEI submits that without making the adjustments for the incremental funding, FEI would not have a reasonable opportunity to recover its prudently incurred costs, including a fair rate of return. On the other hand, the CEC opposes any incremental funding requests on the basis that it is not reasonable that FEI’s business environment has changed so significantly since 2018 that FEI can now no longer function properly within the 2018 O&M base expenditures.

The Panel does not agree with the CEC that FEI should have been undertaking these activities for many years. FEI has provided persuasive evidence that the additional funding for LNG O&M, Indigenous Relations and System Operations, Integrity and Security results from changed operating conditions or evolving safety, reliability or regulatory requirements. Accordingly, the Panel finds FEI’s request for this incremental funding to be necessary to ensure safe and reliable service and the amounts requested to be just and reasonable for inclusion in the FEI 2019 Base O&M.

We are not persuaded that the total amounts requested for Customer Expectations and Customer Engagement are needed or warranted. While the Panel agrees there may be a need to ramp up expenditures in these areas

⁴⁵⁵ FortisBC Reply Argument, p. 65.

⁴⁵⁶ *Ibid.*, p. 69.

due to increased or changing customer expectations, we are not convinced they need to be raised to requested levels. We believe it is reasonable to reallocate spending from other business and communication activities (i.e. do more with the same) and use existing resources along with the 50 percent amount approved to support the changing areas of focus in the new areas.

The Panel agrees with the CEC that given the new/incremental nature of the approved funding to be included in Base O&M and the impact on formula O&M in the MRP plan, it is appropriate for FEI to include independent reporting on this spending in the first Annual Review of the MRP term. **Accordingly, the Panel directs FEI to provide the following information related to System Operations, Integrity and Security expenditures in its future revenue requirements applications over the term of the Proposed MRPs:**

- 1. A breakdown and explanation of both annual and cumulative variances between forecast/actual and formula O&M related to System Operations, Integrity and Security expenditures, which quantify the variances attributable to the following areas:**
 - **Integrity management;**
 - **Maintaining system infrastructure;**
 - **Operations compliance and safety;**
 - **Cyber security;**
 - **Data analytics;**
 - **Gas control;**
 - **Canadian Energy Pipelines Association (CEPA) participation; and**
 - **Any other significant factors or miscellaneous items.**
- 2. A description of how FEI is prioritizing its System Operations, Integrity and Security expenditures.**

FBC Incremental Funding Requests

As shown in Table 33 above, FBC requests new funding of \$0.763 million to be added to 2019 Base O&M. FBC states that it requires incremental funding to address issues and challenges in its operating environment, continue to maintain its service levels to customers and address increasing customer expectations.

FBC provided a breakdown of the new funding into two categories: 1) Engagement (\$0.080 million); and 2) System Operations, Integrity and Safety (\$0.683 million).⁴⁵⁷

The new funding requests related to Engagement are explained in the FEI subsection above and relate to FBC's portion of the funding to support a new Digital Communications Advisor and additional in-house resources to address customer preferences (i.e. one Digital Advisor and one Communications Writer/Researcher).

With respect to new funding for System, Operations, Integrity and Security, FBC provided Table 38 below, providing a summary of the funding requests, including the historical expenditures in these areas since the start of FBC's Current PBR Plan and the available funding in 2019:

⁴⁵⁷ Exhibit B-1, Table C2-15, p. C-47.

Table 38: FBC New Funding for System Operations, Integrity and Security⁴⁵⁸

	Historical Expenditures (\$ millions)					Base	Proposed	Proposed
	2014	2015	2016	2017	2018	2019	2019	Incremental
System Operations, Integrity and Safety								
Tree Management	\$ 0.763	\$ 0.585	\$ 0.186	\$ 0.184	\$ 0.185	\$ 0.268	\$ 0.343	\$ 0.075
Generation Dam Safety	\$ 0.015	\$ 0.042	\$ 0.019	\$ 0.025	\$ 0.061	\$ 0.130	\$ 0.362	\$ 0.232
Network Operations Apprentice Program	\$ 0.036	\$ 0.071	\$ 0.080	\$ 0.054	\$ 0.139	\$ 0.068	\$ 0.265	\$ 0.197
Cyber Security	\$ -	\$ -	\$ -	\$ -	\$ 0.431	\$ 0.515	\$ 0.595	\$ 0.080
Data Analytics	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.099
Total	\$ 0.814	\$ 0.698	\$ 0.285	\$ 0.263	\$ 0.816	\$ 0.981	\$ 1.565	\$ 0.683

FBC submits that incremental funding is needed in tree management in order to respond to the high number of outages in the Kootenay area resulting from trees (from outside the boundaries of the Right of Way) falling on the conductor. Funding for generation dam safety is needed to enable FBC to better meet the requirements under the BC Dam Safety Regulation, which were significantly revised in 2016. The funding for the Network Apprenticeship Program is in response to the program not currently producing International Trade Administration apprentices at a rate that meets anticipated demand so FBC will use these funds to hire four additional apprentices. Funding needs for cybersecurity and data analytics are consistent with FEI's needs as explained above.⁴⁵⁹

In addition to the incremental funding requests, FortisBC states FBC's Base O&M is increased to reflect Manual Meter Reading costs since elimination of the use of FBC's Manual Meter Reading deferral account which was approved by BCUC Order G-40-19. Effective January 1, 2020, FBC will eliminate the use of the deferral account and include the cost of the meter reads in O&M expense, resulting in an increase in O&M expense to the 2019 Base O&M of \$0.180 million which is FBC's estimate of the cost to perform the meters reads.⁴⁶⁰

The Base O&M is also adjusted to reflect AMI Project cost reductions. Incremental O&M costs related to the implementation of the AMI project are being offset by post-implementation savings, resulting in a net decrease to O&M expense after implementation. FortisBC explains because of the high variability of AMI costs and savings during the implementation period, net AMI costs, including the costs of AMI-enabled billing options, were tracked outside of FBC's Current PBR Plan formula during the PBR term. As the AMI project is now complete, the ongoing savings of \$1.161 million have been incorporated into the Base O&M.⁴⁶¹

Positions of Interveners

MoveUP and BCSEA

MoveUP and BCSEA support all FBC incremental funding requests.⁴⁶²

CEC

The CEC opposes all FBC incremental funding requests for the same reasons as outlined in its argument for FEI's

⁴⁵⁸ Exhibit B-1, Table C2-16, C-47.

⁴⁵⁹ Ibid., p. C-48; Exhibit B-10, BCUC IR 22.6; FortisBC Final Argument, pp. 139–141.

⁴⁶⁰ Ibid., p. C-46.

⁴⁶¹ Ibid., p. C-46.

⁴⁶² MoveUP Final Argument, p. 14; BCSEA Final Argument, p. 19.

incremental funding requests.⁴⁶³ As it recommends for FEI, if any new funding is approved for FBC, it should be flowed through and specific reporting required during the Annual Review process.⁴⁶⁴

BCOAPO

BCOAPO supports most, but not all, of the FBC incremental funding requests. BCOAPO opposes the \$0.080 million in Engagement funding to support customer communications and a Customer Engagement targeted incentive. As noted for FEI, BCOAPO submits that either one or the other should be approved, and not both.⁴⁶⁵ In addition, BCOAPO submits that FBC's incremental funding request of \$0.197 million related to the "Network Operation Apprentice Program" is too high. In BCOAPO's view, the new funding should be "at most" \$0.100 million for the addition of four apprentices, given that \$0.139 million supported the training of six apprentices in 2018.⁴⁶⁶

FortisBC Reply Argument

FortisBC responds to BCOAPO stating that the increase in costs to develop apprentices is driven by the increased need for ongoing training to help transition FBC through the current period of high retirements and transitions. FBC estimates that approximately 60 employees will retire during the proposed MRP term, and of those 60 employees, 40 retirements are expected to occur within the Operations department. Given the number of retirements, FBC needs to produce approximately three apprentices per year. Proper training is needed to ensure that these apprentices are properly skilled and available to complete work on a cost-effective basis and in a timely manner.⁴⁶⁷

Panel Determination

The Panel approves the following incremental O&M funding for FBC:

- **Engagement - 50 percent of the incremental amount requested being \$0.040 million; and**
- **System Operations, Integrity and Safety – 100 percent of the incremental amount requested of \$0.683 million;**

The Panel's reasons for this determination are consistent with those set out in our earlier Determination on FEI's incremental O&M funding request above. The Panel has considered whether the amounts requested are clearly incremental to the existing funding level and if the amount requested is just and reasonable and necessary to ensure safe and reliable service.

Regarding the request for incremental System Operations, Integrity and Safety O&M funding, FBC has provided persuasive evidence that the incremental funding requirement results from changed operating conditions or evolving safety, reliability or regulatory requirements. Accordingly, the Panel finds FBC's request for this incremental funding to be necessary to ensure safe and reliable service and the amounts requested to be just

⁴⁶³ CEC Final Argument, p. 22.

⁴⁶⁴ Ibid.

⁴⁶⁵ BCOAPO Final Argument, p. 10.

⁴⁶⁶ Ibid., p. 11.

⁴⁶⁷ FortisBC Reply Argument, pp. 72–73.

and reasonable for inclusion in the FBC 2019 Base O&M. Further, in the Panel's view, FortisBC's reply argument to BCOAPO addresses the concerns raised.

The Panel agrees with the CEC that given the new/incremental nature of the approved funding to be included in Base O&M and the impact on formula O&M in the MRP plan, it is appropriate for FBC to independently report on this spending in the first Annual Review of the MRP term. **Accordingly, the Panel directs FBC to provide the following information related to System Operations, Integrity and Security expenditures in its future revenue requirements applications over the term of the Proposed MRPs:**

1. **A breakdown and explanation of both annual and cumulative variances between forecast/actual and formula O&M related to System Operations, Integrity and Security expenditures, which quantify the variances attributable to the following areas:**
 - **Tree management;**
 - **Generation dam safety;**
 - **Network operations apprentice program;**
 - **Cyber security;**
 - **Data analytics; and**
 - **Any other significant factors or miscellaneous items.**
2. **A description of how FBC is prioritizing its System Operations, Integrity and Security expenditures.**

4.1.2 Panel Determination on Base O&M per Customer

Subject to the adjustments determined by the Panel in Subsection 4.1 above and its determinations 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.

4.2 Forecast O&M Expenditures

FortisBC proposes to continue to annually forecast certain O&M expenditures which are excluded from formula O&M. FortisBC requests that the following items be forecast each year, for inclusion in rates for the forecast year, subject to approval by the BCUC during the Annual Review process in the Proposed MRPs:

- Pension and OPEB expenses;
- Insurance premiums;
- BCUC levies;
- FEI integrity digs;
- O&M (and the cost of service of related capital expenditures) to support investments in a clean growth future. This currently includes NGT fueling stations and tankers, variable LNG production costs, RNG, and EV charging stations. However, FortisBC may propose to add other initiatives to this category over the term of the Proposed MRPs; and

- Incremental costs to comply with changes in regulation and policies such as legislatively mandated federal, provincial and municipal climate policy and with new MRS.⁴⁶⁸

In FortisBC’s submission, these items should be forecast because they are largely outside of the control of the Utilities or are related to driving incremental revenues (which are flow-through) and supporting a transition to a lower carbon energy system.⁴⁶⁹ From the list above, the new forecast items in the Proposed MRPs are: BCUC levies for FBC, integrity digs for FEI, variable LNG costs for FEI, RNG program costs for FEI, EV charging stations for FBC, and incremental costs to comply with legislatively mandated federal, provincial and municipal climate policy for FEI and FBC.⁴⁷⁰ Consistent with the Current PBR Plans, FortisBC proposes to continue with the flow-through or exogenous factor treatment for all variances from forecast in the items listed above over the term of the Proposed MRPs.⁴⁷¹

Positions of Interveners

In the CEC’s view, the forecast O&M expenditures are likely acceptable.⁴⁷² No other interveners comment on the proposals related to O&M forecast outside of the formula other than the ICG, which makes its submissions on the proposed deferral account treatment.⁴⁷³

Panel Determination

The Panel agrees these proposed forecast O&M expenditures are not conducive to being included in an index-based O&M formula because they are either tied to parts of the business that are changing in response to government policy or are otherwise outside the control of management. Accordingly, the Panel finds it is appropriate for these O&M items to be forecast annually, for inclusion in rates for the forecast year, subject to approval of the forecast amounts by the BCUC during the Annual Review process. The Panel’s consideration of the related variance deferral account treatment of these items is included in Subsection 3.2.8.

4.3 FEI’s Growth Capital Base Unit Cost

In this Subsection, the Panel reviews FortisBC’s proposals for determining the Base Unit Cost for FEI’s Growth capital formula, including the following:

- Whether FortisBC’s proposal to use an average of the 2016-2018 actual unit costs results in a unit cost that is representative of the cost to serve new customers; and
- If so, whether the proposed adjustments to the average 2016-2018 actual unit cost are warranted.

The proposal is to set FEI’s Growth capital Base Unit Cost for 2020 starting with the average 2016-2018 actual unit costs. FortisBC submits that this amount is representative of FEI’s level of capital investment required to provide service to new customers.⁴⁷⁴

⁴⁶⁸ Exhibit B-1, p. C-110.

⁴⁶⁹ Exhibit B-10, BCUC IR 63.2.

⁴⁷⁰ Exhibit B-1, pp. C-111–C-114.

⁴⁷¹ *Ibid.*, p. C-110.

⁴⁷² CEC Final Argument, p. 9.

⁴⁷³ ICG Final Argument, pp. 14–18.

⁴⁷⁴ Exhibit B-1, p. C-60.

FortisBC proposes two adjustments to the 2016-2018 average actual unit cost to arrive at the '2019 Base unit cost'. The goal of these proposed adjustments is to determine the appropriate starting point for Growth capital unit costs for the Proposed MRP, incorporating known and measurable adjustments. These adjustments include adding an incremental \$9.1 million for construction price increases and an incremental \$642 thousand for Muster Kit & Material allocation impact. The following table outlines the proposed calculation of Base Unit Cost:

Table 39: FEI Growth Capital Proposed Base Unit Cost⁴⁷⁵

Line	Growth Capital (\$000)	2016 Actual	2017 Actual	2018 Actual	Average	Reference
1	New Customer Mains	\$ 12,823	\$ 16,467	\$ 24,494		
2	New Customer Services	31,246	39,149	53,993		
3	New Customer Meters	3,430	3,927	4,397		
4	System Improvements (DP)	2,953	3,566	4,433		
5	Subtotal Growth (Gross)	\$ 50,452	\$ 63,108	\$ 87,316		Sum of Lines 1 through 4
6	CIAC	(2,505)	(2,770)	(2,529)		
7	Total Growth (Net of CIAC)	\$ 47,947	\$ 60,339	\$ 84,787		Line 5 + Line 6
8	Inflation Adjustment	107.30%	104.86%	102.08%		
9	Infl Adj Growth (Net)	\$ 51,447	\$ 63,271	\$ 86,551	\$ 67,090	Line 7 x Line 8
10	Gross Customer Additions	17,261	20,825	22,439	20,175	
11	Unit Cost Growth Capital \$/CGA (Net of CIAC)				\$ 3,325	Line 9 / Line 10
12						
13	Construction Price Increase				\$ 9,146	
14	Muster Kit & Material alloc impact				642	
15	Incremental				\$ 9,787	Line 13 + Line 14
16	Average Gross Customer Additions				20,175	Line 10
17	Unit Cost Growth Capital \$/CGA Incremental				\$ 485	Line 15 / Line 16
18						
19	Total Unit Cost Growth Capital \$/CGA (Net of CIAC)				\$ 3,811	Line 11 + Line 17

In response to BCUC IRs, FortisBC noted that line 14 of the table above should be approximately \$300 thousand, rather than \$642 thousand, and that the Growth capital Base unit cost will be updated for this correction in the compliance filing following the Decision for this proceeding.⁴⁷⁶

FortisBC explains the proposed \$9.1 million adjustment for construction price increases, as follows:

- Contractor Price Increases (\$6.1 million) - incorporates an increase in the average construction price of approximately nine percent in 2020 as compared to the 2016-2018 average in aggregate across all the Growth capital activities. FortisBC submits that FEI's mains and services contracts are awarded on a three-year term, and were competitively bid in 2018, with the new pricing coming into effect in 2019. FortisBC submits that given the recent competitive bid process for mains and services contracts, it is unlikely to see lower contractor pricing over the term of the proposed MRP.⁴⁷⁷
- Regional Growth Activity (\$597 thousand) – reflects the sustained growth and higher contract pricing on Vancouver Island due to the subsurface conditions and the municipal, pavement, and traffic control requirements on Vancouver Island. FortisBC states its contractors have increased their pricing for work on Vancouver Island by 13 percent, compared to 10 percent for the Interior and Lower Mainland.⁴⁷⁸

⁴⁷⁵ Exhibit B-1, Table C3-3, p. C-61.

⁴⁷⁶ FortisBC Final Argument, p. 142.

⁴⁷⁷ Ibid., p. 149.

⁴⁷⁸ Ibid.

- Field Quality Assurance (\$1.5 million)– FortisBC submits it is conducting increased field audits of Growth capital construction to continue to ensure quality requirements are met and to maintain documentation and records quality. The number of field audits rose due to the steady and significant increase in new customer additions.⁴⁷⁹
- Testing Installations (\$943 thousand) – FortisBC submits that these are due to increased time to test installations pursuant to increased requirements under CSA Z662.⁴⁸⁰

Further, FortisBC requests an adjustment for Muster Kit and Material Allocation (\$300 thousand). These are explained as the standard parts and fittings for routine work that are stocked in bulk at local musters and allocated out to completed jobs. FortisBC explains the muster kit material charge for services was increased in 2018 to better reflect the actual cost for the materials used in an average service installation.⁴⁸¹

It is FortisBC’s submission that the 2016-2018 actual unit costs as a starting point are representative of FEI’s current level of capital investment required to provide service to new customers and are also consistent with FEI’s internal Growth capital forecasting methodology.⁴⁸²

Positions of Interveners

BCSEA

BCSEA does not oppose FortisBC’s proposal to use the 2016-2018 average Growth capital as the starting point for determining FEI’s Base Growth capital, although it recognizes that other starting points could be appropriate.⁴⁸³ With respect to the adjustments to the 2016-2018 average Growth capital, BCSEA acknowledges that in principle, the factors outlined by FortisBC justify an adjustment of the starting point. However, it takes no position on the size of the adjustments proposed by FortisBC.⁴⁸⁴

CEC

The CEC submits that FortisBC’s proposal to set a unit cost for Growth capital with a couple of upward adjustments, and then inflate the base by inflation is inappropriate. The CEC argues that inflation rates essentially reflect all of the cost changes over time and should not be augmented with specific additions.⁴⁸⁵

FortisBC Reply Argument

FortisBC states that the CEC’s rationale for Base Growth capital not being augmented to a higher level is not clearly articulated, but appears to be rooted in its general opposition to the use of an index-based approach with an inflation factor.⁴⁸⁶ FortisBC reiterates that FEI’s Growth capital is suitable for an index-based approach because it has a clear and direct connection to a cost driver.⁴⁸⁷

⁴⁷⁹ FortisBC Final Argument, p. 150.

⁴⁸⁰ Ibid., p. 151.

⁴⁸¹ Ibid., p. 152.

⁴⁸² Ibid., p. 146.

⁴⁸³ BCSEA Final Argument, p. 22.

⁴⁸⁴ Ibid., pp. 22-23.

⁴⁸⁵ CEC Final Argument, p. 47.

⁴⁸⁶ FortisBC Reply Argument, p. 74.

⁴⁸⁷ Ibid., p. 29.

In reply to the CEC's assertion that no adjustments should be made to FEI's Base Growth capital, FortisBC submits it is essential that the 2019 Base Growth capital forms a reasonable starting point for FEI's Growth capital formula, and that otherwise, growth capital will remain underfunded for the Proposed MRP term and would compromise FEI's opportunity to earn a fair return. FortisBC further submits that its approach to setting the Base Growth capital has essentially been a COS approach, and accurately reflects FEI's unit costs going into the MRP. FortisBC further submits that the CEC's objection to the proposed adjustments is unsupported and should be rejected.⁴⁸⁸

Panel Determination

The Panel approves FortisBC's proposal to use an average of the 2016-2018 actual unit costs for determining the Base Unit Cost for FEI's Growth capital formula. The Panel notes there is variation in the actual cost to attach customers. Accordingly, the Panel considers that using an average cost of actual costs over a recent three-year period is a reasonable approach to calculate a representative cost.

The Panel approves FortisBC's proposal to adjust the 2016-2018 average actual unit costs for the increase related to the contractor pricing, regional growth activity and testing installations. These incremental increases are supported by a competitive bid process or relate to new requirements and would be not be reflected in the actual costs used to calculate the 2016-2018 average used to determine Base Unit Cost.

The Panel rejects FortisBC's proposal to adjust the 2016-2018 average actual unit costs for an increase in the field quality assurance costs and for muster kit & material allocation. The Panel does not view these items as new incremental costs, since there is a muster kit material charge and field quality assurance services costs already reflected in the actual costs used in the calculation of the 2016-2018 average used to determine Base Unit Cost. In this case, the Panel agrees with the CEC's view that inflation rates essentially reflect the cost changes for these items over time.

The Panel approves FEI's 2019 Growth Capital Base Unit Cost, subject to the recalculation of the unit cost amount for the Panel's rejection of FEI's requests for adjustments related to field quality assurance costs and the muster kit & material allocation. The Panel directs FortisBC to provide an updated 2019 Growth Capital Base Unit Cost for FEI as part of the compliance filing relating to this Decision.

4.4 Forecast Capital Expenditures

In this Subsection, the Panel reviews FortisBC's proposals for forecast expenditures including the following:

- Whether a change from an index-based approach to a forecast approach for FEI Sustainment and Other and FBC Regular capital expenditures is warranted;
- If a forecast approach is warranted, is a three-year forecast period is appropriate; and
- Are FortisBC's forecast capital expenditures reasonable for inclusion in rates.

The Panel's review of the incentive mechanism associated with forecast capital expenditures is set out in Subsection 3.2.9.

⁴⁸⁸ FortisBC Reply Argument, p. 74.

Forecast Approach to Capital

In the Proposed MRPs, FortisBC recommends that the majority of capital expenditures be determined using a five-year forecast of capital expenditures. Fortis BC seeks approval of its forecast FEI Sustainment and Other capital expenditures⁴⁸⁹ and FBC Regular capital expenditures⁴⁹⁰ for the period 2020 to 2024, to be incorporated into FEI's and FBC's rates in the Proposed MRPs, respectively.

FortisBC also proposes to review its forecast capital in 2022 and, if necessary, file an updated forecast in the Annual Reviews for 2023 rates to account for any material changes to the forecasts that occur over that time period.⁴⁹¹

FortisBC states that its five-year forecast approach is responsive to stakeholder concerns and provides value to customers and FortisBC, including:

- Reduced regulatory costs and internal efficiencies;
- Greater certainty and the ability to manage capital efficiently with a long-term view; and
- A sustained incentive to contain FEI Sustainment and Other capital expenditures and FBC Regular capital expenditures within approved levels over the Proposed MRP term.⁴⁹²

In its view, the index-based approach to capital used in the Current PBR Plans assumes the continuation of "business as usual" capital expenditure trends. FortisBC argues using such an approach does not easily allow for fluctuations in levels of capital expenditures that result from new information and factors other than growth or the total number of customers. FortisBC states changing stakeholder expectations and requirements are also not reflected in capital formulas.⁴⁹³

According to FortisBC, using a bottom-up approach to forecast capital expenditures is responsive to identifiable challenges and therefore preferable. FortisBC also points out that capital expenditures are forecast by utilities in other jurisdictions with large capital portfolios, including Ontario's custom incentive rate-setting Plan, the Enbridge Distribution 2014-2018 MRP and the Hydro Quebec Transmission MRP.⁴⁹⁴ Further, FortisBC states that a five-year forecast addresses some stakeholder requests for increased transparency in setting the capital forecast.⁴⁹⁵

⁴⁸⁹ Exhibit B-1, p. C-63; FEI's Regular capital expenditures are divided into the following categories: Growth capital, which consists of expenditures for the installation of new mains, services, meters, and distribution system improvements to support customer additions; Sustainment capital, which consists of expenditures for meter exchange programs, replacements and upgrades to the distribution and transmission systems related to safety, integrity and reliability, and expenditures for mains and service renewals and alterations; and Other capital, which consists of expenditures for information systems, equipment (including fleet vehicles) and facilities (Exhibit B-1, p. c-55).

⁴⁹⁰ Exhibit B-1, p. C-80; FBC's Regular capital expenditures are divided into the following categories: Growth capital, which consists of expenditures for infrastructure upgrades required to meet demand for new customers and/or load growth; Sustainment capital, which consists of expenditures for system reinforcements, asset replacements and upgrades to the generation, transmission and distribution assets, to ensure safety, integrity and reliability; and Other capital, which consists of expenditures for information systems, equipment and facilities (Exhibit B-1, pp. C-80–C-81).

⁵⁰¹ Exhibit B-1, p. A-8

⁴⁹² FortisBC Final Argument, p. 155.

⁴⁹³ Ibid., p. 157.

⁴⁹⁴ Ibid., p. 158.

⁴⁹⁵ Ibid., p. 160.

FEI Forecast Sustainment and Other Capital

The variance between actual and formula-driven amounts for the FEI Sustainment and Other capital category subject to the 2014 to 2019 PBR formula is as follows:

Table 40: FEI Sustainment and Other Capital Variance* from 2014 to 2019 (\$ millions)⁴⁹⁶

Year	Sustainment and Other Capital			% variance to formula
	Actual	Formula	Variance	
2014	100.168	98.343	(1.825)	1.9%
2015	107.803	110.901	3.098	2.8%
2016	114.641	112.053	(2.588)	2.3%
2017	139.416	113.104	(26.311)	23.3%
2018	150.329	114.596	(35.733)	31.2%
2019P	144.359	117.116	(27.243)	23.3%
Total	756.655	666.113	(90.542)	13.6%

* Excluding pension and OPEB

FortisBC explains that the biggest contributor to the variance related to the addition of FEVI and FEW to FEI's formula capital base in 2015 and the BCUC's⁴⁹⁷ decision on the FortisBC Energy Inc. Proposal to include Vancouver Island and Whistler into the 2014-2019 PBR Plans. It directed FEI to set FEVI's sustainment capital base using a five-year average of FEVI's actual sustainment capital expenditures, without any adjustment for inflation or other factors. The BCUC further reduced FEVI's previously approved 2014 Sustainment capital by \$6.3 million, which resulted in a similar reduction to Base capital expenditures for 2015 and each of the remaining years in the Current PBR Plan. FortisBC states FEI was not able to overcome this significant reduction.⁴⁹⁸

In the 2014-2016 period, FortisBC states FEI attempted to manage the pressures being experienced in Growth capital by reprioritizing some Sustainment and Other capital projects that were assessed as having some flexibility in timing to future years. However, as high volumes of customer additions continued to create pressures in Growth capital, it became difficult to continue to offset those costs. FEI submits that this resulted in higher spending levels in 2017-2019 relative to 2014-2016, and these higher levels are more consistent with the longer-term system requirements.⁴⁹⁹

Under the Proposed MRPs, FortisBC explains that it maintains Sustainment and Other capital spending increases at a level less than inflation over the course of the 2020-2024 term. While fluctuations in capital spend from year to year are at times greater than inflation, the cumulative capital expenditure forecast from 2020-2024 represents less than annual inflationary increases over that term.⁵⁰⁰ FortisBC also provides a summary of FEI Sustainment and Other capital over the proposed 2020-2024 term:

⁴⁹⁶ Exhibit B-1, Table B2-5, p. B-36.

⁴⁹⁷ Order G-106-15.

⁴⁹⁸ Exhibit B-1, p. B-36.

⁴⁹⁹ FortisBC Final Argument, p. 168.

⁵⁰⁰ Ibid.

Table 41: FEI Sustainment Capital Expenditures 2020-2024 (\$000's)⁵⁰¹

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

Table 42: FEI Other Capital Expenditures 2020-2024 (\$000's)⁵⁰²

	Average 2017-2019P	2020	2021	2022	2023	2024
Equipment	13,919	15,106	13,378	12,288	12,100	12,110
Facilities	5,099	6,356	7,977	5,760	6,803	5,636
Information Systems	23,952	28,308	28,561	28,426	27,500	27,605
Total Other Capital	42,970	49,770	49,916	46,474	46,403	45,351

FEI's forecast is detailed in Section 3.3 of the Application and additional information is provided in responses to information requests.

FEI disagrees with Bell's characterization of FEI's capital expenditures as "increase[ing] dramatically" since planned expenditures trend downward when stated in real dollars. FortisBC also submits that it is more relevant to compare planned expenditures to expenditures in 2017 to 2019, which are more consistent with longer-term system requirements. FortisBC submits that, when adjusted to reflect FortisBC's weighted labour and materials index in 2020 dollars, FEI's average annual Sustainment and Other capital expenditures are forecast to increase by only 1.06 percent when compared to the same category of expenditures during the 2017-2019 period.⁵⁰³

FBC Forecast Regular Capital Expenditure

In the Current PBR Plan, a single formula was applied to FBC's formula capital, which included Growth capital, Sustainment capital, or Other capital. The following table shows FBC's capital spending from 2014 to 2019:

⁵⁰¹ Exhibit B-1-2, Table C3-7, p. C-65.

⁵⁰² Exhibit B-1, Table C3-17, p. C-73.

⁵⁰³ FortisBC Final Argument, pp. 168-169.

Table 43: FBC Capital Expenditure Variances 2014 to 2019 (\$ millions)⁵⁰⁴

Year	Capital Expenditures			% variance to formula
	Actual	Formula	Variance	
2014	42.665	42.193	(0.472)	1.1%
2015	44.791	42.384	(2.408)	5.7%
2016	45.838	42.874	(2.964)	6.9%
2017	59.053	43.254	(15.799)	36.5%
2018	60.187	43.818	(16.369)	37.4%
2019P	56.500	44.862	(11.638)	25.9%
Total	309.034	259.385	(49.649)	19.1%

FortisBC explains that like FEI, FBC faced challenges in keeping the level of capital expenditures required to meet customer growth and to maintain its capital assets within the formula capital amounts. FortisBC states FBC attempted to mitigate some of these challenges through measures such as initiating projects earlier in the planning process in order to better assess and schedule resourcing requirements for design and construction. Projects and programs were also prioritized to allow for early engineering and design and optimized procurement of equipment and contracting services, and further, when possible, FBC combined projects into one construction schedule to reduce shut down and start up operational costs. However, FortisBC states that the cost pressures exceeded FBC’s ability to re-prioritize or defer further work within the formula capital spending envelope, while completing essential and mandatory work. FortisBC submits that the resulting increase in Sustainment activities, combined with Growth capital pressures, resulted in FBC’s capital expenditures being above the formula for the term of the Current PBR Plans.⁵⁰⁵

With respect to Growth capital, FortisBC explains that FBC’s Growth capital consists of discrete projects, and thus annual expenditures in this category are variable over the Proposed MRP term.⁵⁰⁶ It argues that attempting to fashion a formula for capital expenditures that demonstrate such variability is challenging. FortisBC submits that unlike FEI’s Growth capital, FBC’s electric system capacity additions are generally comprised of discrete projects of sufficient size to meet future load growth, as opposed to small incremental additions. It explains that this leads to the variability and is the reason is why FBC’s Growth capital is not conducive to an index-based approach.⁵⁰⁷

A summary of FBC’s 2020-2024 forecast expenditures for Regular capital is as follows:

Table 44: FBC Regular Capital Expenditures 2020-2024 (\$000s)⁵⁰⁸

	Average					
	2017-2019P	2020	2021	2022	2023	2024
Growth Capital	\$ 21,285	\$ 27,029	\$ 23,042	\$ 24,339	\$ 26,283	\$ 23,170
Sustainment Capital	30,403	50,743	50,098	43,110	44,657	53,901
Other Capital	13,683	15,752	14,712	14,756	15,281	15,134
Total Regular Capital	65,371	93,524	87,853	82,205	86,220	92,204

⁵⁰⁴ Exhibit B-1, Table B2-6, p. B-37.

⁵⁰⁵ Ibid., pp. B-37–B-38.

⁵⁰⁶ FortisBC Final Argument, p. 183.

⁵⁰⁷ FortisBC Reply Argument, pp. 82–83.

⁵⁰⁸ Exhibit B-1, Table C3-21, p. C-81.

The FBC forecast Regular capital is presented in further detail in Section 3.4 of the Application and additional information is provided in responses to information requests. In the Application, FBC discusses the larger projects that fall under Transmission Growth capital, Distribution Growth capital, FBC Sustainment capital in Section 3.4.1.2, and FBC Other capital.

Large projects for Transmission Growth include the Sexsmith 2nd Transformer Addition (\$4.6 million in the Proposed MRP), Summerland Transformer Replacement (\$2.6 million), Beaver Park Substation Upgrade (\$7.9 million), and DG Bell Second Transformer Addition (\$5.4 million).⁵⁰⁹ Large projects for Distribution Growth includes the DG Bell Feeder 4 Addition (\$2 million).⁵¹⁰

With regards to Sustainment Capital, Generation Sustainment Capital includes \$14.7 million for Hydraulic Dam Structures (annual average of \$2.9 million compared the 2017-2019 average of \$1.3 million), and \$8.6 million for Generating Equipment (annual average of \$1.7 million compared to the 2017-2019 average of \$0.6 million). Transmission Sustainment Capital includes \$24.8 million for Transmission Line Rehabilitation (annual average of \$4.9 million compared to the 2017-2019 average of \$3.2 million). Stations Sustainment includes \$8.8 million for Transformer Replacements (annual average of \$1.8 million compared to the 2017-2019 average of \$0.4 million). Distribution Sustainment includes \$17 million for Porcelain Cutouts Replacement (annual average of \$3.4 million, compared to no expenditures in the 2017-2019 timeframe).⁵¹¹

FortisBC submits that its five-year forecast of FBC Regular capital expenditures results from a robust capital planning process that is based on a thorough assessment and prioritization of FBC's systems and operational needs. It explains the forecast relies primarily on a bottom-up forecast of individual asset needs, which have been prioritized in an effort to increase efficiency and minimize customer rate impacts.⁵¹² Further, FortisBC explains that in estimating the total funds required to complete a given project, it includes contingency amounts in order to mitigate the impact of uncertainties which are likely to create additional costs. FortisBC states it expects that contingency amounts will be expended and denies that it included an "uncertainty premium" in its forecast.⁵¹³

The increase in Regular capital for the Proposed MRP term compared to the 2017-2019 period, is driven by discrete and non-recurring projects which FortisBC states have been subject to extensive review and justification. FortisBC argues that, given the impact of these types of projects on FBC's capital forecast, historical spending is not, in all cases, a reliable basis on which to evaluate future spending. FortisBC further states that these projects make up 26 percent of FBC's Regular capital forecast, an increase of 15 percent when compared to FBC's capital requirements during the 2017-2019 period. Projects of this kind are primarily driven by increasing demand for electricity, the need to upgrade or replace infrastructure to ensure safe and reliable service, and by new legislative requirements.⁵¹⁴

⁵⁰⁹ Ibid., p. C-82.

⁵¹⁰ Ibid., p. C-83.

⁵¹¹ Ibid., pp. C-84–C-101.

⁵¹² FortisBC Final Argument, p. 161.

⁵¹³ Ibid., pp. 162–163.

⁵¹⁴ FortisBC Final Argument, p. 179.

Positions of Interveners

MoveUP

MoveUP agrees that a properly done forecast will likely be more accurate than a formula index for estimating capital requirements and that an inflation-driven index for all capital would fail to account for FortisBC's particular physical circumstances, asset mixes, asset life cycles, and system designs.⁵¹⁵ MoveUP submits the forecasts are reasonable and the risk that forecasts are materially overstated is likely small. Further, the ESM essentially cuts the risk in half, by returning 50 percent of any benefit to the customers.⁵¹⁶

BCSEA

BCSEA supports this 'cost of service approach' to forecasting capital and agrees with FortisBC's observation that the collective experience of utilities and regulators has demonstrated that the treatment of capital under multi-year ratemaking plans is challenging.⁵¹⁷ BCSEA takes no position on the quantum of the capital forecast.

BCSEA views it as a positive aspect that any variance between forecast and actual capital will be subject to the 50/50 ESM, as in a formula-driven approach, and agrees it will incent the utilities to achieve efficiencies that will be shared equally between FortisBC and ratepayers.⁵¹⁸

BCOAPO

BCOAPO points out that during the Current PBR Plans actual capital expenditures exceeded the formula by approximately 19 percent for FBC and submits that given the variances, the change in approach regarding the treatment of FBC's Regular capital spending is reasonable. BCOAPO notes the capital forecast is developed largely on a "bottom-up" basis based on known requirements.⁵¹⁹

With regards to FBC Growth capital, BCOAPO states the move to a five-year forecast impacts the incentive properties, and that there are trade-offs between operating and capital costs, that would cause the incentive properties to be muted if one were on a formula basis and the other is forecast.

BCOAPO points to Bell's statement that "the further out one forecasts, the less reliable the forecast is, and the more an uncertainty premium one puts in the forecast."⁵²⁰ BCOAPO submits that even if there is no explicit adjustment, there most certainly is an implicit adjustment included by the individual managers that prepared the forecast. Based on this, BCOAPO recommends that if the Proposed MRPs are approved, FortisBC should be ordered to return to an index-based approach to FBC Growth capital.⁵²¹

With regards to there being no "true-up" to capital spending forecast during the MRP period, BCOAPO states it is not clear whether the deferral or cancellation of a significant capital project included in the forecast would

⁵¹⁵ MoveUP Final Argument, p. 20.

⁵¹⁶ Ibid.

⁵¹⁷ BCSEA Final Argument, p. 24.

⁵¹⁸ Ibid.

⁵¹⁹ BCOAPO Final Argument, pp. 19–20.

⁵²⁰ Ibid., p. 53.

⁵²¹ Ibid.

cause rates to be adjusted if the change was due to circumstances beyond FBC's control. BCOAPO asks the BCUC to allow parties to explore such issues as part of the Annual Review process.⁵²²

CEC

The CEC submits that FEI and FBC forecast capital expenditures should be on a flow-through basis and not be included in the formula-based process with incentives attached to underspending, without a better understanding of whether the Utility is actually becoming more efficient and cost-effective.⁵²³

The CEC also does not accept FBC's approach of including its five-year forecast of capital without any metrics to evaluate the potential control of capital expenditures and their associated benefits. The CEC submits that the BCUC should deny the FBC's forecast approach all together.⁵²⁴

ICG

ICG points out that FBC's forecast capital expenditures for 2020 are \$120 million, a 30% increase from the 2017-2019 average of \$91 million. ICG argues that the proposed increase in Sustainment capital is not justified by the SAIDI and SAIFI reliability indices, and references FortisBC's argument that FBC's worst 2018 SAIDI performance was due to the earlier reporting of outages as a result of the implementation of the Outage Management System and the influence of wildfires. ICG submits that the proposed increases in Sustainment capital should be rejected until such time that either the reliability indices justify an increase, or root cause analysis of outages shows a direct correlation to equipment condition.⁵²⁵

Regarding FBC's submission that replacing the capital formula with a forecast will limit the risk of large variances, ICG states that under PBR, the risk of large variances should be borne by the shareholder. ICG states that FBC should not have both the benefit of incentives for capital expenditure and no formula. ICG states that for the years 2014-2016, FBC was able to manage its capital expenditures with limited variances from the capital formula amounts, and for the years 2017-2019, the largest annual variance from the annual average capital expenditure of \$91 million is \$3.3 million or 3.6 percent. ICG submits that this variance does not support FBC's contention that capital expenditures are "lumpy" and therefore cannot be subject to a formula.⁵²⁶

ICG further submits that either both the capital formula and the O&M formula should be preserved, or preferably both should be replaced with COS regulation, since changing one over the other is a selective revision. ICG states that in the event the BCUC approves the use of capital expenditures forecasts for the Proposed MRPs, there should be no ongoing incentive for capital expenditures. The annual forecast of capital expenditures should be included in the following year's rate base forecast, and rate base should subsequently be trued up to actual capital expenditures.⁵²⁷

⁵²² BCOAPO Final Argument, p. 19.

⁵²³ CEC Final Argument, p. 49.

⁵²⁴ *Ibid.*, p. 46.

⁵²⁵ ICG Final Argument, pp. 11–12.

⁵²⁶ *Ibid.*, p. 12.

⁵²⁷ *Ibid.*, p. 13.

FortisBC Reply Argument

In response to BCOAPO, FortisBC submits that the reference to Bell's experience at other companies has marginal relevance. FortisBC states it follows its own practices and submits it has described its capital planning process in detail in this proceeding. FortisBC explicitly denies that any "uncertainty premium" is included in its forecast.⁵²⁸ FortisBC also points to ICG's argument that capital forecasts often decline during a five-year period, because capital projects have not yet been fully considered in the latter years of the forecast period.⁵²⁹

FortisBC also explains that the use of a forecast approach does not dull the incentives properties of the Proposed MRPs, for the following reasons:⁵³⁰

- The variance between the forecast and actual amount is subject to the ESM;
- Elimination of the capital dead band as a safeguard increases the risks and rewards;
- Cost items such as depreciation expense that are currently subject to flow-through treatment will be subject to the ESM;
- The Proposed MRPs do not change the balance of risks and rewards in either the Utilities' or the customers' favour since the Proposed MRPs continue to maintain the 50/50 symmetric ESM;
- The proposed ECM will increase the incentives in the last two years of the Proposed MRP; and
- The more stringent SQI's will increase the risk of penalties.

FortisBC responds to the CEC by stating that the CEC has not explained the metrics it is referring to and argues that the CEC's position is obscure. FortisBC states that under the Proposed MRPs, FBC will have an incentive to keep its actual capital expenditures within this forecast amount, like a COS approach, except that variances will be shared 50/50 with customers pursuant to the ESM.⁵³¹

In reply to ICG, FortisBC states its proposed forecast approach is in response to the universally acknowledged challenges with managing capital under the formula for the Current PBR Plans. It also notes that a forecast approach to capital has been used in MRPs in other jurisdictions, such as Ontario, Quebec, and New York. FortisBC explains that the Proposed MRPs address the concern regarding trade-offs between O&M and Capital by including the same ESM for both index-based FEI Growth capital and forecast capital expenditures.⁵³²

FortisBC concludes that the unsupported claims made by interveners about its capital expenditure forecasts are without any evidentiary support and must be given little, if any, weight in comparison to FortisBC's evidence in this proceeding. FortisBC states that no material issues were raised through IRs or in intervener argument with respect to any specific aspect of FortisBC's forecast capital expenditures.⁵³³

⁵²⁸ FortisBC Reply Argument, p. 75.

⁵²⁹ *Ibid.*, p. 76.

⁵³⁰ *Ibid.*, p. 79.

⁵³¹ *Ibid.*, p. 76.

⁵³² *Ibid.*, p. 77.

⁵³³ *Ibid.*, p. 77.

Panel Determination

The Panel approves FortisBC's proposal to use a forecast approach for FEI Sustainment capital and FBC Regular capital. The Panel acknowledges the challenges experienced in the Current PBR Plans as demonstrated by the significant variances between formula and actual capital expenditures. An index-based approach does not easily accommodate fluctuations in expenditures. Such an approach is not necessarily responsive to asset condition, changes in the technology or the operating environment, evolving legislation and public policy and unforeseen expenditures not reflected in formulaic adjustments. FortisBC's evidence highlights that capital expenditures may result from necessary upgrades to assets to meet changing requirements or equipment replacements necessary to address safety, aging infrastructure and improve reliability regardless of the number of customers.

In the Panel's view, the challenges with the Current PBR Plans and consideration of the approach in other jurisdictions show there is no ready solution to address the issues of developing a formula for all capital expenditures. For the reasons discussed above, the Panel finds the proposed forecast approach for FEI Sustainment and Other capital expenditures and FBC Regular capital expenditures is reasonable. The Panel notes a forecast approach is also used in other jurisdictions operating with an incentive or PBR plan.

The Panel is satisfied that the proposed forecast approach for capital does not overly dampen the overall incentives for the Proposed MRPs as submitted by BCOAPO, provided the forecasts have been demonstrated to be reasonable and the ESM is properly structured. As BCSEA and MoveUP point out, similar to an index-based approach, the impact of variances between forecast and actual capital expenditures can be subject to an ESM which can (and should) incent FEI and FBC to achieve efficiencies. The Panel's review of the appropriate structure of an ESM related to forecast capital expenditures is considered further in Subsection 3.2.9.

The CEC and ICG submit that there should be a flow-through or true-up mechanism for forecast capital expenditures. The problem with this is that such an approach would remove the incentive value related to controlling capital within the Proposed MRPs. However, we agree that reliance on a five-year forecast to be equally fraught with challenges related to reliability as was pointed out by Bell.

Given these opposing concerns, the Panel directs FortisBC to file an updated forecast of the 2023 to 2024 capital expenditures in the 2023 Annual Review. As indicated by FortisBC, FEI and FBC face evolving operating environments and there are inherent uncertainties in the five-year forecast. Reviewing the capital forecasts in 2022 allows for a review of any significant variances between forecast and actual to date and provides an opportunity to true-up the rate-base for actual spending and to re-forecast the remaining years in the MRP term.

The Panel approves the level of forecast FEI Sustainment capital and FBC Regular capital to be incorporated in rates for the three-year period 2020-2022. The Panel finds that FortisBC's capital forecasts for the three-year period are reasonable given the evidentiary support provided by FortisBC in the Application and in IR responses. The Panel agrees with FortisBC that no material issues were raised through IRs or in Intervener arguments.

While ICG notes that FBC's forecast capital expenditures for 2020 are an increase over the average for the 2017-2019 period, in the Panel's view FortisBC has adequately supported FBC's capital expenditure forecast for 2020. ICG fails to provide any contrary evidence to indicate the FBC 2020 forecast is unreasonable. As BCOAPO points

out, FortisBC developed the capital forecast largely on a bottom-up basis based on known requirements. The Panel is persuaded by FortisBC's explanation that the increase in capital expenditures in FBC's Proposed MRP is driven by discrete and non-recurring projects.

4.5 Major Projects Capital

Major Projects are defined as capital expenditures that do not form part of Regular capital spending (Growth, Sustainment, and Other), as they are approved through a separate process, usually CPCN applications.⁵³⁴ For FEI, Major Projects generally have a cost greater than \$15 million, and for FBC Major Projects are projects in excess of \$20 million.

FortisBC states, as in the case of the Current PBR Plans, it will continue to seek approval of Major Projects by way of CPCN or an application under section 44.2 of the UCA. FortisBC is also proposing that the approved CPCN thresholds for FEI and FBC of \$15 million and \$20 million, respectively, continue for the proposed MRP term. FortisBC also submits it will bring forward any changes to O&M or Regular capital as a result of a Major Project in the appropriate rate-setting proceeding.⁵³⁵

Positions of Interveners

BCOAPO

BCOAPO submits that other parties should have the ability to identify, for BCUC's consideration, projects that a party considers warrant a CPCN application based on public interest issues. In order to do so, parties participating in the Annual Review process should be able to explore with FBC whether public interest issues have emerged regarding its capital spending plans and make submissions where warranted.⁵³⁶

CEC

The CEC submits that the current design with Major Project exclusion provides an opportunity for the Utility to manipulate spending to the benefit of the Utility. The CEC also states the CPCN thresholds are arbitrary.⁵³⁷

FortisBC Reply Argument

FortisBC responds by stating that under the Current PBR Plans, interveners have been able to ask IRs in the Annual Review process and to express their opinion on capital projects in their submissions, and FortisBC expects that this process will continue.⁵³⁸

Panel Determination

- **The Panel approves the continuation of the current process to review Major Projects outside of the Proposed MRPs; and**

⁵³⁴ Exhibit B-1, p. C-55.

⁵³⁵ FortisBC Final Argument, p. 201.

⁵³⁶ BCOAPO Final Argument, p. 19.

⁵³⁷ CEC Final Argument, p. 50.

⁵³⁸ FortisBC Reply Argument, p. 85.

- **The Panel also approves the establishment of CPCN thresholds for FEI and FBC of \$15 million and \$20 million, respectively, for the proposed MRP term.**

The proposed process and thresholds are consistent with previous BCUC approvals and none of the parties suggest any specific changes to them. Regarding BCOAPO's comment, FortisBC acknowledges that parties can raise issues in the Annual Review related to forecast projects below the thresholds where there may be public interest issues. The Panel notes that while the CEC has raised concerns with the exclusion of Major Projects, it did not provide any alternatives or suggest any changes beyond its overall position that capital expenditures should be excluded from "the formulaic portion of the regulation and that flowing capital expenditures through is the best solution."⁵³⁹ The CEC's objections are inconsistent with its overall view since Major Projects are excluded from the incentive elements of the Proposed MRPs.

4.6 Requested Approval of Supporting Studies

FortisBC seeks approval of five updated studies for both FEI and FBC and it submits these studies will result in a more representative calculation of FEI's and FBC's revenue requirements for the term of the Proposed MRPs. These studies update FortisBC's depreciation rates, lead-lag days, cash working capital, shared and corporate services and capitalized overheads.

Amongst the interveners, BCSEA takes no position regarding FortisBC's request for approval of five updated accounting studies⁵⁴⁰ and MoveUP and BCMEU made no comments on the supporting studies. The CEC submits that the Utilities have provided adequate evidence that the studies are consistent with industry practice and soundly conducted. The CEC recommends that the BCUC accept the studies as proposed by FortisBC.⁵⁴¹ BCOAPO makes comments on the Lead-Lag Study and Shared Services Study and states it has no issues with the Corporate Services Study.⁵⁴² ICG opposes the shift from a Timesheet approach to a Cost Driver approach regarding shared services.⁵⁴³

The Panel's review of the supporting studies and the issues raised by interveners are addressed below.

4.6.1 Depreciation Studies

The proposed updates to the depreciation rates and net salvage rates for FEI and FBC are based on the results of updated depreciation studies for FEI and FBC. FortisBC retained Concentric to perform a review of depreciation rates for both FEI and FBC. Concentric prepared the updated depreciation studies using plant balances as at December 31, 2017.

FEI currently uses the Average Life Group (ALG) method of depreciation. FEI was directed in Order G-119-16⁵⁴⁴ to evaluate the costs and benefits of converting from the ALG to the Equal life Group (ELG) method.

⁵³⁹ CEC Final Argument, p. 50.

⁵⁴⁰ BCSEA Final Argument, p. 63.

⁵⁴¹ CEC Final Argument, p. 89.

⁵⁴² BCOAPO Final Argument, pp. 36–38.

⁵⁴³ ICG Final Argument, p. 8.

⁵⁴⁴ FEI Proposal for Depreciation and Net Salvage Rate Changes, Order G-119-16 with reasons for decision dated July 28, 2016.

As directed, FEI completed research of the ELG method used by each of the major regulated gas utilities in Canada and completed the analysis of the costs and benefits of converting from the ALG depreciation method to the ELG depreciation method, including calculations of the rate impact.

FortisBC concludes it is appropriate for FEI to continue with the use of the ALG depreciation method as this method is practical and widely accepted in Canada. FortisBC states its research indicates that approximately half of the ten large Canadian natural gas distribution utilities are using the ALG method. It notes the remaining utilities have adopted ELG because this method better satisfies the requirements under IFRS for external reporting purposes. FortisBC states the ALG method is an acceptable depreciation method under US Generally Accepted Accounting Principles (US GAAP) and like the ELG method will result in the full recovery of the assets over the lives of the asset accounts.

In addition, FortisBC explains that continuing with the use of the ALG method avoids the increase in the depreciation rate and conversion expense and the resulting increase in customer rates from converting to the ELG method.⁵⁴⁵ FortisBC estimates the initial implementation of the change to the ELG method would result in a delivery rate increase of approximately four percent, excluding the impact of conversion costs.⁵⁴⁶

In FortisBC's view, the updated depreciation rates should be approved as they properly reflect the useful lives of its assets and result in a fair allocation and recovery of depreciation expense between current and future ratepayers.⁵⁴⁷

FortisBC states that Concentric's method of calculating FortisBC's depreciation rates is consistent with FortisBC's 2014 Depreciation Studies and industry practice. FortisBC summarizes that Concentric estimated the depreciation rates using the straight-line method and the ALG procedure applied on a remaining life basis for each depreciable group of assets.⁵⁴⁸ FortisBC explains the life and net salvage rates were developed using: various statistical methods such as lowa type survivor curves and "goodness of fit" criterion; a review of actual retirement activity; operational interviews with FEI and FBC staff; and Concentric's informed judgement based on its experience in the gas and electricity industries.⁵⁴⁹

Concentric explained that it applied experience in the utility industry and its professional judgement as a means in determining changes in salvage values, consistent with the guidance from authoritative texts in the industry. Concentric allocated net salvage costs during the life of the related plant though the use of the Traditional Method, which is an appropriate and equitable method and is the most widely accepted method within North America. The Traditional Method uses a six-step process, five of which use mathematical methods and one of which uses professional judgment to ensure that the historical data is properly interpreted, and trends are adjusted for accuracy.⁵⁵⁰

The implementation of the proposed rates from the FEI 2017 Depreciation Study results in a net increase of aggregate depreciation and net salvage expense of approximately \$3.5 million per year, a 0.08 percent overall

⁵⁴⁵ Exhibit B-1, pp. D30–D31.

⁵⁴⁶ Exhibit B-1, p. D-21.

⁵⁴⁷ FortisBC Final Argument, p. 275.

⁵⁴⁸ *Ibid.*, p. 276.

⁵⁴⁹ Exhibit B-1, p. D-2.

⁵⁵⁰ Exhibit B-12, BCUC IR 247 series.

increase to the composite depreciation rate compared to the current approved rates. An analysis of the impact is as follows:

Table 45: Impact of Implementing Depreciation Study Recommendations for FEI (\$ millions)⁵⁵¹

	Existing	Recommended	Change
Depreciation	\$ 176.7	\$ 169.0	\$ (7.7)
Net Salvage	\$ 33.9	\$ 44.8	\$ 10.9
CIAC	\$ (8.5)	\$ (8.2)	\$ 0.3
Total	\$ 202.1	\$ 205.7	\$ 3.5

For FBC, FortisBC outlines that implementation of the proposed rates from the FBC 2017 Depreciation Study results in a net increase of aggregate depreciation and net salvage expense of approximately \$2.2 million per year, an approximate 0.12 percent overall increase to the composite depreciation rate compared to the current approved rates. An analysis of the impact is as follows:

Table 46: Impact of Implementing Depreciation Study Recommendations for FBC (\$ millions)⁵⁵²

	Existing	Recommended	Change
Depreciation	\$ 43.0	\$ 43.2	\$ 0.2
Net Salvage	\$ 10.7	\$ 12.6	\$ 1.9
CIAC	\$ (3.9)	\$ (3.8)	\$ 0.1
Total	\$ 49.8	\$ 52.0	\$ 2.2

Intervenors did not raise any issues with respect to the depreciation studies.

Panel Determination

The Panel approves the changes to FEI’s depreciation rates in the amounts set out in Table D2-3 in Section D2 of the Application and to Net salvage rates in the amounts set out in Table D2-4 in Section D2 of the Application, to be used in the determination of rates for FEI effective January 1, 2020.

The Panel also approves the changes to FBC’s depreciation rates in the amounts set out in Table D2-10 in Section D2 of the Application and to Net salvage rates in the amounts set out in Table D2-12 in Section D2 of the Application, to be used in the determination of rates for FBC effective January 1, 2020.

The Panel agrees with the CEC that FortisBC has provided adequate evidence that the studies are consistent with industry practice and appropriately conducted. In the Panel’s view, FortisBC has demonstrated that using the rates in the studies should result in recognition of depreciation expense that will reasonably reflect the updated estimates of the useful lives of FEI and FBC’s assets and will result in a fair allocation and recovery of depreciation expense for the Proposed MRPs.

⁵⁵¹ Exhibit B-1, Table D2-1, p. D-3.

⁵⁵² Ibid., Table D2-8, p. D-23.

The Panel notes that the largest impact from the depreciation studies is an increase in Net Salvage for both FEI and FBC. The Panel acknowledges that these estimates rely on a considerable amount of professional judgment by both Concentric and FortisBC. Significant variances between estimated and actual Net Salvage could result in rates that either over or under collect future removal costs prior to actual costs being incurred and there is some risk of intergenerational inequity. However, in the Panel's view this risk can be mitigated through regular updates to the depreciation studies. **Accordingly, the Panel directs FortisBC to update the depreciation studies for FEI and FBC prior to or along with its next RRA following the Proposed MRPs.**

The Panel finds it is acceptable for FortisBC to continue to use the ALG method of depreciation. FortisBC's evidence supports the acceptability of the ALG method under US GAAP and demonstrates that it is commonly used by other utilities which also report under US GAAP. The Panel notes FortisBC's explanation that the ELG method is intended to reflect the expected physical retirement of the assets in each year and that the ALG method can result in lower depreciation of assets in earlier years, with a corresponding increase during the latter years of the assets' lives.⁵⁵³ However, since FortisBC performs ALG based studies on a relatively frequent basis, the Panel agrees that this likely offsets the theoretically more accurate benefits of the ELG method. The Panel agrees that any benefit associated with converting to the ELG method would largely be offset by conversion costs and rate impacts of the change.

4.6.2 Lead-Lag Studies

FortisBC requests approval of updated lead-lag days supported by the 2018 Lead-Lag Studies. FortisBC explains the studies are needed to provide a representative calculation of FEI's and FBC's cash working capital requirements for the term of the Proposed MRPs.

The previous lead-lag studies were conducted in 2009 and 2005 for FEI and FBC, respectively. FortisBC used the same methodology previously reviewed and approved in FEI's 2009 study. FortisBC states this methodology also generally reflects the approach used by utilities in other jurisdictions. Once approved, FEI and FBC will use the updated lead-lag days to calculate their cash working capital requirements in their respective compliance filings following the BCUC's Decision in this proceeding.⁵⁵⁴

FEI's 2018 Lead-Lag Study used 2017 data, the most recent full year of actual data. The study results in a reduction in the net lag, and thus a reduction in the cash working capital requirements of approximately \$1.1 million in cash working capital (\$3.9 million decrease from expenses partially offset by a \$2.8 million increase from revenues). FortisBC estimates that this will result in an \$84 thousand reduction in FEI's revenue requirement in 2020.⁵⁵⁵

FBC's 2018 Lead-Lag Study also used 2017 actual data to perform the analysis. The study results in an increase in net lag and working capital requirements of approximately \$1.3 million in cash working capital (\$1.6 million increase from revenues partially offset by a \$0.3 million decrease from expenses). FortisBC estimates that this will result in a \$105 thousand increase in FBC's revenue requirement in 2020.⁵⁵⁶

⁵⁵³ FortisBC Final Argument, p. 280.

⁵⁵⁴ *Ibid.*, pp. 280–281.

⁵⁵⁵ Exhibit B-1-3, p. D-33; Exhibit B-12, BCUC IR 249.4; FortisBC Final Argument, p. 281.

⁵⁵⁶ *Ibid.*, p. D-34; Exhibit B-12, BCUC IR 250.1; FortisBC Final Argument, p. 282.

Positions of Interveners

BCOAPO was the only intervener to comment specifically on the lead-lag studies. BCOAPO submits that since the number of customers on monthly billing for FBC impacts the study results, FBC should be required to report on changes in the percentage of customers on monthly billing as part of FBC's Annual Review and parties should be given the opportunity to make submissions on whether or not the revenue lag should be adjusted.⁵⁵⁷

FortisBC Reply Argument

In reply, FortisBC does not recommend that the FBC revenue lag be reviewed at each Annual Review since the impact of the entire updated study is only \$105 thousand to FBC's revenue requirement and updates to the revenue lag due to the change in percentage of customers on monthly billing are likely to be immaterial. FortisBC submits that the length of time since FBC's last lead/lag study in 2005 warranted an update but it would be a significant change in regulatory practice to examine the revenue lag every year. Further, FortisBC considers that if the lead/lag days are to be updated, they should be fully refreshed, rather than focusing on one variable, which could be offset by other changes in other variables if a full study were conducted. FortisBC therefore recommends instead that it refresh the lead/lag study again in 2025.⁵⁵⁸

Panel Determination

The Panel approves the modification to the approved Lead-Lag days as set out in Table D3-1, Section D3.2 of the Application. The Panel approves the modification to the Lead-Lag days for FBC as set out in Table D3-2, Section D3.3 of the Application. Approval of the modifications to the Lead-Lag days for FEI and FBC is warranted given the consistency of approach with previous studies and the modest size of the impact. The Panel notes that other than BCOAPO, interveners did not raise any specific issues relating to these studies.

We do not agree with BCOAPO's suggestion that FBC should report changes in FBC monthly customers in the Annual Review. As pointed out by FortisBC, the impact of such changes is likely to be minimal. Further, the Panel agrees with FortisBC that an update in 2025 is appropriate.

4.6.3 Shared and Corporate Services Studies

FortisBC states it has reviewed its shared services approach used for cross charging services between FEI and FBC and proposes to allocate costs based on cost drivers (Cost Driver Approach), as opposed to the current approach of charging time between the Utilities based on timesheets (Timesheet Approach).⁵⁵⁹ FortisBC explains that FEI and FBC began sharing services in 2010 and have been increasing their level of integration since that time, such that today all departments have integrated management. FEI and FBC currently allocate Executive time respectively using the Massachusetts Formula and propose to continue this approach. The cost of shared services in all other departments is allocated using time sheets.⁵⁶⁰

⁵⁵⁷ BCOAPO Final Argument, p. 37.

⁵⁵⁸ FortisBC Reply Argument, p. 118.

⁵⁵⁹ Exhibit B-1, p. A-19.

⁵⁶⁰ Exhibit B-1, p. D-37.

FortisBC is also requesting approval of the methodologies of allocating common corporate service costs from FI and FHI to FEI and FBC.⁵⁶¹

The shared and corporate services study results are reviewed below.

Shared Services Study

Regarding the proposal to allocate O&M shared services between FEI and FBC based on a Cost Driver Approach to replace the current Timesheet Approach, FortisBC submits the Cost Driver Approach is simpler to understand, easier to administer and more efficient and stable over time. FortisBC states the approach only requires an annual update with a broader review of the shared services model to be undertaken on a periodic basis.⁵⁶²

FortisBC outlines that the change in approach would have a minimal impact on FEI's and FBC's O&M costs. However, as part of the transition to a Cost Driver Approach in this Proposed MRP, an adjustment is required to the Base O&M of FEI and FBC to recognize the difference in the overall allocation from the current Timesheet Approach to the Cost Driver Approach. Based on the 2018 actual O&M expenditures, the adjustment required would be an increase to FBC's Base O&M of \$0.338 million with an equivalent offsetting reduction to FEI's Base O&M of \$0.338 million.⁵⁶³

Corporate Services Study

The corporate services function consists of certain specialized functions that reside in FI and FHI. FI provides corporate service functions for FHI and then FHI passes along most of these activities to FEI, FBC and the Aitken Creek Gas Storage ULC (ACGS), along with FHI corporate services. FortisBC engaged KPMG to review the nature and allocation of FI and FHI corporate services to FEI, FBC and ACGS to be implemented beginning 2020.⁵⁶⁴

The changes included in the 2018 Corporate Services Study as compared to the 2013 Corporate Services Study are as follows:

- The amalgamation of the three gas utilities (FEI, FEVI. and FEW), effective December 31, 2014, means that corporate services from FI and FHI are no longer allocated to three regulated gas utilities.
- ACGS and FBC have been added to the sharing methodology of FI and FHI corporate service costs.
- FI corporate service costs previously charged directly to FBC have been pooled with the FI corporate service costs charged to FHI.
- FHI corporate service costs previously charged directly to FBC have been pooled with the FHI corporate service costs charged to FEI and ACGS.

While there have been changes to the entities receiving shared services, FortisBC states the general process, nature of eligible corporate service costs and allocation methodology of corporate services from FI and FHI are

⁵⁶¹ Exhibit B-1, p. A-19.

⁵⁶² FortisBC Final Argument, p. 285; Exhibit B-1, p. D-38.

⁵⁶³ Exhibit B-1, p. D-40.

⁵⁶⁴ Ibid., p. D-41.

consistent with the 2013 Corporate Services Study. The Utilities will continue to rely on these corporate services during the term of the Proposed MRPs.⁵⁶⁵

FortisBC submits the allocation methodologies include a formula that is based on total assets, excluding goodwill, and controllable operating expenses for FI corporate services, and the use of a Massachusetts Formula for FHI corporate service allocations. Further, it submits both methodologies and the nature of the FI and FHI corporate service costs, including the addition of FBC to the sharing methodology, have been reviewed and endorsed by KPMG in the 2018 Corporate Services Study. FortisBC seeks approval of the allocation methodology, rather than approval of the forecast of corporate service costs.

The rate impact of implementing the new methodologies will be minimal: a 0.02 percent decrease in FEI's delivery rates and a 0.10 percent increase in FBC's rates.⁵⁶⁶

Positions of Interveners

ICG

ICG submits that shared services allocations to FBC should continue to be based on time sheets, which would reflect the relative size of FEI and FBC. ICG argues although the differences between the two approaches have been relatively small, the size of the difference should not determine the allocation. In ICG's view, the Time Sheet Approach will more closely match cost causation than the proposed Cost Driver Approach and "should be the preferred method for allocating costs to FBC."⁵⁶⁷

BCOAPO

Regarding the shared services allocation, BCOAPO submits that while the Cost Driver Approach is simpler to administer, it is less accurate than the Timesheet Approach. BCOAPO asks the BCUC to carefully consider whether the improvement in efficiency offsets the loss accuracy, given the resulting impacts.⁵⁶⁸ BCOAPO also notes the Corporate Services allocation methodology has been subject to an external review by KPMG and several information requests during the current proceeding. BCOAPO states it has not identified any issues with the proposal.⁵⁶⁹

FortisBC Reply Argument

In reply, FBC submits that the ICG has not identified a valid reason for maintaining a Timesheet Approach and submits a Cost Driver Approach is the most reasonable approach at this time, as follows:

- The Cost Driver Approach reflects the relative size of FEI and FBC due to the cost drivers used;
- The Cost Driver Approach reflects cost causation and is consistent with the shared services approach approved previously by the BCUC;

⁵⁶⁵ Ibid., pp. D-42-D-43.

⁵⁶⁶ Fortis BC Final Argument, pp. 287-289.

⁵⁶⁷ ICG Final Argument, p. 8.

⁵⁶⁸ BCOAPO Final Argument, p. 38.

⁵⁶⁹ Ibid.

- A comparison to the Timesheet Approach shows that the difference between the two approaches has narrowed over the past four years to immaterial amounts, as the shared services have stabilized which demonstrates both approaches accurately match cost causation; and
- Consistent with accepted Bonbright rate design principles, factors other than cost causation including practical considerations favour the Cost Driver Approach. It is simpler to understand, easier to administer, and more efficient and stable.⁵⁷⁰

Panel Determination

The Panel approves FortisBC’s proposed allocation methodologies for: shared services between FEI and FBC; corporate services between FHI and FEI; and corporate services between FEI and FBC.

Regarding FortisBC’s proposal to change to a Cost Driver Approach for shared services between FEI and FBC, the Panel is persuaded that any potential reduction in accuracy resulting from a move away from a Timesheet Approach is more than offset by the savings associated with the increased efficiency of the Cost Driver Approach. Further, FortisBC has clearly demonstrated the impact of the change on ratepayers is minimal.

In our view, the changes reflected in the Corporate Services Study since the 2013 study appropriately reflect changes to the Fortis entities that receive shared services. Further, the allocation methodology has been reviewed and endorsed by KPMG. The Panel notes none of the interveners raised any objections about the methodology used or the study.

4.6.4 Capitalized Overhead Studies

The proposal for FEI is to apply a capitalized overhead rate of 16 percent, resulting in a 4.0 percent increase over the previously approved capitalization rate. FortisBC proposes a 15 percent capitalization rate for FBC which is unchanged from the previously approved rate. FortisBC states that it proposes to use these rates for the term of the Proposed MRPs.⁵⁷¹

FortisBC submits the capitalized overhead rates reflect a reasonable basis for capitalization of costs related to overhead costs that have not been directly charged to capital projects.⁵⁷² It explains that O&M expenditures include costs for activities that are primarily for operating the business independent of the levels of capital but there is a portion of O&M that is required to initiate and enable capital expenditures. Fortis BC elaborates that the capitalized overhead allocation captures:

- For certain directly attributable activities that support the construction of multiple capital projects since the use of a capitalized overhead allocation is a more efficient process to allocate these direct costs; and
- Other activities that are not directly attributable to a specific project such as certain activities performed by human resources, finance, legal and regulatory since these activities are integral in constructing and supporting a utility’s capital program.⁵⁷³

⁵⁷⁰ FortisBC Reply Argument, p. 119.

⁵⁷¹ Exhibit B-1, p. A-20.

⁵⁷² Ibid., p. A-20.

⁵⁷³ Ibid., p. D-53.

Capitalized overhead is calculated by applying the overhead capitalization rate to gross O&M less amounts charged directly to capital and other non-O&M accounts. The total amount of capitalized overhead is recorded as capital additions to the appropriate asset accounts for each individual capital project on a detailed pro-rata basis.⁵⁷⁴

Capitalized overhead is assigned to Regular capital, which excludes CPCNs and certain other Major Projects. FortisBC explains that while there is a portion of net O&M that is indirectly supporting CPCNs and Major Projects, it does not capitalize overhead to these capital projects. The rationale for this treatment is that incremental costs and activities for these types of projects, including external contractor costs, are charged directly to CPCNs and Major Projects and therefore a mechanism such as a capitalized overhead rate to allocate costs from O&M to the capital projects is not required.

FortisBC also states, consistent with historical and current practice, the actual amount of overheads capitalized is recorded at the forecast amount so that there will be no variances in either the capital additions or O&M related to the amount of capitalized overhead in any given year.⁵⁷⁵

The proposed O&M capitalization percentages do not have any impact on the determination of the Base O&M for FEI or FBC. FortisBC explains that:

- The proposed calculation of Base O&M is a gross amount of O&M;
- Overheads capitalized are subtracted from Gross O&M to come to the Net O&M which is included in rates; and
- The portion of Gross O&M capitalized is added to plant in service in the test year.

This is illustrated in Table 47 below showing the calculation of Net O&M:

Table 47: Illustrative Calculation of Net O&M⁵⁷⁶

Line	Particulars	Base	Year 1	Reference
1	Inflation (I factor)		2%	
2				
3	Unit Cost O&M{UCOM} (\$/Customer)	\$ 250	\$ 255	Prior Year x (1 + Line 1)
4	Average Number of Customers		<u>1,000,000</u>	
5	Total Gross Index-based O&M (\$000)		\$ 255,000	Line 3 x Line 4
6	O&M excluded from index-based O&M (\$000)		<u>30,000</u>	
7	Total Gross O&M (\$000)		\$ 285,000	Line 5 + Line 6
8				
9	Capitalized Overhead Percent		12% 16%	
10	Less: Capitalized Overhead (\$000)		(34,200) (45,600)	-Line 7 x Line 9
11				
12	Net O&M (\$000)		<u>250,800</u> <u>239,400</u>	Line 7 + Line 10
13				
14	O&M Embedded in Rates in Test Year (\$000)	250,800	239,400	= Line 12
15	O&M Capitalized into Plant in Test Year (\$000)		34,200 45,600	= -Line 10

⁵⁷⁴ Ibid, p. D-54.

⁵⁷⁵ Ibid, p. D-55.

⁵⁷⁶ Exhibit B-2, p. 4.

FortisBC states the allocation of capitalized overhead costs is consistent with the methodology used in previous studies and is corroborated with established rate-regulated utility practice, the BC's Uniform System of Accounts (USofA) and US GAAP.⁵⁷⁷

The proposed capitalized overhead rates of 15 percent for FBC and 16 percent for FEI were developed by KPMG and reviewed and corroborated by FortisBC management.⁵⁷⁸ As in 2013, KPMG performed a review of the capitalized overhead methodology for the Proposed MRP terms. In the 2018 Capitalized Overhead Studies, KPMG finds that the:

...survey-based capital cost allocation methodology, as detailed in Section 6 of this report, to be a reasonable basis for capitalization of costs related to capital activities that have not been directly charged to capital projects (i.e. overhead capitalization). This methodology is consistent with internally generated evaluation criteria and practice established by the external guidance (referred to in this report), in particular the requirements of U.S. GAAP under ASC 980 22 Regulated Operations.⁵⁷⁹

The 2018 Capitalized Overhead Studies use a similar survey-based approach as was undertaken in the capitalized overhead studies prepared in 2013.⁵⁸⁰

Since FortisBC is not recommending a change in the capitalized overhead rate of 15 percent, FBC's proposal has no impact on customer rates.⁵⁸¹

The estimated impact on FEI delivery rates of the proposed change in the overhead capitalization rate is approximately 0.1 percent for every 1.0 percent change in the capitalized overhead rate.⁵⁸² FortisBC elaborates that, all else being equal, increasing the capitalized overhead rate from 12 percent to 16 percent decreases customer delivery rates by approximately 0.4 percent in the year of implementation. FortisBC estimates that increasing FEI's capitalized overhead rate from 12 percent to 16 percent decreases customer delivery rates by approximately 0.4 percent or approximately \$13 million in the year of implementation, after considering the impacts of reducing Net O&M (which then reduces income taxes and earned return).⁵⁸³

FortisBC states the figure below illustrates that FEI's 2019 Base (2019B) O&M is lower than the O&M for FEI at the start of the Current PBR Plans, net of capitalized overheads.

⁵⁷⁷ Exhibit B-1, p. A-20.

⁵⁷⁸ Ibid.

⁵⁷⁹ Ibid, p. D-55.

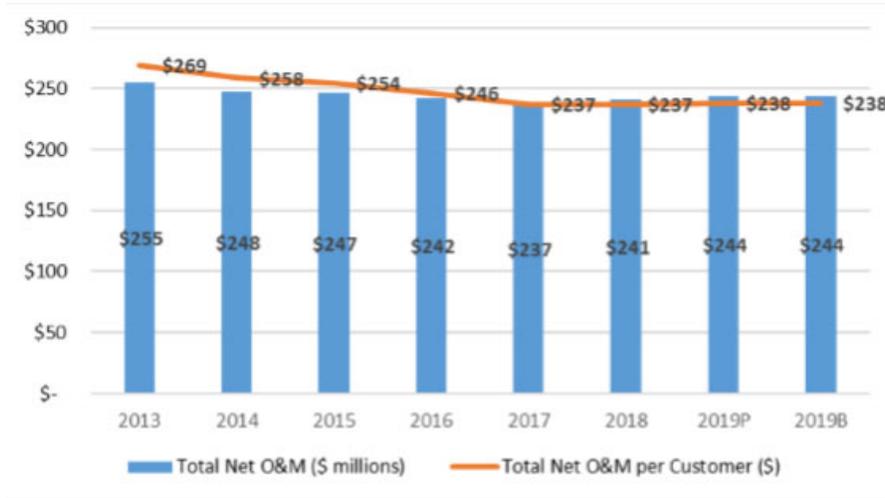
⁵⁸⁰ Ibid, p. D-55.

⁵⁸¹ Exhibit B-1, p. A-20.

⁵⁸² Ibid.

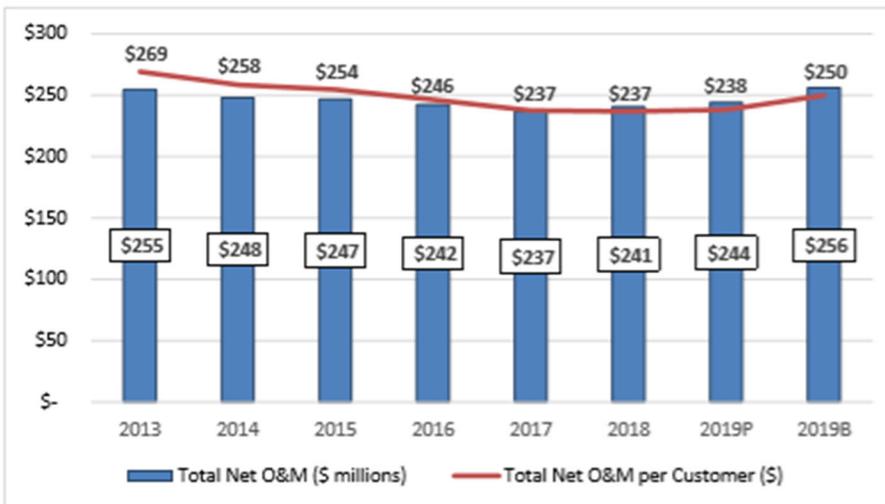
⁵⁸³ Exhibit B-1, p. D-58; Exhibit B-10, BCUC IR 150.8.

Figure 6: FEI Actual Net O&M in Real Dollars from 2013 to 2019 Base (Using 16 percent Capitalized Overhead Rate for 2019 Base)⁵⁸⁴



FEI proposes to change the capitalization rate from 12 percent to 16 percent in 2020 and this is reflected in the 2019 Base. In Figure 7 below, the graph in Figure 6 above is revised to show FEI net O&M in real dollars based on using a capitalized overhead rate of 12 percent for the 2019 Base (2019 B).

Figure 7: FEI Actual Net O&M in Real Dollars from 2013 to 2019 Base (Using 12 percent Capitalized Overhead Rate for 2019 Base)⁵⁸⁵



In responses to information requests, FortisBC explained:

- Capitalized overhead rates from several other utilities range from lower than 2 percent to 18.5 percent. However, capitalized overhead rates from other utilities cannot be used as indicators of the correct overhead capitalized rate for FEI or FBC due to varying capitalized overhead methodologies,⁵⁸⁶

⁵⁸⁴ Ibid., Figure A1-1, p. A-6.

⁵⁸⁵ Exhibit B-10, BCUC IR 5.1.

⁵⁸⁶ Exhibit B-12, BCUC IR 257.1, 257.1.1.

Some of the key drivers of increased capital-related costs were:

- increased engineering costs for upfront planning activities prior to construction of capital projects which are directly charged to capital;
- increased requirements for upfront communication and public hearings to comply with requirements of municipalities and other levels of government; and
- increased costs for employee services activities associated with a higher level of capital expenditures, including increased focus on employee and customer health and safety;⁵⁸⁷ and
- Since FEI and FBC record actual capitalized overhead based on the forecast or approved amounts there is no variance and no impact to achieved ROE or the ESM from capitalized overheads.⁵⁸⁸

FortisBC submits FEI's capitalized overhead rate of 16 percent is reasonable based on the 2018 Capitalized Overhead Study conducted by KPMG. FortisBC submits:

- The increase is primarily due to the increase in growth and sustainment capital activities that FEI has experienced since 2014 and that is expected to continue over the Proposed MRP term;
- This increase in capital activity involves work done not only by employees that direct charge to capital projects, but also through the support and activities of various departments whose costs reside in O&M including engineering, external relations, procurement, information systems, regulatory, legal, human resources and finance, to enable the capital expenditures;
- This rate results in a level of net O&M (gross O&M less capitalized overhead) that is comparable to prior years, taking into account inflationary pressures and it results in a relatively consistent capitalization rate in 2020 as compared to the rate over the term of the Current PBR Plan; and
- The recommended 16 percent capitalized overhead rate is also comparable to the 14 percent capitalized overhead rate approved in both the 2010-2011 FEI (then Terasen Gas Inc.) Negotiated Settlement Agreement (Order G-141-09) and the 2012-2013 FEI Revenue Requirements Application (G-44-12).⁵⁸⁹

Intervenors either did not comment or were supportive of FortisBC's proposals regarding capitalized overhead studies.

Panel Determination

The Panel approves FEI's proposed capitalized overhead rate of 16 percent to be used in the determination of rates for FEI effective January 1, 2020.

The Panel approves FBC's proposed capitalized overhead rate of 15 percent to be used in the determination of rates for FBC effective January 1, 2020.

The BCUC has historically accepted FBC and FEI's overhead capitalization policy and has approved capitalization rates to be used in the determination of delivery rates. FortisBC's proposed rates for the Proposed MRPs were

⁵⁸⁷ Exhibit B-10, BCUC IR 150.3.1.

⁵⁸⁸ Exhibit B-10, BCUC IR 148.1.

⁵⁸⁹ FortisBC Final Argument, pp. 291–292.

developed by KPMG, a third party. KPMG uses a consistent methodology with previous studies - a survey-based approach. While the Panel notes this methodology depends somewhat on the survey participants' individual judgments and perceptions, KPMG does state that its use is consistent with both internally generated evaluation criteria and practice established by external guidance. Further, any disadvantages to a survey-based approach are mitigated through regular updates to the capitalization studies.

The only proposed change to capitalization rates for the Proposed MRPs is a 4.0 percent increase in the overhead capitalization rate for FEI. This change results in a one-time favourable impact to rates of approximately \$13 million or 0.4 percent. The Panel finds that FEI has adequately supported the need for this increase given FEI's increase in Growth and Sustainment capital activities. The Panel also notes that because FortisBC records actual capitalized overheads based on the forecast amount there will be no variances during the Proposed MRPs and therefore no impact on achieved ROE or the ESM that result from capitalized overheads.⁵⁹⁰

5.0 Clean Growth Innovation Fund

FortisBC proposes to establish a Clean Growth Innovation Fund (Innovation Fund) for each of FEI and FBC. FortisBC explains the Innovation Fund's purpose in these terms:

The Innovation Fund is required to accelerate the pace of clean energy innovation, to achieve performance breakthroughs and cost reductions, and to provide cost effective, safe and reliable solutions for customers. The Innovation Fund will assist FortisBC in addressing the expectation to reduce emissions, and forms part of FortisBC's proactive strategy to support the transition to a lower carbon economy, while maximizing the use of its energy delivery systems for its customers...The Innovation Fund is complementary and incremental to FortisBC's current innovative activities and is ultimately required to meet British Columbia's energy objectives.⁵⁹¹

More specifically, the fund is designed to address perceived gaps in FortisBC's current innovation activities. This fund will finance GHG reduction activities that:⁵⁹²

- Cover the entire utility value chain;
- Are outside of DSM;
- Relate to pre-commercial and commercial activities (with the former likely to comprise the majority),⁵⁹³ and
- Are supported by predictable funding levels.

FortisBC anticipates that given the ambitious renewable gas target in the CleanBC Plan,⁵⁹⁴ blending hydrogen and renewable gas will be high priorities for funding.⁵⁹⁵

⁵⁹⁰ Exhibit B-10, BCUC IR 148.1.

⁵⁹¹ FortisBC Final Argument, p. 223.

⁵⁹² Exhibit B-1, p. C-139; Exhibit B-10, BCUC IR 70.1.

⁵⁹³ Exhibit B-6, BCSEA IR 23.2; BCSEA Final Argument, p. 42.

⁵⁹⁴ Refer to Subsection 5.4.

⁵⁹⁵ Exhibit B-6, BCSEA IR 23.3; BCSEA Final Argument, p. 42.

5.1 Size of the Fund

In order to finance the Innovation Fund, FortisBC, pursuant to sections 59 and 60 of the UCA, seeks approval to add a fixed rate rider to the basic charge that would apply to FEI (\$0.40/month) and FBC (\$0.30/month) customers. Annually, this amounts to \$4.9M for FEI and \$0.5M for FBC.⁵⁹⁶ Over the MRP term, this totals \$24.5M and \$2.5M for FEI and FBC, respectively. The fund would be incremental to the Utilities' Base O&M and would be "new money", except for FEI's existing contribution to the Natural Gas Innovation Fund (NGIF). In anticipation of BCUC approval of this new Innovation Fund, FEI has reduced its overall Base O&M request by \$409,000⁵⁹⁷ to reflect that the existing NGIF funding would now be funded through FEI's Innovation Fund.⁵⁹⁸ If the proposed Innovation Fund is not approved, FEI states that it plans to continue funding the NGIF at current levels under the index-based O&M formula (i.e. the \$409,000 will re-instated).⁵⁹⁹

FortisBC states it will not earn a return on the Innovation Fund, will not use the fund to finance capital projects that form part of its rate base and will return to ratepayers any unspent monies at the end of the MRP term.⁶⁰⁰

5.2 Governance of and Accountability for the Fund

FortisBC proposes a "robust governance structure for the Innovation Fund to ensure that funds are prudently distributed to pursue innovations with strong customer benefit."⁶⁰¹ That structure consists of the following:

- The Innovation Working Group (comprising FortisBC employees) will identify, evaluate, select and execute the projects, track funds received and spent, report on progress and evaluate target achievement;
- The External Advisory Council (comprising external stakeholders drawn from interveners) will provide insight and feedback on projects, review funding selections and provide recommendations to the Working Group for its investment decisions; and
- The Executive Steering Committee (comprising senior FortisBC employees) will provide strategic direction.⁶⁰²

The governance model aligns with approaches used by Ofgem (the regulator of energy networks in the United Kingdom) and the Gas Research Institute as do recommended elements such as an open call for proposals, evaluation of proposals based on an open set of criteria, and an ongoing evaluation framework and regular reporting on project developments through an annual report.⁶⁰³

As for accountability, FortisBC proposes to include in Annual Reviews updates on the following for all approved and active projects:⁶⁰⁴

⁵⁹⁶ Ibid., p. C-129.

⁵⁹⁷ Representing the 2018 actual expenditures adjusted for the 2019 formula inflator.

⁵⁹⁸ Exhibit B-6, BCSEA IR 24.5; BCSEA Final Argument, p. 44.

⁵⁹⁹ Exhibit B-10, BCUC IR 26.10.

⁶⁰⁰ FortisBC Reply Argument, p. 97.

⁶⁰¹ FortisBC Final Argument, p. 233.

⁶⁰² Exhibit B-1, pp. C-144–C-145; Exhibit B-10, BCUC IR 218.3; FortisBC Final Argument, p. 233–234.

⁶⁰³ Exhibit B-12, BCUC IR 207.11; FortisBC Final Argument, p. 235.

⁶⁰⁴ FortisBC Final Argument, p. 236.

- Project description and key innovation(s);
- Main innovation activity category (as described in Appendix C6-4 of the Application);
- Funding portfolio in which the project was approved;
- Co-funding obtained and expected;
- Estimated benefits; and
- Quality, schedule and cost progress toward pre-funding conditions, milestones and completion.

Beyond such reporting, FortisBC does not propose seeking annual BCUC approval of projects. This is because such a requirement will delay funding decisions by up to a year, limit the opportunities that can be pursued, and eliminate the ability to increase funding to successful initiatives or add a new initiative mid-year.⁶⁰⁵

5.3 Innovation Funding Deferral Account

In order to implement the proposed Clean Growth Innovation Fund, FortisBC seeks approval of a deferral account. The amounts collected from customers will be recorded as credits in the deferral account and the expenditures by the Utilities will be debits. FortisBC states the deferral account balance will not be trued up each year but rather, will continue through the term of the Proposed MRP with a commitment by the Utilities not to spend more than collected. The deferral account is proposed to be a non-rate base account attracting a Weighted Average Cost of Capital (WACC) rate of return. At the end of the Proposed MRPs, the unused balance in the deferral account is proposed to be returned to customers.⁶⁰⁶

FortisBC suggests that in the absence of this deferral account, innovation funding costs could have been forecast within O&M for each year of the term of the Proposed MRPs. The costs would form part of the cost of service and be recovered through delivery rates. However, even if costs were forecast each year, a deferral account would still be required to capture variances between actual and forecast costs, to ensure customers are kept whole.⁶⁰⁷

5.4 Issues Arising

FortisBC's proposal to establish an Innovation Fund for each of FEI and FBC raises three issues:

- Have the two Utilities, collectively or individually, demonstrated that they need additional funding for new innovation initiatives?
- To whom (ratepayers or shareholders) will the benefits accrue such that they should bear the cost of this additional funding?
- Does the proposal result in a rate that is just, reasonable and not unduly discriminatory within the meaning of sections 59 and 60 of the UCA so as to warrant BCUC approval?

The Panel addresses each of these issues and the parties' submissions below.

⁶⁰⁵ FortisBC Final Argument, p. 238.

⁶⁰⁶ Exhibit B-1, p. C-120.

⁶⁰⁷ *Ibid.*, p. C-123.

Need for the Fund

With respect to the need for additional innovation funding, FortisBC points to recent governmental initiatives accelerating climate objectives as requiring innovation to achieve those objectives:

- Canada’s commitment to reduce GHG emissions by 30% from 2005 levels by 2030, and 80% by 2050;⁶⁰⁸
- BC legislating a 40% reduction in GHG emission targets from 2019 levels by 2030, 60% by 2040 and 80% by 2050 (CleanBC Plan);⁶⁰⁹ and
- Municipalities and regions throughout Canada and British Columbia recently declaring climate emergencies.⁶¹⁰

FortisBC notes that, provincially, the CleanBC Plan targets 25 million tonnes of GHG reductions by 2030, with 15 percent of that to come from renewable gas.⁶¹¹ However, at recent average gas throughput on FEI’s system, 15 percent renewable gas would require approximately 30 petajoules (PJ) of renewable supply.⁶¹² FortisBC states that the current renewable supply in the FEI system only totals 0.03 PJ, which will necessitate a 100 times scaling of renewable gas supply to reach the 2030 CleanBC Plan target. To achieve the Province’s target FEI will be required to quickly advance innovation and develop new renewable gas sources.⁶¹³

FortisBC cites other jurisdictions that have implemented ratemaking mechanisms that allow for ratepayer funded innovation programs as recognizing the need for, and benefits of, innovation.⁶¹⁴ It points to an independent evaluation commissioned by Ofgem, which found that the Low Carbon Networks Fund (a ratepayer funded innovation program) “encouraged [utilities] to include innovation as core business” with “current benefits estimated to be approximately one third of the total funding cost” and “the future net benefit...is significant and is estimated to range from 4.5 to 6.5 times the cost of funding the scheme.”⁶¹⁵ FortisBC expects the Innovation Fund to yield similar benefits due to “the similarity of the funding and governance models and the universal need for innovation.”⁶¹⁶

FortisBC acknowledges that it has been introducing innovative products and services like DSM, renewable natural gas, compressed and liquid natural gas for on-road and marine markets, and optimizing the use of its Tilbury LNG plant, to enable the transition to a low-carbon economy since 2007. However, it expects the Innovation Fund to “significantly accelerate their rate of adoption wherever possible.”⁶¹⁷

Benefits of the Innovation Fund

As for benefits arising from the Innovation Fund, FortisBC anticipates that the fund will “accelerate the pace of clean energy innovation, to achieve performance breakthroughs and cost reductions, and to provide cost

⁶⁰⁸ Ibid., p. C-129–C-130.

⁶⁰⁹ Ibid., C-130.

⁶¹⁰ Exhibit B-9, MoveUP IR 1.3, 3.5–3.7.

⁶¹¹ Exhibit B-1, p. C-131.

⁶¹² Ibid, p. C-132.

⁶¹³ FortisBC Final Argument, p. 225.

⁶¹⁴ Exhibit B-1, pp. C-132–C-137; Appendix C6-1.

⁶¹⁵ Ibid., p. C-135.

⁶¹⁶ FortisBC Final Argument, pp. 227.

⁶¹⁷ Ibid., p. 228.

effective, safe and reliable solutions for our customers.”⁶¹⁸ Other benefits include positive impacts on cost, safety and reliability through pursuit of initiatives that will:⁶¹⁹

- Improve and reduce pipeline inspection costs;
- Address gas supply disruptions using demand response and supply side measures; and
- Improve electric system reliability using storage and distribution generation technologies.

FortisBC submits that these initiatives directly benefit customers (as daily consumers of energy products and services) and British Columbians alike, rather than the shareholder. FortisBC argues that although the shareholder’s interests are aligned with those of its customers, the shareholder will only “benefit indirectly, over the long term, as the Utilities remain viable and continue to thrive, allowing shareholders the opportunity to earn a fair return on their investment.”⁶²⁰

FortisBC contends that ratepayer funded innovation is reasonable and appropriate, and aligns with Concentric Advisors’ recommendation that “[u]tility customer funding is most appropriate where the benefits largely accrue to the utility customers and where they are in a unique position to test new technologies and business models.”⁶²¹ Consistent with the Innovation Fund’s commercialization focus, it will support initiatives that range from “Research to Prove Feasibility” to “System Test, Launch and Operations” Technology Readiness Levels (TRLs) but will exclude basic technology research, with the expectation that this range will realize benefits sooner than those with lower TRLs.

Just, Reasonable and Not Unduly Discriminatory Rate

As for whether a fixed charge rate rider results in a just, reasonable and not unduly discriminatory rate, FortisBC submits that a basic charge fixed rate rider is preferable over a volumetric rate and is the “most reasonable mechanism” for several reasons.⁶²²

- Innovation Fund activities are largely fixed and do not vary by volume;
- The reduction of GHG emissions resulting from successful research and development will benefit all customer types, not just higher volume customers;
- The fixed rate rider represents a small one-time incremental impact to all customers (0.5% for FEI and 0.25% for FBC); and
- A volumetric rate rider would see FEI’s highest volume customer face an annual increase of \$58,540 compared to a \$4.80 annual increase under a fixed rate rider.

Based on this, FortisBC submits that a basic charge fixed rate rider applied equally to all customers follows cost causation principles and is fair and reasonable “as Innovation Fund spending will span the entire utility value

⁶¹⁸ Exhibit B-1, p. C-128.

⁶¹⁹ Exhibit B-10, BCUC IR 81.1.

⁶²⁰ Exhibit B-12, BCUC IR 207.1; FortisBC Final Argument, p. 230.

⁶²¹ Exhibit B-1-1, Appendix C6-1, Concentric: Regulator Rationale for Ratepayer-funded Electricity and Natural Gas Innovation, p. 8.

⁶²² Exhibit B-12, BCUC IR 70.3, 214.6–214.12; FortisBC Final Argument, p. 238.

chain and will provide cost-effective energy solutions to all customers” and “all customers will benefit from the work funded by the Innovation Fund.”⁶²³ FortisBC notes that embedding the rate rider within the basic charge:⁶²⁴

- Is consistent with how other rate riders are presented on customers’ bills;
- Avoids the added costs associated with providing a separate line item on the bill;
- Avoids causing unnecessary confusion for customers; and
- Allows for the use of bill messages or other forms of communication to call attention to the rider if necessary.

FortisBC further notes that any unspent funds collected from ratepayers will be refunded to them at the end of the Proposed MRPs term. For all these reasons, FortisBC submits that the Innovation Fund and the basic charge fixed rate rider satisfy the requirements of just, reasonable and not unduly discriminatory or unduly preferential rates under sections 59 and 60 of the UCA.

Positions of Interveners

Interveners are divided on this proposal.

MoveUP and BCSEA

MoveUP and BCSEA support approval of the Innovation Fund. MoveUP views the fund as one of the “modest, reasonable and necessary steps towards adapting the Utilities’ business models” in the face of an uncertain future. It points out that if successful, the fund can be continued or expanded and if unsuccessful, it can be modified, expanded or contracted as need be.⁶²⁵ Similarly, BCSEA “strongly supports” the fund and related accounts and endorses all of FortisBC’s arguments for approval.⁶²⁶

CEC

The CEC supports the Innovation Fund and the associated deferral account, provided it meets specific conditions of the nature the CEC has laid out such as ensuring direct benefits for ratepayers.⁶²⁷ The CEC submits it:

- supports the purpose of the Innovation Fund;⁶²⁸
- considers the funding levels reasonable;⁶²⁹
- accepts that a basic charge rate rider is the appropriate means to fund innovation, but the amount should be shown separately on the customer’s bill.⁶³⁰
- stresses the importance of benefits to customers and recommends that each proposed project should undergo a cost/benefit analysis and a post-project cost/benefit evaluation,⁶³¹ and

⁶²³ Exhibit B-10, BCUC IR 79.3; FortisBC Final Argument, p. 237.

⁶²⁴ Exhibit B-12, BCUC IR 214.3, 214.5; FortisBC Final Argument, p. 237.

⁶²⁵ MoveUP Final Argument, pp. 22–23.

⁶²⁶ BCSEA Final Argument, p. 35.

⁶²⁷ CEC Final Argument, p. 85.

⁶²⁸ *Ibid.*, p. 67.

⁶²⁹ *Ibid.*, p. 69.

⁶³⁰ *Ibid.*, p. 69.

⁶³¹ *Ibid.*, pp. 71-73.

- makes various comments on potential projects.⁶³²

The CEC also submits should the BCUC approve the Fund, any residual balance should be returned to ratepayers at the end of the MRP term, if approved.⁶³³ The CEC recommends that details of how funded projects are directly benefitting ratepayers and a cost benefit analysis for all projects should be included in the Annual Reviews.⁶³⁴

The CEC concludes stating that while it is in favour of the Innovation Fund as “promoting the health of the Companies,” it does not consider the fund offers enough by way of ratepayer accountability and benefits.⁶³⁵

ICG and BCOAPO

ICG and BCOAPO oppose the fund. ICG points out that given the stated objective of the fund is to address ambitious GHG reduction targets, the case for the fund may be compelling for FEI but not for FBC.⁶³⁶ ICG submits that the BCUC should not approve the fund because it does not follow cost of service principles (citing the Creative Energy CPCN Decision⁶³⁷ relating to its Carbon Reduction Fund),⁶³⁸ as it amounts to a pre-collection of monies for costs before they are incurred on activities yet to be identified, a practice which it asserts the BCUC has consistently disallowed.⁶³⁹ However, if the BCUC were to approve the fund, ICG would support the fixed rate rider over the volumetric charge as the latter would result in its stakeholders (FBC’s wholesale customers) incurring an incremental annual charge of \$50,000, “with limited potential for benefits.”⁶⁴⁰

Like ICG, BCOAPO opposes the Innovation Fund, albeit for different reasons:

- FortisBC already has sufficient avenues to pursue innovation through the NGIF, the DSM Innovative Technologies Program, GGRG-enabled funding for commercial NGT and RNG initiatives and its LTRP; and
- A province wide regulatory framework and implementation plan, including special protection for low and fixed income customers to ensure that benefits accrue to them, need to be in place before approval of any customer-funded innovation.⁶⁴¹

If the BCUC were to approve the fund, BCOAPO recommends the following changes:

- The BCUC should pre-approve projects annually and request interim reports including quarterly monitoring reports in the first year, followed by a mandatory final report;
- Funding should be on a volumetric basis. “Collecting the same amount from all customers would be unfair and unduly discriminatory to low- and fixed-income customers,” disproportionately impacting

⁶³² Ibid., pp. 73-75.

⁶³³ Ibid., p. 87.

⁶³⁴ Ibid., p. 76.

⁶³⁵ Ibid., p. 88.

⁶³⁶ ICG Final Argument, p. 24.

⁶³⁷ Creative Energy Vancouver Platforms Inc. (Creative Energy) Certificate of Public Convenience and Necessity (CPCN) Application for a Low Carbon Neighbourhood Energy System for Northeast False Creek and Chinatown Neighbourhoods of Vancouver, Decision and Order C-12-15 dated December 8, 2015 (Creative Energy CPCN Decision).

⁶³⁸ Ibid., p. 3.

⁶³⁹ Ibid., pp. 24–25.

⁶⁴⁰ Ibid., p. 25.

⁶⁴¹ BCOAPO Final Argument, p. 44.

that group.⁶⁴² In contrast, high volume customers are more likely to experience greater benefits in terms of reduced utility bills through technology advancements;

- The fund should include low-income specific requirements by allocating a fair minimum spending allowance towards low-income customers and the External Advisory Council should include low-income customer representatives,⁶⁴³ and
- To provide more transparency and accountability, a volumetric rate rider should appear as a separate line item on customer bills.⁶⁴⁴

BCMEU

BCMEU takes no position with respect to the Innovation Fund.

FortisBC Reply Argument

In reply, FortisBC submits that no alternatives to the Innovation Fund currently exist, given the following material gaps in existing innovation initiatives.⁶⁴⁵

- NGIF: This national fund is limited to innovation in the natural gas value chain and does not support commercial innovations;
- DSM Innovative Technologies Program: This program does not support activities that reduce GHG emissions but do not necessarily result in significant reductions in energy use, and is limited to the building and industry sectors;⁶⁴⁶ and
- GGRR-enabled Innovation (NGT and RNG programs): These programs do not include pre-commercial expenditures and are limited by the scope of prescribed undertakings as defined in the GGRR.

FortisBC disagrees with BCOAPO's proposition that the fund cannot be approved in the absence of a provincial regulatory framework and implementation plan. While "beneficial, it is not necessary and there is no reason to believe that such a plan will be in place in the foreseeable future."⁶⁴⁷ FortisBC reiterates that the "benefits of the Innovation Fund are needed now and should not be delayed indefinitely to the detriment of all British Columbians."⁶⁴⁸ FortisBC also disagrees with BCOAPO's suggestion there be an annual approval process on the basis that the timing challenges associated with that process make it infeasible.⁶⁴⁹ As for BCOAPO's suggestion that the fund be funded volumetrically, FortisBC points out that while it is amenable to such an approach, low-income customers are not necessarily low volume customers.⁶⁵⁰ FortisBC further notes that the BCUC lacks jurisdiction to implement rates on the basis of income, and FortisBC's customer service representatives would

⁶⁴² Ibid., pp. 44–45.

⁶⁴³ Ibid., p. 45.

⁶⁴⁴ Ibid.

⁶⁴⁵ FortisBC Reply Argument, pp. 91–92.

⁶⁴⁶ Exhibit B-10, BCUC IR 73.9.1; FortisBC Final Argument, p. 231.

⁶⁴⁷ Ibid., p. 92.

⁶⁴⁸ Ibid., p. 93.

⁶⁴⁹ Ibid., p. 94.

⁶⁵⁰ FEI 2016 Rate Design Application Decision and Order G-135-18 dated July 20, 2018, p. 9; FortisBC Reply Argument, p. 94.

continue to help those having difficulty with their bills to access government and non-profit organization financial assistance programs.⁶⁵¹

As for BCOAPO's proposal to include representatives of low-income customers as part of the External Advisory Council, FortisBC points out that the council's role is to provide feedback on the proposed projects, not to consider bill impacts or funding levels. Nonetheless, FortisBC expects the council would include one representative with relevant "clean technology" experience drawn from interveners and intervener groups representing customers.⁶⁵²

FortisBC disagrees with BCOAPO's suggestion to show the rate rider separately on customers' bills as it is unnecessary and will appear in the tariff. FortisBC states: "Embedding a rate rider within the delivery or commodity rates allows for a greater understanding of rates overall, reducing the potential for confusion that can result from individual items being displayed."⁶⁵³

Similarly, FortisBC dismisses as "unnecessary" and "untenable" the CEC's suggestion that a cost/benefit analysis be part of the project selection process and a cost/benefit analysis be performed on project completion. FortisBC argues that emissions reductions do not lend themselves to simple cost/benefit analyses and comparing costs of specific initiatives to the economic and non-economic benefits attributable only to those initiatives is impractical, particularly when they have lower TRLs.⁶⁵⁴

As for ICG's objections, FortisBC contends that the justification for the Innovation Fund is equally compelling for FBC as it is for FEI. "Activities funded by FBC's fund are required to support increased reliance on electricity infrastructure as British Columbians transition to a lower carbon economy."⁶⁵⁵ FortisBC gives two examples of initiatives within FBC that would reduce costs while increasing safety and reliability:

- Development of high-speed charging technologies for medium and heavy-duty vehicles which, if successful, would increase electricity demand and lower rates while reducing emissions; and
- Improvements to electricity storage technologies which could benefit customers by making renewable electricity sources more cost effective to integrate and the grid more resilient to outages and power quality fluctuations.⁶⁵⁶

Noting ICG's submissions with respect to the Creative Energy CPCN Decision, FortisBC points to two differences between the Innovation Fund and the Carbon Reduction Fund rate rider that the BCUC rejected in that decision:

- Creative Energy's rate rider was a pre-collection of capital intended to offset the costs of uncertain future capital expenditures whereas the Innovation Fund collects funds to be invested each year as specified by its governance structure and selection criteria for customers' benefit. Any capital investments flowing from those fund initiatives would only be collected from customers once an asset is in service, not pre-collected; and

⁶⁵¹ FortisBC Reply Argument, p. 95.

⁶⁵² Ibid.

⁶⁵³ Exhibit B-12, BCUC IR 214.3; FortisBC Reply Argument, p. 96.

⁶⁵⁴ As depicted in Figure C6-6 on p. C-141 of the Application (Exhibit B-1); FortisBC Reply Argument, pp. 96–97.

⁶⁵⁵ Exhibit B-12, BCUC IR 207.6; FortisBC Reply Argument, p. 98.

⁶⁵⁶ Ibid.

- Creative Energy proposed collecting funds from 2016 to 2020 that would not be used until 2020 and beyond and any unused balance would not be returned to customers, whereas the Innovation Fund will be used during the MRP term, and any remaining balance will be returned to customers at the end of the MRP.

FortisBC continues, stating that the BCUC regularly approves rates on a forecast basis, before costs are actually incurred, and the Innovation Fund revenues will be collected as costs are being incurred.⁶⁵⁷

FortisBC further disagrees with the notion that the BCUC can only approve rates if it has reviewed each individual initiative along with forecast costs as unfounded. Rather, section 60(1)(b.1) of the UCA provides that the BCUC “may use any mechanism, formula or other method of setting the rate that it considers advisable.” FortisBC points to the use of formulas in PBR rate setting as an example of the BCUC setting rates without reviewing forecast costs on a project-by-project basis.⁶⁵⁸

Panel Determination

Having summarized the parties’ submissions, the Panel now addresses the issues relating to the Innovation Fund proposal for each of FEI and FBC separately below. While the fund’s stated purpose is the same for both FEI and FBC, the Panel is not persuaded the current business environment under which the two utilities operate is the same or the need for innovation applies equally to both.

Overall, the Panel finds that FortisBC has demonstrated it needs to accelerate its innovation activities for FEI in light of increasing governmental climate policies aimed at decarbonization and electrification. FortisBC is already engaging in innovation activities such as the NGIF, DSM Innovative Technologies Program, GGRR enabled Natural Gas for Transportation and Renewable Natural Gas programs. These programs are ongoing and will continue within the scope of their existing funding, regardless of whether the Innovation Fund is approved. In addition, FortisBC has now proposed a new, incremental Innovation Fund for each of its two utilities (totaling \$27 million, consisting of \$24.5 million for FEI and \$2.5 million for FBC, respectively) to address perceived gaps in current funding for new initiatives within each utility. The Panel finds the proposal is flawed in the case of FBC, for the reasons stated below.

FBC

FBC has not made a case for additional ratepayer funding for innovation. The Panel agrees with ICG that while the case may be compelling for FEI, the same is not true for FBC. Decarbonization as a climate objective affects primarily, if not exclusively, the business of the gas utility (FEI) as it strives to reduce if not eliminate reliance on GHG emitting fuel sources such as natural gas. Decarbonization is an objective that may drive down consumer demand for natural gas, hence increasing risk for the gas utility and its long-term financial viability. In contrast, electrification potentially benefits the electric utility (FBC) by driving up customer demand for energy fueled by clean hydroelectricity. Thus, electrification and decarbonization policies may serve to actually reduce FBC’s risk profile. In contrast, greater innovation efforts are needed within FEI if natural gas is to remain a viable fuel in the near and long term in light of current climate objectives. This is reflected in the existing innovation programs in the Current PBR Plan that FEI has already put in place to address climate challenges.

⁶⁵⁷ FortisBC Reply Argument, pp. 98-99.

⁶⁵⁸ *Ibid.*, p. 100.

Even if FBC needs to innovate, the amount proposed (\$2.5M over five years) is unlikely to yield any significant results or benefits for FBC ratepayers or any game-changing technological advances. FBC has identified only two innovative initiatives; development of high-speed charging technologies for medium and heavy-duty vehicles and improvements in electricity storage technologies. The Panel notes that these are already underway within the transportation and energy sectors and receive public and private funding. Any additional contributions from FBC in these areas are likely to be negligible in light of the limited size of its proposed Innovation Fund.

Accordingly, the Panel denies FBC's application for approval of an Innovation Fund and rate rider pursuant to sections 59 and 60 of the UCA. The Panel finds that FBC has not demonstrated that there is a need for an Innovation Fund for FBC to pursue innovation projects that would provide FBC's ratepayers with benefits not otherwise available to them. In the absence of such evidence, the proposed Innovation Fund and rate rider for FBC are not just, reasonable and not unduly discriminatory rates that warrant BCUC approval.

The Panel notes that FBC may advance clean transportation initiatives that do not entail the development of new products or services funded by ratepayers, simply through tariff changes that remove barriers to electrification by eliminating demand charges or offering reduced rates for high-speed charging. A recent example of this is the BCUC's approval of BC Hydro's application for two new optional fleet electrification rates in alignment with the province's GHG emission reduction public policy objectives.⁶⁵⁹ The Panel encourages FBC to consider similar initiatives in pursuit of electrification.

FEI

In contrast to FBC, FEI needs to step up its innovation efforts in order to meet the ambitious targets pertaining to renewable gas outlined in the CleanBC Plan. As already noted, the focus on decarbonization and electrification increases FEI's risk profile as a gas utility. Greater innovation efforts are needed within FEI if natural gas is to remain a viable fuel in the long term in light of those climate objectives. FEI has explained that existing gaps in its innovation funding remain unfilled, which its Innovation Fund is designed to address.

The Panel notes that FortisBC has been engaging in innovation initiatives since 2007 and intends to continue to pursue innovation to address climate initiatives even in the absence of an approved Innovation Fund. However, the limited scope of FEI's current innovation activities means FEI is unable to keep pace with the ambitious renewable gas targets set out in the CleanBC Plan. Given these circumstances, the Panel believes incremental funding for FEI to pursue such initiatives is warranted and required.

As for whether the shareholder or ratepayers should bear the costs of the Innovation Fund, the Panel finds that it is reasonable and in the public interest for FEI's ratepayers to bear the costs of FEI's Innovation Fund. This is because the benefits of the fund will accrue to ratepayers by ensuring cost-effective, safe and reliable gas solutions both in the short term and long term. Some of those benefits include:

- Improving gas pipeline inspections and reducing inspection costs;
- Providing cleaner and more affordable energy sources;
- Mitigating the risk of future rate increases; and

⁶⁵⁹ British Columbia Hydro and Power Authority Fleet Electrification Rate Application, Order G-67-20 with reasons for decision dated March 26, 2020.

- Ensuring the long-term viability of the gas utility by reducing the risk of stranded assets through the development of new technologies.

While the Panel acknowledges that the shareholder may also benefit from FEI's long-term financial viability and the successful deployment of commercialized innovative products and services, the shareholder to date has not been required to fund innovation activities for the benefit of ratepayers. FEI's need to devote more effort to advance innovation given recent government climate policies does not mean that the financial responsibility ought to shift from ratepayers to the shareholder. Ratepayers should reasonably be expected to fund innovation activities that are designed to provide ratepayer benefits.

As for the proposed governance structure and accountability framework for the Innovation Fund, the Panel finds no issue. The governance structure appears to be consistent with that used for similar funds in other jurisdictions and to reflect accepted best practices. Similarly, the Panel does not consider it necessary for FEI to seek annual approval of specific projects before they are initiated. The Panel agrees that such an approval process would cause uncertainty, delay in project implementation and missed opportunities that would defeat the fund's purpose. We are satisfied that the Annual Review process provides sufficient opportunity for the BCUC and interveners to receive and review progress reports on individual projects and monitor the operation of the fund.

As for whether the Innovation Fund and fixed rate rider amount to just and reasonable rates within the meaning of sections 59 and 60 of the UCA, the Panel notes that section 60(1)(b.1) of the UCA gives the BCUC discretion to "use any mechanism, formula or other method of setting the rate that it considers advisable." A fixed rate rider is one such mechanism. The Panel agrees with FEI that a fixed rate rider is more reasonable than a volumetric approach and considers there to be no need for the fixed rate rider to be shown separately on customers' bills as it will be included in FEI's tariff.

The Panel disagrees with ICG's view that the Innovation Fund offends cost of service principles. As noted, FEI already has in place another innovation fund, the national NGIF, that addresses gas innovation activities. The Innovation Fund is just a broader iteration of that fund, albeit one funded by ratepayers under the Proposed MRPs. The Panel further agrees that there is nothing inherently wrong with forecasting the costs likely to be incurred by that fund during the Proposed MRP term, using a bottom-up approach based on current proposals as a reasonable estimate of the anticipated expenditures. The Panel also notes that any monies that remain unspent in the Innovation Fund at the end of the Proposed MRP term will be returned to ratepayers. In short, the costs of the Innovation Fund will be limited to the amount of actual expenditures.

Accordingly, the Panel finds that FEI's proposed Clean Growth Innovation Fund and basic charge fixed rate rider of \$0.40/month are just, reasonable, and not unduly discriminatory and warrant BCUC approval pursuant to sections 59 and 60 of the UCA. The Panel also approves the establishment of an Innovation Fund deferral account for FEI, to capture both the innovation fund costs and the offsetting rider recoveries from customers. This deferral account will be non-rate base account, attracting a WACC rate of return and will continue through the term of the Proposed MRP. The Panel directs any unused balance in the deferral account to be returned to customers at the end of the Proposed MRP term through a disposal mechanism subject to approval by the BCUC. For greater clarity, to the extent FEI chooses to spend more on innovation

activities than the amount collected through the Innovation Fund rate rider during the MRP term, such expenditures will be to the account of the shareholder.

The Panel further directs FEI to include progress reports on the operation of FEI’s Innovation Fund and projects funded thereby.

6.0 Targeted Incentives

Along with the Innovation Fund, FortisBC is proposing a suite of six new targeted incentives (Targeted Incentives) in this MRP. They differ from the other incentives contained in the MRP because these Targeted Incentives do not require FortisBC to manage costs within an approved spending envelope so that any resulting savings accrue either to the ratepayers or the shareholders, or become subject to sharing between the ratepayers and the shareholders under the ESM. Instead, under FortisBC’s proposal, achievement of the Targeted Incentives would result in FortisBC’s shareholders earning additional specified basis points beyond their allowed ROE. FortisBC has not quantified the amount of effort and investment required to achieve the Targeted Incentives.⁶⁶⁰

The stated goal of these Targeted Incentives is to incent FortisBC to focus on new challenges and opportunities in its operating environment. FortisBC states that these incentives are designed as part of FortisBC’s longer-term initiatives to encourage the achievement of goals in “emerging and strategic areas” which will benefit customers and are in the public interest. FortisBC states this is consistent with the observation that utility regulators are “increasingly turning their attention to new aspects of utility performance, such as customer engagement..., environmental impacts, and clean energy policy goals.”⁶⁶¹ It asserts that these incentives “will benefit customers by advancing the adoption of cleaner, lower emissions energy solutions, and contribute to the realization of energy and emissions goals, increase customer engagement and manage rate increases through growth in system throughput.”⁶⁶²

The proposed incentive formula (except for the Power Supply Incentive) is:

$$\text{Targeted Incentive} = \text{Total Basis Points Achieved} \times \text{Equity Portion of Approved Rate Base}$$

FortisBC describes these Targeted Incentives as reward-only incentives and does not propose any financial penalty for not achieving specific targets. FortisBC states that this encourages the utility to expend efforts to achieve the targets within its existing O&M and capital envelope, and a penalty for failing to achieve a Targeted Incentive target could amount to a double penalty where the utility expends resources in pursuit of the incentive, but does not achieve it. Any missed annual incentives will be added to the final total incentive if the overall target associated with a specific Targeted Incentive is achieved at the end of the MRP (MRP Target), thereby ensuring sustained progress towards the goal. Notwithstanding that FortisBC may not meet all of the annual targets for the Targeted Incentives for each year of the MRP term, if the overall MRP Target for that Targeted Incentive is met at the end of Year 5, FortisBC will receive the full incentive (i.e., the maximum number of additional ROE basis points) for all of the years in which the annual targets were not met.⁶⁶³

⁶⁶⁰ Exhibit B-1, p. C-158.

⁶⁶¹ Ibid., p. C-157; Appendix C-8.

⁶⁶² Ibid., p. C-158.

⁶⁶³ Ibid.

6.1 Specifics of Targeted Incentives

The following table summarizes the major elements of the six proposed Targeted Incentives; four for FEI only, one for FBC only, and one for both FEI and FBC.⁶⁶⁴

Table 48: Summary of Proposed Targeted Incentives

Targeted Incentive	Applicable to	Success is measured as	Proposed Incentive (equivalent basis points)	Proposed MRP Target
Growth in Renewable Natural Gas	FEI	Exceeding forecast renewable gas volumes	10 BPS	14.5 PJs
Growth in Natural Gas for Transportation	FEI	Exceeding load growth forecast for transportation	10 BPS	25.0 PJs
GHG Emissions Reduction Customer	FEI	Exceeding forecast natural gas conversion activity	5 BPS	13,500 conversions
GHG Emissions Reduction Internal	FEI	Reducing internal GHG emissions below targeted	5 BPS	>30 tCO ₂ e/PJ avg. over the MRP term
Customer Engagement	FEI and FBC	Increasing the adoption of digital service channels	5 BPS	FEI: >48% avg. adoption over the MRP term FBC: >29% avg. adoption over the MPR term
Power Supply Incentive	FBC	Optimizing power purchases	First \$7.5 million of any reduction in Power Purchase Expense (PPE) will be to the benefit of customers. Any remaining reduction in PPE is apportioned 90 percent to customers and 10 percent to FBC.	

In addition to the MRP Target, each Targeted Incentive (except for the Power Supply Incentive (PSI) has specific annual incentive targets. Meeting those annual targets means that the utility will be entitled to receive an incentive in the amount of the associated increase in basis points for the specific years in which the annual targets are met. As for the PSI, once the MRP Target is met, the utility will get the maximum incentive. The reward does not increase with additional positive value added above and beyond the MRP Target and, as already noted, there will be no penalty for failure to meet any of the targets.

6.2 Size of the Incentives

The maximum achievable ROE for FEI if all targets were successfully achieved is 9.10 percent, which has a delivery rate impact of approximately 1.02 percent, or \$3.71 per year. The maximum achievable ROE for FBC is 9.54 percent, which results in a delivery rate impact of 0.62 percent, or \$8.18 per year.⁶⁶⁵

FortisBC asserts that five basis points are the minimum threshold to make pursuing incentives material. Using the 2019 approved rate base and equity thickness for FEI and FBC respectively, the equivalent reward for each five basis points in dollars is approximately:

⁶⁶⁴ Exhibit B-1, Table C8-1, p. C-159; Table C8-2, p. C-160; Table C8-3, p. C-161; Table C8-5, p. C-162; Table C8-7, p. C-163; Table C8-9, p. C-164; p. C-167.

⁶⁶⁵ Exhibit B-10, BCUC IR 96.6; This includes the Electric Vehicle Targeted Incentive, which FBC has withdrawn.

- FEI: \$4,497 million x 38.5 percent x 5 basis points = \$0.865 million
- FBC: \$1,342 million x 40 percent x 5 basis points = \$0.268 million⁶⁶⁶

Using the prevailing rate base and equity thickness, for FEI, the maximum dollar value if all MRP Targets were met in the first year would be \$6.055 million, or approximately \$31.511 million for the Proposed MRP term.⁶⁶⁷ For FBC, the maximum incentive (excluding the Electric Vehicle Incentive which was withdrawn and PSI) would be \$0.268 million for the first year or \$1.34 million for the Proposed MRP term. The actual dollar amounts would depend on each utility's equity thickness and actual rate base.⁶⁶⁸

In its Application, FortisBC provides tables identifying the “positive benefits to customers” which it states are well above the cost of the incentives and are in the public interest.⁶⁶⁹ Those tables quantify the customer benefits at about \$800 million for FEI ratepayers and between \$32 million to \$85 million for FBC ratepayers. As for the proposed accounting treatment, the Targeted Incentives will be calculated on a final and full-year basis. They will be included in the Annual Review materials two years subsequent (e.g., 2020 performance will be known in 2021 and be evaluated for incentives in the Annual Review for 2022 rates). This will result in a two-year lag in incorporating the effects of the incentives into the revenue requirement.⁶⁷⁰

6.3 Issues Arising

BCUC Jurisdiction to Approve Targeted Incentives

The question arises as to whether the BCUC has the statutory jurisdiction to approve Targeted Incentives. Some interveners point out that the UCA is silent on approval of Targeted Incentives as part of any ratemaking plan and does not provide any explicit authority for such approval. Targeted Incentives (except for the PSI for FBC which the BCUC has approved in the past) have not been previously approved by any regulator in Canada and they are relatively rare in other jurisdictions. ICG goes further and argues that the proposal violates the Fair Return Standard by allowing FortisBC's ROE to exceed its approved return in the absence of any evidence of increased risk; hence, the BCUC has no jurisdiction to approve Targeted Incentives.

On the jurisdictional question, FortisBC argues that the absence of Targeted Incentive programs in other Canadian jurisdictions is not determinative for three reasons:⁶⁷¹

- Utilities in other Canadian jurisdictions may well propose such mechanisms in the future;
- BC is at the forefront of transitioning to a lower carbon economy and FEI is a leader in developing NGT and RNG programs and needs Targeted Incentives to address rapid industry transition; and
- The BCUC has historically led by approving innovative regulatory mechanisms, by being the first to approve PBR plans in Canada and starting the trend for other Canadian jurisdictions (the suggestion being that the BCUC should now take the lead in approving Targeted Initiatives).

⁶⁶⁶ Exhibit B-10, BCUC IR 96.7.

⁶⁶⁷ BCSEA Final Argument, p. 47.

⁶⁶⁸ Exhibit B-6, BCSEA IR 10.1.

⁶⁶⁹ FortisBC Final Argument, pp. 245–247,

⁶⁷⁰ Exhibit B-1, p. C-167.

⁶⁷¹ FortisBC Final Argument, pp. 260–261.

FortisBC also refers to a number of detailed case studies of the UK, California and New York experiences implementing similar innovative regulatory mechanisms in support of approval of the Targeted Incentives.⁶⁷²

As for the absence of any specific mention of Targeted Incentives under the UCA, FortisBC argues that the BCUC may approve them under section 60(1) of the UCA, which requires the BCUC to have due regard to setting a rate that “encourages public utilities to increase efficiency, reduce costs and enhance performance” and “may use any mechanism, formula or other method of setting the rate that it considers advisable.” Further, FortisBC argues that Targeted Incentives are a form of performance-based ratemaking and the BCUC has for years approved such rates.⁶⁷³

Positions of Interveners

MoveUP, BCSEA and the CEC support the approval of some form of Targeted Incentives⁶⁷⁴ while BCOAPO and ICG oppose both in principle and on merits.⁶⁷⁵ Only BCSEA and ICG specifically address the jurisdictional issue.⁶⁷⁶

BCSEA

BCSEA agrees with FortisBC that the BCUC has jurisdiction to approved the Targeted Incentives as part of the “just and reasonable rates” requirement under sections 59 and 60 of the UCA based on FortisBC stating that “they encourage FEI and FBC to enhance their performance, will benefit customers, and are aligned with the public interest.”⁶⁷⁷ BCSEA also expresses some reservations about FortisBC’s assertion that the incentives are not related to FortisBC’s allowed ROE, but believes that is an issue for FortisBC’s ROE proceeding and not relevant to this proceeding.⁶⁷⁸ BCSEA also supports approval of the MRP Incentives deferral accounts.⁶⁷⁹

ICG

ICG argues that the BCUC lacks jurisdiction to approve the Targeted Incentives, except for the PSI, for two reasons. Firstly, ICG points out that section 60(1) of the UCA only gives the BCUC jurisdiction “to approve PBR incentives because such incentives seek, as characterized by FBC, to “minimize inputs” and are limited to “cost-cutting” which falls within the stated goal of setting rates to “encourage public utilities to increase efficiency, reduce costs and enhance performance.” Since the Targeted Incentives are not a cost reduction mechanism, the BCUC lacks jurisdiction to approve them under section 60(1).

Alternatively, by approving the Targeted Incentives, the BCUC would be approving returns to the utility that would exceed the Fair Return Standard by implication, without an assessment of whether FortisBC’s rate profile has risen to such an extent as to warrant an increase in its current rate of return for carrying out its business. ICG argues that shareholder returns should adhere to the Fair Return Standard, noting that in response to BCUC IR 96.1, FortisBC acknowledges:

⁶⁷² See Exhibit B-1-1, Appendix C8, Utility Performance Incentive Mechanisms, A Handbook for Regulators.

⁶⁷³ FortisBC Reply Argument, pp. 101, 108.

⁶⁷⁴ MoveUp Final Argument, p. 22; CEC Final Argument, p. 76; BCSEA Final Argument, p. 6.

⁶⁷⁵ BCOAPO Final Argument, p. 48; ICG Final Argument, p. 18–19.

⁶⁷⁶ BCSEA Final Argument, p. 46; ICG Final Argument, pp. 18–21.

⁶⁷⁷ *Ibid.*, p. 46; Exhibit B-10, BCUC IR 96.1.

⁶⁷⁸ *Ibid.*, p. 48.

⁶⁷⁹ *Ibid.*, p. 18.

The Targeted Incentives...are not being compensated by the approved rate of return. The approved rate of return is based on the Fair Return Standard, the legal test applied to ensure that investors receive the opportunity cost on the investment represented by the rate of return investors could expect to earn elsewhere without bearing more risk.

According to ICG, the guiding principle is that customers should not pay for additional incentives related to targets that the utility would meet absent the additional incentive, and incentives should be limited to those permitted by the Fair Return Standard.⁶⁸⁰

FortisBC Reply Argument

On the jurisdictional issue, FortisBC reiterates that the BCUC has approved performance-based rates for years that include built-in incentives to reduce costs. Targeted Incentives are no different, being incentives to utilities for achieving certain outcomes (i.e., increase efficiency, reduce costs and enhance performance). Not all incentives need to be for cost reduction, and the Targeted Incentives are simply part of the whole rate proposed under the MRP designed to achieve one or more (not necessarily all three) of the outcomes contemplated under section 60(1)(iii) of the UCA.

As for ICG's argument that Targeted Incentives offend the Fair Return Standard, FortisBC asserts it is a misconception, noting that the Fair Return Standard does not depend on the utility achieving specific business activities or outcomes. "Rather, the return on equity is compensation that investors receive for the opportunity cost on their investment represented by the rate of return investors could expect to earn elsewhere without bearing more risk."⁶⁸¹ In short, FortisBC states it is "the fair return on the capital invested by utilities"⁶⁸² as distinct from other service and financing requirements under the UCA.

FortisBC further points out that the Fair Return Standard is the same whether under PBR or COS ratemaking, and the BCUC has the obligation to set the fair return separate from other obligations under the UCA.⁶⁸³ It goes on to note that ICG appears to wrongly assume that the Fair Return Standard means that the utility's actual ROE always matches the approved ROE exactly. In FortisBC's view this is not the case as COS regulation incents utilities to find efficiencies to reduce costs below forecast to increase their achieved return. In conclusion, it states if Targeted Incentives did not actually produce any incentive (because a utility's actual ROE is always limited to its approved ROE), then there is no reason to have them.

Panel Determination

Jurisdictional Issue

The Panel acknowledges that the UCA is silent on the approval of Targeted Incentives. However, the absence of any explicit statutory authority under the UCA to approve Targeted Incentives is not determinative, nor is the fact that Targeted Incentives (except for the PSI) would be new in Canadian utility regulation. Novelty alone does not equate to the absence of jurisdiction. As part of its general rate making powers, section 60(1)(b.1) of

⁶⁸⁰ ICG Final Argument, pp. 18–21.

⁶⁸¹ Exhibit B-10, BCUC IR 96.1; FortisBC Reply Argument, p. 102.

⁶⁸² FortisBC Reply Argument, p. 105.

⁶⁸³ *Ibid.*, p. 108.

the UCA gives the BCUC discretion to “use any mechanism, formula or other method of setting the rate that it considers advisable.” As confirmed in the BCUC’s Decision on BC Hydro’s 2015 Rate Design Application, this provision allows the BCUC to consider rate-setting methodologies other than cost of service.⁶⁸⁴ The only caveat is that the rate must be just, reasonable and not duly discriminatory as required by sections 59 and 60. This is the basis upon which the BCUC has traditionally approved multi-year performance-based plans, which are a form of incentive ratemaking. In our view, there is no principled reason why Targeted Incentives are not consistent with incentive regulation simply because they are new. We observe that the Innovation Fund is also new but for the reasons articulated earlier warrants approval in the case of FEI.

Section 60(1)(b) of the UCA sets out specific factors that the BCUC must consider in setting a rate. However, those factors are not determinative by themselves, as evidenced by section 60(1)(a) which requires the BCUC to take into account all factors that it considers proper and relevant. If we find that specific Targeted Incentives meet relevant public interest regulatory goals and result in just, reasonable and not unduly discriminatory rates, then those Targeted Incentives may well be justifiable. If, for example, they enhance the utility’s performance as contemplated by section 60(1)(b)(iii), we would have the discretion to approve the Targeted Incentives in question.

We reject ICG’s argument that the BCUC lacks jurisdiction to approve Targeted Incentives because they offend the Fair Return Standard. As FortisBC points out, typically both cost of service and performance-based regulation contemplate that a utility may earn more than its allowed return at any time.

For the reasons articulated above, the Panel finds that the BCUC has the jurisdiction and the discretion to approve Targeted Incentives pursuant to section 60(1)(b.1) of the UCA.

Merits of the Proposal

Having determined that we have the jurisdiction to approve Targeted Incentives, the question is whether we *should* approve these Targeted Incentives as an appropriate means of incenting outcomes that are in the public interest and focus on utility outputs. In short, are we satisfied that FortisBC has made out a case for approval of any or all of these proposed Targeted Incentives on their merits?

As the incentives will be borne by ratepayers, the Panel considers it appropriate to assess the merits of the Targeted Incentives based on the following considerations:

- The incentives should relate to activities that would otherwise not be undertaken by the utility as part of its normal business. (Otherwise, the utility would be rewarded for simply doing what it ought to be already doing in carrying out its usual utility operations);
- In order to justify the associated additional return, the incentives should entail stretch targets that are not readily achievable without significant additional or innovative efforts on the part of the utility itself, as opposed to the utility simply benefiting from third party contributions or legislative changes facilitating the achievement of targets;

⁶⁸⁴ British Columbia Hydro and Power Authority (BC Hydro) 2015 Rate Design Application, Decision and Order G-5-17 dated January 20, 2017, pp. 64, 66.

- The achievement of targets should provide a demonstrable benefit for ratepayers; and
- The amount of the reward should be reasonable and proportional to the amount of effort required to achieve the award so as to mitigate the risk that the utility will shift focus away from its normal utility business endeavours to pursuit of the incentives instead.

We now consider the merits of the particular proposed incentives.

Growth in Renewable Gas Incentive (FEI)

The reward of 10 basis points (for FEI estimated at \$1.73M annually and \$8.65 M over the MRP term based on its current equity thickness) requires that FEI successfully exceed its forecast renewable gas volumes. FEI's proposed MRP Target for renewable gas is 14.5 petajoules (PJs) at the end of the MRP term. In addition to the overall MRP Target, FEI has proposed the following annual targets for each of the five years of the MRP term:

- 2020 – 1 PJ;
- 2021 – 1.5 PJs;
- 2022 – 2 PJs;
- 2023 – 4 PJs; and
- 2025 – 6 PJs.

As already noted in Section 5.0 of this Decision, at recent average throughput on FEI's gas system, a 15 percent renewable gas target would require approximately 30 PJs of renewable supply. The Panel agrees with BCSEA's assessment that based on FEI's current level of renewable supply, the MRP Target of 14.5 PJs is a very ambitious target as it requires FEI to increase its current renewable gas supply by almost 50 fold by 2024. In order to do so, FEI cannot take a "business as usual" approach and will have to go "above and beyond" to achieve the MRP Target. With respect to this Targeted Incentive, therefore, the Panel agrees with FortisBC's proposition that it has "been designed to create outcomes above what is normally expected in the regular course of business."⁶⁸⁵

While the Panel agrees that the MRP Target of 14.5 PJs of renewable gas appears on its face to be a very ambitious target for FEI to achieve, we are concerned about changes in the renewable gas market and legislative changes to the GGRR which may make it easier for FEI to achieve its renewable targets over the next five years. Nothing in the current GGRR would prevent FEI from acquiring renewable gas from outside British Columbia to meet its renewable gas targets. Furthermore, in facilitating progress towards meeting the CleanBC Plan's renewable gas targets, the Provincial legislature may raise the current dollar threshold for acquisitions of renewable gas under the GGRR from the current \$30 maximum threshold or increase the maximum volume of renewable gas allowed as part of FEI's total natural gas portfolio, thus enabling more renewable gas acquisitions by FEI to occur without requiring BCUC approval.

Given the uncertainty outlined above, the Panel denies FortisBC's request for approval of the Renewable Gas Targeted Incentive. However, FEI may file a new proposal for a Renewable Gas Targeted Incentive as part of the Annual Review process which reflects any policy or legislative developments and balances risk and reward for BCUC review and approval.

⁶⁸⁵ Exhibit B-10, BCUC IR 96.1.

Furthermore, for the reasons articulated below, the Panel denies the request from FortisBC for approval of the remaining five proposed Targeted Incentives.

Natural Gas for Transportation Incentive (for FEI)

The Panel is not persuaded that an incentive is appropriate in this case. FEI already has a functioning NGT program facilitated by the GRR. In order to preserve load in the natural gas transportation sector in the face of climate policies for electrification, FEI is actively pursuing opportunities in this area. Since FEI's investment in NGT infrastructure is reflected in its rate base, FEI is already incented to pursue expansion of the NGT program. Further, the GRR provisions facilitate its activities in this area such that success in reaching the proposed target is readily achievable.

GHG Emissions Reduction Incentive – Customers (FEI) and GHG Emissions Reduction Incentive – Internal (FEI)

Similar to its assessment of the Natural Gas for Transportation Incentive, the Panel is not persuaded that pursuit of GHG emissions reduction activities is something that is above or beyond the ordinary course of business for FEI as a natural gas utility operating in a low carbon environment. FEI acknowledges it has been pursuing activities in response to the Province's first climate plan introduced in 2007 (some 13 years ago) in order to transition to a low carbon world. The CleanBC Plan is the latest iteration of similar plans, albeit one with much more ambitious targets. While GHG emissions reduction strategies may have evolved since 2007 and are likely to continue to evolve, FEI has brought forward initiatives in this area in the past. It has indicated it will continue to do so, whether or not the BCUC approves these Targeted Incentives. In the Panel's view, there has been no significant change in this area requiring further extraordinary effort or innovation on the part of FEI for which it should be rewarded by an additional incentive. Accordingly, the Panel declines to approve these two Targeted Incentives on the basis that they are unnecessary to incent FEI to do what it ought to be doing already in this area as a prudent utility operator in response to ongoing climate change policies.

Customer Engagement - Digital Service Adoption (for FEI & FBC)

With respect to this incentive, the Panel agrees with ICG that customer engagement (in whatever form that entails) is a matter that is within the utility's regular business and that it has always been a requirement of doing business. The fact that digital service channels may be a new, better more efficient and popular means for customer engagement does not mean that greater efforts are required from the utility to entice ratepayers to convert to such service. Indeed, if successful in these conversion efforts, the utility should be able to derive efficiencies through reduction or elimination of more traditional methods of customer engagement. In short, there may be a sufficient trade-off in terms of utility costs and benefits to drive that conversion. Furthermore, the Panel notes that since 2014, FortisBC has devoted efforts and resources to drive this conversion, apparently without any need for specific incentives to do so. The Panel also notes that FortisBC has requested, and the Panel has earlier approved as part of its Decision, incremental O&M under the MRP for customer engagement initiatives as part of this MRP. In light of this, the Panel does not see this incentive as necessary or warranted.

PSI Incentive (for FBC)

As the CEC points out, power supply costs form 43 percent of FBC's total revenue requirement and constitute the single largest component impacting customer rates. Because of that, FBC must actively manage those costs and has been doing so for the last 20 years. Given the magnitude of those costs, ongoing active management of those costs is already a priority in the ordinary course of business for FBC. As ICG notes, the management of

power supply costs is done without any incentives under the Current PBR Plan and is “considered normal stewardship of FBC’s business.” The Panel agrees with that characterization and finds that an additional incentive is not warranted. Although previous BCUC Panels have provided FBC with incentives to optimize its power supply portfolio in the past, this Panel is not persuaded or bound by those decisions.

Potential New Targeted Incentives

Although the panel has rejected all of FortisBC’s proposed Targeted Incentives on their merits, we emphasize that we are not opposed to incentives on principle. We view incentives as having a potential role in utility ratemaking, provided that they are well thought out, proportional, and bring about outcomes that are above and beyond what may reasonably be expected of a prudent utility operator.

7.0 Annual Review Process

The Annual Review process is designed to provide the BCUC, interveners and interested parties the opportunity to review the performance of the Utilities over the prior year. Under the Current PBR Plans, the Annual Review is held following the closure of the previous year and has generally included a workshop, a round of IRs, submissions from the parties and a BCUC determination of rates for the following year.

FortisBC states that it proposes to continue with the Annual Review process for the Proposed MRPs and expects to present the current year’s projections and the next year’s forecasts for key measures including:

- Customer growth, volumes and revenues;
- Year-end and average customers, and other cost driver information including inflation;
- Expenses, determined by the indexing formula plus items forecast annually;
- Capital expenditures (as provided for by the capital forecast with FEI’s Growth capital determined by the indexing formula), plus other items forecast annually;
- Plant balances, deferral account balances and other rate base information and depreciation and amortization to be included in rates;
- Projected earnings sharing for the current year and true-up to actual earnings sharing for the prior year;
- Service Quality Indicator results;
- Targeted incentive results; and
- Reporting on the Innovation Fund’s status.⁶⁸⁶

Positions of Interveners

CEC

The CEC submits that the Annual Reviews have not replaced the transparency that exists with a comprehensive and regular BCUC review. This is because the process has constrained detailed review of whether there was

⁶⁸⁶ Exhibit B-1, p. C-13.

justification for savings or an opportunity to critique the formulas. The CEC submits that this has resulted in the development of a new MRP without careful scrutiny of the Current PBR Plans.

Looking forward, the CEC submits that any future PBR should include a separate and distinct process for review of the MRP both at its midterm and at the end of the MRP term. In its view an end of term review prior to a new rate plan being introduced would create an opportunity to review what was successful and what was not. It believes this information could have been incorporated into developing this MRP or potentially result in a decision to pursue COS ratemaking instead.

Similarly, the CEC submits that having a mid-term review would allow issues to be raised during the MRP on a go-forward basis. In the CEC's view it is time consuming, difficult and inefficient to have a retrospective review of the MRP in the context of a new application. Therefore, the BCUC should incorporate a formal mid-term review to ensure the MRP is working as intended for both ratepayers and the Utilities.⁶⁸⁷

BCSEA

BCSEA's view is that the Annual Review process works reasonably well but it could and should be improved by reviewing FortisBC's annual Sustainability Report. BCSEA states that this has become particularly important now that "FortisBC situates its performance on individual SQI's within its transition to a lower carbon future." It considers the Sustainability Report ideal to assist the BCUC and the participants in reviewing the Utilities performance under the Proposed MRPs term. BCSEA's position is that the Sustainability Report should be filed at each Annual Review as the performance on 40 indicators of sustainability would prove to be useful information.⁶⁸⁸

FortisBC Reply Argument

FortisBC states that one of the benefits of an MRP is regulatory efficiency noting that it saves costs and frees up management resources. It argues that it should not be designed to replicate a COS review, as the CEC has proposed, as it creates regulatory inefficiency. FortisBC points out that the scope and detail of the Annual Review process was significantly increased for the Current PBR Plans (inclusive of an application, IRs, a public hearing and written argument) and an evaluation of these plans was ongoing throughout the Current PBR term. Because of this, the mid-term and end of year reviews are unnecessary and the CEC's proposals are without merit.

Concerning the BCSEA's request that FortisBC's Sustainability Report and GHG reduction reporting be included in the Annual Review materials, FortisBC points out that this information is publicly available. Its expectation is that the interveners are free to ask questions within the Annual Review proceeding.⁶⁸⁹

Panel Determination

The Annual Review process has evolved over the course of the Current PBR Plans and includes most of the processes that are normally part of a revenue requirements proceeding. The format has worked reasonably well

⁶⁸⁷ CEC Final Argument, pp. 88–89.

⁶⁸⁸ BCSEA Final Argument, pp. 19, 26–27.

⁶⁸⁹ FortisBC Reply Argument, pp. 56–57.

in that it has provided all parties the opportunity to openly discuss the Utilities' performance as well any issues that have arisen in the previous year. The Panel believes it is reasonable to use current practice as a guide for Annual Reviews within these MRPs as no specific concerns were raised with respect to the content of the Annual Review process or suggestions for change. **Therefore, with consideration given to FortisBC's submissions on content, the Panel has determined that the following topics will provide a framework for the MRP Annual Reviews:**

1. **Review of the current year projections and the upcoming year's forecast. These include the following items:**
 - **Customer growth, volumes and revenues;**
 - **Year-end and average customers, and other cost driver information including inflation;**
 - **Expenses, determined by the indexing formula plus items forecast annually;**
 - **Capital expenditures (as provided for by the capital forecast with FEI's Growth capital determined by the indexing formula), plus other items forecast annually;**
 - **Plant balances, deferral account balances and other rate base information and depreciation and amortization to be included in rates; and**
 - **Projected earnings sharing for the current year and true-up to actual earnings sharing for the prior year;**
2. **Identification of any efficiency initiatives that the Utilities have undertaken, or intend to undertake, that require a payback period extending beyond the PBR plan period with recommendations to the BCUC with respect to the treatment of such initiatives;**
3. **Review of any exogenous events that the Company or stakeholders have identified that should be put forward to the BCUC for review;**
4. **Review of the Utilities' performance with respect to SQIs. Bring forward recommendations to the BCUC where there have been a "sustained serious degradation" of service;**
5. **Assess and make recommendations with respect to any SQIs that should be reviewed in future Annual Reviews;**
6. **Reporting on the Innovation Fund status; and**
7. **Assess and make recommendations to BCUC on potential issues or topics for future Annual Reviews.**

In addition to these specific topics, the list may be expanded to include any other topic where the BCUC considers there to be a need for review.

In addition, BCSEA has proposed that a copy of the Sustainability Report be included as part of the Annual Review materials. The Panel agrees with the BCSEA that the information within this report might be helpful in conducting the Annual Review. However, we note that the document is public and FortisBC has stated that it expects that interveners will be free to ask questions within the Annual Review process. Given FortisBC's response the Panel sees no need to require the Sustainability Report be filed as part of the Annual Review materials.

The CEC has proposed that in addition to the Annual Reviews, there be a provision for a mid-term review and a final review. The Panel does find value in there being an assessment of the approved MRPs prior to the end of their term. The addition of an assessment review process later in the term would create the opportunity to assess ‘what is working and what is not’. This would be useful in determining the approach to ratemaking following the end of the term of these MRPs. To be helpful, the timing of this process must be sufficiently early that its results can inform the development of the next ratemaking application. Therefore, the Panel will leave the timing and content for discussion and consideration by the parties at a future Annual Review.

8.0 Summary of Panel Determination on the Proposed MRPs

8.1 Principles Underlying the Proposed MRPs

In Final Argument, FortisBC emphasizes that the Proposed MRPs adhere to the five Rate Plan Principles used in the Current PBR Plans, which are consistent with those used in other jurisdictions including Alberta:⁶⁹⁰

1. The MRP should, to the greatest extent possible, align the interests of customers and the utility; customers and the utility should share in the benefits of the MRP.
2. The MRP must provide the utility with a reasonable opportunity to recover its prudently incurred costs including a fair rate of return.
3. The MRP should recognize the unique circumstance of FortisBC that are relevant to the MRP design.
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.
5. The MRP should be easy to understand, implement and administer and should reduce the regulatory burden over time.

No intervener has taken issue with the proposition that these principles should apply to the Proposed MRPs. Fundamentally, disagreement arises from the application of these principles to specific elements of the MRPs, as well as the relative importance and priority amongst these principles. Some interveners further question whether the elements of the plans considered as a whole sufficiently satisfy these principles.

The Panel agrees that these principles ought to guide its assessment of the efficacy of the Proposed MRPs. However, the Panel views it unreasonable to expect every element of the Proposed MRPs to reflect the five principles outlined above. In reviewing this Application, the Panel assesses, on a holistic basis taking all of the plan elements into account, whether the MRPs strike an appropriate balance of the principles so as to result in a fair, reasonable and not unduly discriminatory rate-setting framework. In that regard, the Panel rejects the suggestion that any one of the five principles is of a higher order of priority or importance than the others.⁶⁹¹ As FortisBC submits, the Proposed MRPs should reflect all of these principles,⁶⁹² albeit in varying degrees. Whether the plans actually achieve all of these objectives will not be known until the end of the MRP term. However, the Panel needs to satisfy itself whether, from a design perspective and considering the Proposed MRPs as a whole, the plans reflect these general principles.

⁶⁹⁰ FortisBC Final Argument, pp. 29–31.

⁶⁹¹ Exhibit C7-5, p. 6.

⁶⁹² FortisBC Final Argument, p. 31.

With this in mind, we highlight in the following table some of our key determinations with respect to various elements of the Proposed MRPs, which demonstrate the balance we have attempted to strike between ratepayer and utility interests.

Table 49: Highlights of the Elements of the Proposed MRPs and Panel Determinations

Element of Proposed MRPs	FortisBC Proposal	Panel Determination
Formula O&M	<ul style="list-style-type: none"> Elimination of 50 percent multiplier. Customer growth forecast with annual true-up. Per customer basis with specific adjustments to 2018 Actual Base O&M. 	<ul style="list-style-type: none"> 50 percent multiplier increased to 75 percent. Customer growth forecast with annual true-up. Per customer basis with limited adjustments to 2018 Actual Base O&M.
Capital	<p><i>Formula for FEI Growth</i></p> <ul style="list-style-type: none"> Elimination of 50 percent multiplier. Forecast of gross customer additions with annual Unit cost basis with specific adjustments to base. <p><i>Forecast</i></p> <ul style="list-style-type: none"> Five year forecast for all other Regular capital (FEI and FBC). 	<p><i>Formula for FEI Growth</i></p> <ul style="list-style-type: none"> Elimination of 50 percent multiplier. Forecast of gross customer additions with annual Unit cost basis with limited adjustments to base. <p><i>Forecast</i></p> <ul style="list-style-type: none"> Five year forecast for all other Regular capital (FEI and FBC). Capital to be reforecast for 2023-2024.
Term	Five years (2020-2024)	Five years (2020-2024)
I-Factor	Composite index: 55 percent AWE:BC + 45 percent CPI:BC	Composite index with specific weightings to be calculated each year for FEI and FBC.
X-Factor	No X-Factor (Implied zero percent X-factor)	X-Factor of 0.5 percent for both FEI and FBC
Exogenous (Z) Factor	Elimination of Materiality Threshold	Materiality Threshold reduced to \$500 thousand for FEI and \$150 thousand for FBC.
Flow-throughs Items & related Deferral Accounts	Flow-through deferral account as well as a number of other deferral accounts.	See Section 3.2.8 for specific elements
ESM	50/50 symmetrical ROE sharing	50/50 symmetrical ROE sharing
ECM	An ROE add-on to the Approved ROE for the two years after the end of Plans' term calculated as one half of the difference between average achieved and authorized ROE, to a maximum of 50 basis points, over the last two years of the Plan.	FortisBC to apply for approval of ECM at any time in the last three years of the term, either in advance or following the action/initiative giving rise to savings beyond the term. The annual net savings identified under this ECM will be shared equally for a maximum of three years following the end of the term.
SQI's	Adjustments to specific benchmarks, thresholds and annual basis of calculation.	Adjustments to specific benchmarks, thresholds and annual basis of calculation.
Off-Ramp	Triggered if earnings in any one year varies from approved ROE by +/- 200 bps (post sharing) and/or +/- 150 (post sharing) in two consecutive years.	Triggered if earnings in any one year varies from approved ROE by +/- 150 basis points (post sharing).
Clean Growth Innovation Fund	An Innovation Fund aimed at accelerating investments in new technologies is proposed. Funded by all FortisBC customers through a fixed rate rider.	Innovation Fund for FEI only.
Targeted Incentives	<ul style="list-style-type: none"> Growth in RNG (FEI) Growth in NGT (FEI) GHG Emissions Reduction Customer and Internal Power Supply Incentive (FBC) Customer Engagement (FEI & FBC) 	All Targeted Incentives denied

8.2 Overall Panel Determination

As some interveners and the Panel have already observed, the Proposed MRPs are not a true or traditional form of performance-based incentive plans. Instead, they are a hybrid and somewhat unique model, as they contain elements more commonly found in COS ratemaking regimes, such as the use of forecasts instead of formulas. Nonetheless, based on the Panel's collective judgment, the Panel is satisfied that when considered in their totality, overall the approved elements of the Proposed MRPs strike the right balance between the interests of ratepayers and the utility and appropriately address risks and rewards over the five years of the MRP term. The Panel does not consider that its determinations favour the utility over ratepayers, or vice versa. Accordingly, the Panel finds that the resulting approved MRPs provide just, reasonable and not unduly discriminatory rates for FortisBC ratepayers pursuant to sections 59 to 61 of the UCA.

Subsequent Event – Impact of the COVID-19 Pandemic

Much has changed in the world since the close of the evidentiary record in this proceeding. The intervening ongoing COVID-19 pandemic (Pandemic) has raised questions about the validity of some fundamental assumptions underlying various elements of the Proposed MRPs, including for example, bad debts, capital forecasts, and the timing of scheduled capital projects. On reflection, the Panel has concluded that the situation is fluid with many uncertainties and outcomes that are difficult to predict and manage in the circumstances. Nonetheless, the Panel must adjudicate the merits of this Application based on the evidence submitted in the proceeding.

On balance, the Panel is reasonably satisfied that the Proposed MRPs, with their Annual Review process and the additional safeguards of reciprocal off-ramps and exogenous factors, provide FortisBC and ratepayers with sufficient flexibility and avenues for relief should that become necessary. In that regard, the Panel notes that the BCUC has recently granted permanent approval to FortisBC to provide temporary COVID-19 rate relief for residential and small commercial customers and to capture the cost of that relief in a deferral account whose disposition will be subject to determination in a subsequent proceeding.⁶⁹³ The Panel notes that FortisBC may apply to the BCUC for further relief as needed as this Pandemic evolves.

9.0 Summary of Directives

This Summary is provided for the convenience of readers. In the event of any difference between the Directions in this Summary and those in the body of the Decision, the wording in the Decision shall prevail.

	DIRECTIVE	PAGE
1.	The Panel therefore finds these positive SQI results to be a further indication that the Current PBR Plans have been successful.	15
2.	Therefore, the Panel determines, pursuant to section 60 (1) (b.1) of the UCA, that a multi-year performance-based approach will result in just and reasonable rates and a review of the Proposed MRPs Application is warranted	22
3.	The Panel approves the continuation of a formula or index-based approach for FEI and FBC Controllable O&M.	26

⁶⁹³ FBC Application for Approval of COVID-19 Customer Recovery Fund Deferral Account, Order G-133-20 dated June 2, 2020; FEI Application for Approval of COVID-19 Customer Recovery Fund Deferral Account, Order G-132-20 dated June 2, 2020.

	DIRECTIVE	PAGE
4.	The Panel approves the continuation of a formula or index-based approach for FEI Growth capital.	29
5.	The Panel approves- Gross Customer Additions as the primary growth factor element to be used for the FEI Growth capital formula.	30
6.	The Panel denies FortisBC's request to set the growth factor multiplier at 100 percent. The Panel directs FortisBC to set the growth factor multiplier at 75 percent.	36
7.	The Panel approves the use of forecast average number of customers and the related true-up mechanism for calculating the FEI and FBC growth factor.	37
8.	The Panel approves FortisBC's proposal to increase the growth factor multiplier from 50 percent to 100 percent for FEI Growth capital.	41
9.	The Panel approves FortisBC's proposal to eliminate the lagged actual customer approach for FEI Growth capital used in FEI's Current PBR Plan. The Panel also approves FortisBC's proposal to use forecast Gross Customer Additions with true-up to actual amounts in each test year for the previous year's forecasts.	41
10.	Therefore, the Panel approves a term of five years for FortisBC's MRPs covering the period 2020 through 2024.	44
11.	<p>Based on these findings the Panel determines that the I-factor formula will be as follows:</p> $I = X \times AWE:BC_{t-1} + Y \times CPI:BC_{t-1}$ <p>Where:</p> <ul style="list-style-type: none"> • I = Inflation Factor • AWE:BC = labour index • CPI:BC = non - labour index • t - 1 = most recent July to June value • X = the previous year's labour ratio; and • Y = the previous year's non-labour ratio. <p>FortisBC is directed to provide the results of the completed formula based on 2019 results for FEI and FBC to set the base for 2020 as part of its compliance filing. Thereafter, the formula will be informed by the previous year's results and reviewed as part of the Annual Review process.</p>	48
12.	The Panel rejects FortisBC's argument that introducing a stretch factor would be unreasonable.	61
13.	Therefore, in consideration of regulatory decisions in other jurisdictions and using our experience and judgement, the Panel determines that an X-Factor of 0.5 percent inclusive of the stretch factor is applicable for both FEI and FBC for the Proposed MRP term.	61-62

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14.	Therefore, the Panel finds that maintaining materiality thresholds for FEI and FBC remains appropriate and rejects FortisBC's proposal to eliminate them.	65
15.	Therefore, without considering the merits of each of these examples, the Panel, guided by the potential for material impact on each of the Utilities and using its best judgement, determines that a more appropriate exogenous factor materiality threshold for FEI is \$500,000 and for FBC \$150,000.	65
16.	Accordingly, the Panel modifies the materiality factor criteria for exogenous factors to set the materiality threshold at \$500,000 for FEI and \$150,000 for FBC.	65
17.	Subject to approval by the BCUC for inclusion of FBC's EV charging stations in rate base, the Panel approves FBC's request to forecast costs associated with EV charging stations and to record the related forecast cost of service variances in the Flow-through deferral account. The Panel also approves flow-through treatment for revenues related to EV Charging stations.	73
18.	The Panel approves FortisBC's proposal for forecast variances in controllable depreciation, interest and tax expenses be subject to ESM rather than flow-through treatment.	74
19.	The Panel approves FortisBC's proposal for forecast variances related to certain controllable Other Revenue components to be subject to the ESM rather than flow-through treatment.	74
20.	The Panel approves FEI's proposal to capture variances in integrity digs in the Flow-through Deferral Account.	74
21.	The Panel approves FEI's proposal to move controllable LNG O&M costs to index-based O&M costs and to forecast the variable portion of LNG O&M cost and treat forecast variances as flow-through.	74
22.	The Panel does not approve flow-through treatment for incremental regulatory and policy driven costs, including new Mandatory Reliability Standards.	75
23.	The Panel approves the continuation of the general Flow-through deferral account for the MRP term of 2020 through to 2024, subject to the adjustments and directives above.	75
24.	Accordingly, the Panel directs FEI to provide a detailed analysis of the individual forecast variances recorded in the Flow-through deferral account in each Annual Review.	75
25.	The Panel approves the establishment of a BCUC Levies Forecast Variance deferral account for FBC, to capture the variance between the annual forecast and actual BCUC levies. The Panel also approves a one-year amortization of the balance of this account.	75
26.	The Panel approves proposed changes in treatment of FAES overhead recoveries.	75
27.	The Panel approves the continuation of the BVA transfer mechanism for RNG Program costs until the RNG Program and related BVA are otherwise amended by the BCUC.	75

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28.	However, the Panel approves that interconnection costs for the seven projects approved under the RNG Pilot Program be accounted for in the BVA consistent with other interconnection costs.	75
29.	The Panel approves the establishment of a non-rate base MRP Incentives deferral account for FEI and FBC, attracting WACC, to capture the amounts determined through the ESM as approved by the Panel in Subsection 3.2.9 of the Decision. FortisBC is directed to make a final determination of the ROE for sharing after the year end, with any differences between the projected and actual amount included in the calculation of the earnings sharing for the following rate setting year.	76
30.	The Panel approves the Proposed ESM for FEI and FBC resulting in a 50 percent sharing of the achieved ROE above or below the allowed ROE.	82
31.	The Panel denies FortisBC's ECM proposal.	86
32.	Therefore, the Panel determines the following process for the handling of an ECM application: <ol style="list-style-type: none"> 1. An ECM can be applied for at any time in the last three years of the MRPs, either in advance or following the action or initiative being undertaken 2. For proposed activities where identifiable savings are expected to extend beyond the term of the MRP, FortisBC is to file an ECM proposal describing the initiative, its timing, costs and benefits and savings. 3. Parties will have the opportunity to review and comment on the proposal and the BCUC will determine whether to approve the ECM proposal (an Approved ECM Initiative). 4. FortisBC must submit details of continued savings annually under an Approved ECM Initiative as part of the Annual Review process. The net savings will be shared equally between ratepayers and the Utilities and will carry forward past the end of the MRP for a maximum period of three years. 	87
33.	With these considerations in mind, the Panel approves the SQIs and related benchmarks and thresholds for the Proposed MRPs as outlined in Table 30.	96
34.	Therefore, the Panel approves FBC's increase of the benchmark to 98 percent but rejects the proposal to set the threshold at 95 percent.	98
35.	In the view of the Panel a rolling three-year average benchmark would make it difficult to detect changes in service quality and therefore, rejects ICG's suggestion that FBC calculate the benchmark on that basis. Given the requirement for updated benchmarks and thresholds for SAIDI and SAIFI, the Panel directs FBC to propose new benchmarks and thresholds in the compliance filing to this decision. In addition, as agreed to by FBC, the Panel also directs FBC to include a discussion of major events relevant to the SAIDI and SAIFI results in future Annual Review materials.	99

	DIRECTIVE	PAGE
36.	provisions outlined in the Current PBR Plan Decisions continue to be reasonable. Therefore, the Panel determines that the existing approved process for interpreting metric performance is to remain in effect over the term of the MRPs.	99
37.	<p>In addition to the SQIs, the Panel approves the following informational indicators for the Utilities:</p> <ul style="list-style-type: none"> • Customer Satisfaction Index (measures overall customer satisfaction) – FEI and FBC; • Average Speed of Answer (average number of seconds to answer emergency and non-emergency calls) – FEI and FBC • Transmission Reportable Incidents (number of reportable incidents to outside agencies) – FEI only • Leaks per KM of Distribution System Mains (number of leaks on the distribution system per KM of distribution system mains) – FEI only • Generator Forced Outage Rate (percent of time a generating unit is removed from service due to component failure or other events) – FBC only • Interconnection Utilization (percent of time that an interconnection point was available and providing electrical service to wholesale customers) – FBC only <p>The Utilities are directed to report on these informational indicators along with the SQIs as part of the Annual Review process.</p>	99-100
38.	The Panel determines that for the Proposed MRPs, the off-ramp will be triggered if earnings in any one year vary from the approved ROE by more than +/- 150 basis points (post sharing).	101
39.	<p>The Panel approves the following incremental O&M funding for FEI:</p> <ul style="list-style-type: none"> • Controllable LNG O&M – 100 percent of the incremental amount requested of \$1.853 million; • Customer Expectations and Customer Engagement – 50 percent of the incremental amount requested resulting in a total for both categories being set at \$2.36 million; • Indigenous Relations – 100 percent of the incremental amount requested of \$0.888 million; and • System Operations, Integrity and Security – 100 percent of the incremental amount requested of \$4.808 million. 	114

	DIRECTIVE	PAGE
40.	<p>Accordingly, the Panel directs FEI to provide the following information related to System Operations, Integrity and Security expenditures in its future revenue requirements applications over the term of the Proposed MRPs:</p> <ol style="list-style-type: none"> 1. A breakdown and explanation of both annual and cumulative variances between forecast/actual and formula O&M related to System Operations, Integrity and Security expenditures, which quantify the variances attributable to the following areas: <ul style="list-style-type: none"> • Integrity management; • Maintaining system infrastructure; • Operations compliance and safety; • Cyber security; • Data analytics; • Gas control; • Canadian Energy Pipelines Association (CEPA) participation; and • Any other significant factors or miscellaneous items. 2. A description of how FEI is prioritizing its System Operations, Integrity and Security expenditures. 	115
41.	<p>The Panel approves the following incremental O&M funding for FBC:</p> <ul style="list-style-type: none"> • Engagement - 50 percent of the incremental amount requested being \$0.040 million; and • System Operations, Integrity and Safety – 100 percent of the incremental amount requested of \$0.683 million; 	117

	DIRECTIVE	PAGE
42.	<p>Accordingly, the Panel directs FBC to provide the following information related to System Operations, Integrity and Security expenditures in its future revenue requirements applications over the term of the Proposed MRPs:</p> <ol style="list-style-type: none"> 1. A breakdown and explanation of both annual and cumulative variances between forecast/actual and formula O&M related to System Operations, Integrity and Security expenditures, which quantify the variances attributable to the following areas: <ul style="list-style-type: none"> • Tree management; • Generation dam safety; • Network operations apprentice program; • Cyber security; • Data analytics; and • Any other significant factors or miscellaneous items. 2. A description of how FBC is prioritizing its System Operations, Integrity and Security expenditures. 	118
43.	Subject to the adjustments determined by the Panel in Subsection 4.1 above and its determinations 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.	118
44.	The Panel approves FortisBC's proposal to use an average of the 2016-2018 actual unit costs for determining the Base Unit Cost for FEI's Growth capital formula.	122
45.	The Panel approves FortisBC's proposal to adjust the 2016-2018 average actual unit costs for the increase related to the contractor pricing, regional growth activity and testing installations.	122
46.	The Panel rejects FortisBC's proposal to adjust the 2016-2018 average actual unit costs for an increase in the field quality assurance costs and for muster kit & material allocation.	122
47.	The Panel approves FEI's 2019 Growth Capital Base Unit Cost, subject to the recalculation of the unit cost amount for the Panel's rejection of FEI's requests for adjustments related to field quality assurance costs and the muster kit & material allocation. The Panel directs FortisBC to provide an updated 2019 Growth Capital Base Unit Cost for FEI as part of the compliance filing relating to this Decision.	122
48.	The Panel approves FortisBC's proposal to use a forecast approach for FEI Sustainment capital and FBC Regular capital.	131
49.	Given these opposing concerns, the Panel directs FortisBC to file an updated forecast of the 2023 to 2024 capital expenditures in the 2023 Annual Review.	131

	DIRECTIVE	PAGE
50.	The Panel approves the level of forecast FEI Sustainment capital and FBC Regular capital to be incorporated in rates for the three-year period 2020-2022.	131
51.	<ul style="list-style-type: none"> • The Panel approves the continuation of the current process to review Major Projects outside of the Proposed MRPs; and • The Panel also approves the establishment of CPCN thresholds for FEI and FBC of \$15 million and \$20 million, respectively, for the proposed MRP term. 	132-133
52.	The Panel approves the changes to FEI’s depreciation rates in the amounts set out in Table D2-3 in Section D2 of the Application and to Net salvage rates in the amounts set out in Table D2-4 in Section D2 of the Application, to be used in the determination of rates for FEI effective January 1, 2020.	135
53.	The Panel also approves the changes to FBC’s depreciation rates in the amounts set out in Table D2-10 in Section D2 of the Application and to Net salvage rates in the amounts set out in Table D2-12 in Section D2 of the Application, to be used in the determination of rates for FBC effective January 1, 2020.	135
54.	Accordingly, the Panel directs FortisBC to update the depreciation studies for FEI and FBC prior to or along with its next RRA following the Proposed MRPs.	136
55.	The Panel finds it is acceptable for FortisBC to continue to use the ALG method of depreciation.	136
56.	The Panel approves the modification to the approved Lead-Lag days as set out in Table D3-1, Section D3.2 of the Application. The Panel approves the modification to the Lead-Lag days for FBC as set out in Table D3-2, Section D3.3 of the Application.	137
57.	The Panel approves FortisBC’s proposed allocation methodologies for: shared services between FEI and FBC; corporate services between FHI and FEI; and corporate services between FEI and FBC.	140
58.	The Panel approves FEI’s proposed capitalized overhead rate of 16 percent to be used in the determination of rates for FEI effective January 1, 2020.	144
59.	The Panel approves FBC’s proposed capitalized overhead rate of 15 percent to be used in the determination of rates for FBC effective January 1, 2020.	144
60.	Accordingly, the Panel denies FBC’s application for approval of an Innovation Fund and rate rider pursuant to sections 59 and 60 of the UCA.	155

	DIRECTIVE	PAGE
61.	Accordingly, the Panel finds that FEI’s proposed Clean Growth Innovation Fund and basic charge fixed rate rider of \$0.40/month are just, reasonable, and not unduly discriminatory and warrant BCUC approval pursuant to sections 59 and 60 of the UCA. The Panel also approves the establishment of an Innovation Fund deferral account for FEI, to capture both the innovation fund costs and the offsetting rider recoveries from customers. This deferral account will be non-rate base account, attracting a WACC rate of return and will continue through the term of the Proposed MRP. The Panel directs any unused balance in the deferral account to be returned to customers at the end of the Proposed MRP term through a disposal mechanism subject to approval by the BCUC.	156
62.	The Panel further directs FEI to include progress reports on the operation of FEI’s Innovation Fund and projects funded thereby.	157
63.	For the reasons articulated above, the Panel finds that the BCUC has the jurisdiction and the discretion to approve Targeted Incentives pursuant to section 60(1)(b.1) of the UCA.	162
64.	Given the uncertainty outlined above, the Panel denies FortisBC’s request for approval of the Renewable Gas Targeted Incentive. However, FEI may file a new proposal for a Renewable Gas Targeted Incentive as part of the Annual Review process which reflects any policy or legislative developments and balances risk and reward for BCUC review and approval. Furthermore, for the reasons articulated below, the Panel denies the request from FortisBC for approval of the remaining five proposed Targeted Incentives.	163- 164

	DIRECTIVE	PAGE
65.	<p>Therefore, with consideration given to FortisBC’s submissions on content, the Panel has determined that the following topics will provide a framework for the MRP Annual Reviews:</p> <ol style="list-style-type: none"> 1. Review of the current year projections and the upcoming year’s forecast. These include the following items: <ul style="list-style-type: none"> • Customer growth, volumes and revenues; • Year-end and average customers, and other cost driver information including inflation; • Expenses, determined by the indexing formula plus items forecast annually; • Capital expenditures (as provided for by the capital forecast with FEI’s Growth capital determined by the indexing formula), plus other items forecast annually; • Plant balances, deferral account balances and other rate base information and depreciation and amortization to be included in rates; and • Projected earnings sharing for the current year and true-up to actual earnings sharing for the prior year; 2. Identification of any efficiency initiatives that the Utilities have undertaken, or intend to undertake, that require a payback period extending beyond the PBR plan period with recommendations to the BCUC with respect to the treatment of such initiatives; 3. Review of any exogenous events that the Company or stakeholders have identified that should be put forward to the BCUC for review; 4. Review of the Utilities’ performance with respect to SQI’s. Bring forward recommendations to the BCUC where there have been a “sustained serious degradation” of service; 5. Assess and make recommendations with respect to any SQIs that should be reviewed in future Annual Reviews; 6. Reporting on the Innovation Fund status; and 7. Assess and make recommendations to BCUC on potential issues or topics for future Annual Reviews. <p>In addition to these specific topics, the list may be expanded to include any other topic where the BCUC considers there to be a need for review.</p>	167

DATED at the City of Vancouver, in the Province of British Columbia, this 22nd day of June 2020.

Original signed by:

D. A. Cote
Panel Chair / Commissioner

Original signed by:

A. K. Fung, QC,
Commissioner

Original signed by:

K. A. Keilty
Commissioner

Original signed by:

E. B. Lockhart
Commissioner



ORDER NUMBER
G-165-20

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

FortisBC Energy Inc. and FortisBC Inc.
Application for Approval of a Multi-Year Rate Plan for the Years 2020 through 2024

BEFORE:

D. A. Cote, Panel Chair
A. K. Fung, QC, Commissioner
K. A. Keilty, Commissioner
E. B. Lockhart, Commissioner

on June 22, 2020

ORDER

WHEREAS:

- A. On March 11, 2019, FortisBC Energy Inc. (FEI) and FortisBC Inc. (FBC) (collectively, FortisBC) applied to the British Columbia Utilities Commission (BCUC) for approval of a proposed Multi-Year Rate Plan for the years 2020 through 2024, pursuant to sections 59 to 61 of the *Utilities Commission Act* (UCA), seeking approval of a rate-setting framework for FortisBC for the upcoming five years, including, among other things, incentive mechanisms, an innovation fund, a forecast of capital expenditures, service quality indicators, deferral accounts and updated depreciation rates, capitalization rates and other supporting studies (Application);
- B. By Orders G-64-19, G-156-19, G-241-19 and G-272-19, the BCUC established a public hearing process and regulatory timetable for the review of the MRP Application;
- C. On October 29, 2019, FEI applied to the BCUC, pursuant to sections 59 to 61 and 89 of the UCA, for approval of a delivery rate increase of 2.0 percent, on an interim and refundable basis (with interest at the average prime rate of FEI's principal bank applied to any refundable amounts, effective January 1, 2020 (Interim Rates Application). FEI stated it intends to file its annual review materials to set permanent rates for 2020 (Annual Review for 2020 Rates Application) after the BCUC renders its final decision on the MRP Application;
- D. On November 28, 2019, the BCUC issued Order G-302-19, approving FEI's Interim Rates Application on an interim and refundable basis; and
- E. The BCUC has completed its review of the Application, the evidence and submissions by all parties in this proceeding and makes the following determinations.

NOW THEREFORE pursuant to sections 59 to 61 of the *Utilities Commission Act*, and for the reasons provided in the decision issued concurrently with this order, the BCUC orders as follows for FEI:

1. The BCUC approves the rate setting mechanisms set out in Section C1 and in Table C1-1 of the Application for setting delivery rates for the years 2020 through 2024, including:
 - a. A five-year term from 2020 to 2024 as described in Section C1.2 of the Application;
 - b. Use of an index-based approach to Base O&M and Growth capital, incorporating:
 - i. An updated 2019 Base O&M per customer amount to be filed as part of the Compliance filing, subject to the adjustments as determined in Section 4.1 of the Decision;
 - ii. An updated 2019 Growth Capital per customer amount to be filed as part of the Compliance filing, subject to the adjustments as determined in Section 4.3 of the Decision;
 - iii. An inflation factor as determined in Section 3.2.5 of the Decision;
 - iv. An X-Factor of 0.5 percent as determined in Section 3.2.6 of the Decision;
 - v. A forecast of customer growth as determined in Section 3.2.3 of the Decision;
 - vi. A true up of the spending envelope in the following year(s) as set out in Section C1.4 of the Application;
 - c. The level of forecast Sustainment and Other capital to be incorporated in rates for the three-year period 2020-2022, as set out in Section C3.3.2, Table C3-7 of the Application. FEI is directed to submit an updated forecast of the 2023 to 2024 expenditures in the Annual Review for 2023 rates as determined in Section 4.4 of the Decision;
 - d. Flow through treatment for the items determined in Section 3.2.8 of the Decision;
 - e. The 13 Service Quality Indicators as described in Section C7.2, Table C7-1 of the Application, subject to the adjustments determined in Section 3.3 of the Decision;
 - f. Half of ROE variances to be shared with customers as determined in Section 3.2.9 of the Decision;
 - g. A materiality threshold of \$500,000 is set for the Z-factor, as determined in Section 3.2.7 of the Decision;
 - h. An off-ramp of +/- 150 basis points (post sharing) in any one year as determined in Section 3.4 of the Decision; and
 - i. Annual Review process as described in Section 7 of the Decision.
2. The creation and modification of deferral accounts as determined throughout the Decision.
3. The changes to the following supporting studies to be used in the determination of rates for FEI effective January 1, 2020:
 - a. Modification to the approved Lead Lag days as set out in Table D3-1, Section D3.2 of the Application, as amended in the Errata filed in Exhibit B-1-3;
 - b. Depreciation rates in the amounts set out in Table D2-3 in Section D2 of the Application;
 - c. Net salvage rates in the amounts set out in Table D2-4 in Section D2 of the Application; and
 - d. The capitalized overhead rate of 16 percent as set out in Section D6.4 of the Application.

4. The allocation methodology of costs for corporate services between FortisBC Holdings Inc. (FHI) and FEI and for Shared Services as between FEI and FBC, as reflected in the Corporate Services Agreement and Shared Service Agreements as described in Sections D4 and D5 of the Application.
5. FEI is directed to assess the Clean Growth Innovation Fund basic charge rate rider of \$0.40 as described in Section C6.6, Table C6-3 of the Application and approved in Section 5.0 of the Decision.
6. The recording of the interconnection costs for FEI's seven interconnection facilities identified in the 2010 Biomethane Application in the Biomethane Variance Account (BVA) as described in Section C4.4.2.3 and Appendix B9 of the Application.
7. The Certificate of Public Convenience and Necessity (CPCN) criteria during the five-year term 2020 to 2024 will continue to be based solely on the dollar threshold set by Order G-120-15 and will be maintained at \$15 million. However, the BCUC may require a CPCN review for projects below this threshold if it finds that pursuant to section 45 of the *Utilities Commission Act* it is in the public interest to do so.
8. FEI is directed to file with the BCUC, within 30 days of the issuance of this order, a compliance filing for the Panel's approval incorporating the impacts of all adjustments as outlined in the Decision.
9. FEI is directed to file its annual review materials to set permanent rates for 2020 (Annual Review for 2020 Rates Application). As directed by Order G-302-19, FEI's current rates will remain interim and refundable/recoverable, with interest calculated on any refundable amounts at the average prime rate of FEI's principal bank for its most recent year, until the BCUC renders its decision on the Annual Review for 2020 Rates Application.
10. FEI must comply with all other directives contained in the Decision issued concurrently with this order.

DATED at the City of Vancouver, in the Province of British Columbia, this 22nd day of June 2020.

BY ORDER

Original signed by:

D. A. Cote
Commissioner



**ORDER NUMBER
G-166-20**

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

FortisBC Energy Inc. and FortisBC Inc.
Application for Approval of a Multi-Year Rate Plan for the Years 2020 through 2024

BEFORE:

D. A. Cote, Panel Chair
A. K. Fung, QC, Commissioner
K. A. Keilty, Commissioner
E. B. Lockhart, Commissioner

on June 22, 2020

ORDER

WHEREAS:

- A. On March 11, 2019, FortisBC Energy Inc. (FEI) and FortisBC Inc. (FBC) (collectively, FortisBC) applied to the British Columbia Utilities Commission (BCUC) for approval of a proposed Multi-Year Rate Plan for the years 2020 through 2024, pursuant to sections 59 to 61 of the *Utilities Commission Act* (UCA), seeking approval of a rate-setting framework for FortisBC for the upcoming five years, including, among other things, incentive mechanisms, an innovation fund, a forecast of capital expenditures, service quality, deferral accounts and updated depreciation rates, capitalization rates and other supporting studies (Application);
- B. By Orders G-64-19, G-156-19, G-241-19 and G-272-19, the BCUC established a public hearing process and regulatory timetable for the review of the MRP Application;
- C. On October 29, 2019, FBC applied to the BCUC, pursuant to sections 59 to 61 and 89 of the UCA, for approval of a delivery rate increase of 1.0 percent, on an interim and refundable basis (with interest at the average prime rate of FBC's principal bank applied to any refundable amounts, effective January 1, 2020 (Interim Rates Application)). FBC stated it intends to file its annual review materials to set permanent rates for 2020 (Annual Review for 2020 Rates Application) after the BCUC renders its final decision on the MRP Application;
- D. On November 28, 2019, the BCUC issued Order G-303-19, approving FEI's Interim Rates Application on an interim and refundable basis; and
- E. The BCUC has completed its review of the Application, the evidence and submissions by all parties in this proceeding and makes the following determinations.

NOW THEREFORE pursuant to sections 59 to 61 of the *Utilities Commission Act*, and for the reasons provided in the decision issued concurrently with this order, the BCUC orders as follows for FBC:

1. The BCUC approves the rate setting mechanisms set out in Section C1 and in Table C1-1 of the Application for setting delivery rates for the years 2020 through 2024, including:
 - a. A five-year term from 2020 to 2024 as described in Section C1.2 of the Application;
 - b. Use of an indexed-based approach to O&M, incorporating:
 - i. An updated 2019 Base O&M per customer amount to be filed as part of the Compliance filing, subject to the adjustments as determined in Section 4.1 of the Decision;
 - ii. An inflation factor as determined in Section 3.2.5 of the Decision;
 - iii. An X-Factor of 0.5 percent as determined in Section 3.2.6 of the Decision;
 - iv. A forecast of customer growth as determined in Section 3.2.3 of the Decision; and
 - v. A true up of the spending envelope in the following year(s) as set out in Section C1.4 of the Application;
 - c. The level of forecast capital to be incorporated in rates for the three-year period 2020-2022, as set out in Section C3.4.1, Table C3-7 of the Application, subject to being updated in FBC's compliance filing for the removal of the duplication of costs described in Exhibit B-12, BCUC IR 2.202.4. FBC is also ordered to submit an updated forecast of the 2023 to 2024 expenditures in the Annual Review for 2023 rates as determined in Section 4.4 of the Decision.
 - d. Flow through treatment for the items determined in Section 3.2.8 of the Decision;
 - e. The 12 Service Quality Indicators as described in Section C7.3, Table C7-5 of the Application, subject to the adjustments determined in Section 3.3 of the Decision, and subject to FBC filing for approval of the threshold and benchmark for the SAIDI and SAIFI SQIs in FBC's compliance filing;
 - f. Half of ROE variances to be shared with customers as set out in Section 3.2.9 of the Decision;
 - g. A materiality threshold of \$150,000 is set for the Z-factor, as determined in Section 3.2.7 of the Decision;
 - h. An off-ramp of +/- 150 basis points (post sharing) in any one year as determined in Section 3.4 of the Decision; and
 - i. Annual Review process as described in Section 7 of the Decision.
2. The creation and modification of deferral accounts as determined throughout the Decision.
3. The changes to the following supporting studies to be used in the determination of rates for FBC effective January 1, 2020:
 - a. Modification to the approved Lead Lag days as set out in Table D3-2, Section D3.3 of the Application;
 - b. Depreciation rates in the amounts set out in Table D2-10 in Section D2 of the Application;
 - c. Net salvage rates in the amounts set out in Table D2-12 in Section D2 of the Application; and
 - d. The capitalized overhead rate of 15 percent as set out in Section D6.5 of the Application.
4. The allocation methodology of costs for corporate services between FortisBC Holdings Inc. (FHI) and FBC and for Shared Services as between FEI and FBC, as reflected in the Corporate Services Agreement and Shared Service Agreements as described in Sections D4 and D5 of the Application.

5. The Certificate of Public Convenience and Necessity (CPCN) criteria during the five-year term 2020 to 2024 will continue to be based solely on the dollar threshold set by Order G-120-15, and will be maintained at \$20 million. However, the BCUC may require a CPCN review for projects below this threshold if it finds that pursuant to section 45 of the *Utilities Commission Act* it is in the public interest to do so.
6. FBC is directed to file with the BCUC, within 30 days of the issuance of this order, a compliance filing for the Panel's approval incorporating the impacts of all adjustments as outlined in the Decision. In addition, the compliance filing shall include updated benchmarks and thresholds for the SAIDI and SAIFI SQIs based on 2017, 2018 and 2019 Actual data as proposed by FBC.
7. FBC is directed to file annual review materials to set permanent rates for 2020 (Annual Review for 2020 Rates Application). As directed by Order G-303-19, FBC's current rates will remain interim and refundable/recoverable, with interest calculated on any refundable amounts at the average prime rate of FBC's principal bank for its most recent year, until the BCUC renders its decision on the Annual Review for 2020 Rates Application.
8. FBC must comply with all other directives contained in the Decision issued concurrently with this order.

DATED at the City of Vancouver, in the Province of British Columbia, this 22nd day of June 2020.

BY ORDER

Original signed by:

D. A. Cote
Commissioner

GLOSSARY AND ACRONYMS

ACRONYM / GLOSSARY	DESCRIPTION
2019B	2019 Base
A&G	Administration and General
AC	Average number of Customers
ACGS	Aitken Creek Gas Storage ULC
AIFR	All Injury Frequency Rate
ALG	Average Life Group
AMI	Advanced Metering Infrastructure
Application or Proposed MRPs	Multi-Year Rate Plans for FortisBC Energy Inc. and FortisBC Inc. for the years 2020 through 2024
ASA	Average Speed of Answer
AWE:BC	Average Weekly Earnings for British Columbia
AUC	Alberta Utilities Commission
BC or B.C.	British Columbia
BC Hydro	British Columbia Hydro and Power Authority
BCMEU	British Columbia Municipal Electrical Utilities
BCOAPO	British Columbia Old Age Pensioners' Organization et al.
BCSEA	British Columbia Sustainable Energy Association
BCUC	British Columbia Utilities Commission
Bell	The evidence of Russ Bell & Associates Inc. prepared by Russ Bell
BERC	Biomethane Energy Recovery Charge
BPS	Basis points
BVA	Biomethane Variance Account
CEC	Commercial Energy Consumers Association of British Columbia
CEPA	Canadian Energy Pipelines Association
COS	Cost of Service

GLOSSARY AND ACRONYMS

ACRONYM / GLOSSARY	DESCRIPTION
Cost Driver Approach	Approach to allocate costs between FortisBC Energy Inc. and FortisBC Inc. based on cost drivers
CPCN	Certificate of Public Convenience and Necessity
CPI:BC	Consumer Price Index for British Columbia
Current PBR Plans	Collectively FortisBC Energy Inc. Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 and FortisBC Inc. Multi-Year Performance Based Ratemaking Plan for 2014 through 2019
DCFC	Direct Current Fast Charging
DSM	Demand Side Management
ECM	Efficiency Carry-Over Mechanism
EEI	Edison Electric Institute
EHT	Employer Health Tax
ELG	Equal Life Group
ESM	Earnings Sharing Mechanism
EV	Electric Vehicles
FBC	FortisBC Inc.
FBC Current PBR Plan Decision	FBC Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Decision and Order G-139-14 dated September 15, 2014
FCR	First Contact Resolution
FEI	FortisBC Energy Inc.
FEI Current PBR Plan Decision	FEI Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Decision and Order G-138-14 dated September 15, 2014
FEVI	FortisBC Energy (Vancouver Island) Inc.
FEW	FortisBC Energy (Whistler) Inc.
FHI	FortisBC Holdings Inc.
FI	Fortis Inc.
FortisBC or the Utilities	Collectively FortisBC Energy Inc. and FortisBC Inc.

GLOSSARY AND ACRONYMS

ACRONYM / GLOSSARY	DESCRIPTION
GC	Growth Capital
GCA	Gross Customer Additions
GGRR	Greenhouse Gas Reductions (Clean Energy) Regulation
GHG	Greenhouse Gas
GJ	Gigajoule
ICG	Industrial Customers Group
IEEE	Institute of Electrical and Electronics Engineer
I-Factor	Inflation factor
IFRS	International Financial Reporting Standards
Innovation Fund	Clean Growth Innovation Fund
IR	Information Request
IVR	Interactive Voice Response
KM	Kilometer
LNG	Liquefied Natural Gas
LMIPSU Project	FEI Lower Mainland Intermediate Pressure System Upgrade Projects
Major Projects	Capital expenditures that do not form part of Regular capital spending
MoveUp	Movement of United Professionals
MRP	Multi-Year Rate Plan
MRP Target	The overall performance target for a targeted incentive over the Proposed MRP term
MRS	Mandatory Reliability Standards
MSP	Medical Services Plan
NGIF	The Canadian Gas Association's Natural Gas Innovation Fund
NGT	Natural Gas for Transportation
O&M	Operations and Maintenance

GLOSSARY AND ACRONYMS

ACRONYM / GLOSSARY	DESCRIPTION
OEB	Ontario Energy Board
OMS	Outage Management System
OPEB	Other Post-Employment Benefits
Pandemic	The COVID-19 pandemic
PBR	Performance Based Ratemaking
PIF	Productivity Improvement Factor
PJs	Petajoules
PPE	Power Purchase Expense
Proposed MRPs	Collectively the Multi-Year Rate Plans for FEI and FBC for the years 2020 through 2024
PSI	Power Supply Incentive
Regular capital	Capital expenditures in Growth, Sustainment and Other capital
RNG	Renewable Natural Gas
ROE	Return on Equity
RRA	Revenue Requirements Application
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SLA	Service Line Addition
SQIs	Service Quality Indicators
tCO ₂ e	Tonnes of carbon dioxide equivalent
TAR	Telephone Abandonment Rate
TFP	Total Factor Productivity
Timesheet Approach	Approach to allocated costs between the FEI and FBC based on timesheets
TRL	Technology Readiness Levels
TSF	Telephone Service Factor

GLOSSARY AND ACRONYMS

ACRONYM / GLOSSARY	DESCRIPTION
UCA	<i>Utilities Commission Act</i>
UCGC	Unit Cost Growth capital
UCOM	Unit Cost O&M
US GAAP	US Generally Accepted Accounting Principles
USofA	BC's Uniform System of Accounts
WACC	Weighted Average Cost of Capital
WAX CAPA	Waneta Expansion Limited Partnership Capacity Purchase Agreement

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

FortisBC Energy Inc. and FortisBC Inc. (collectively FortisBC)
Multi-Year Rate Plan Application for 2020 to 2024

EXHIBIT LIST

Exhibit No.	Description
<i>COMMISSION DOCUMENTS</i>	
A-1	Letter dated March 12, 2019 - Appointing the Panel for the review of FortisBC Energy Inc. and FortisBC Inc. Multi-Year Rate Plan Application for 2020 through 2024
A-2	Letter dated March 20, 2019 – BCUC issuing Order G-64-19 establishing the regulatory timetable
A-3	Letter dated April 18, 2019 – BCUC requesting material for Workshop
A-4	Letter dated May 16, 2019 – Amended BCUC Information Request No. 1 to FortisBC
A-5	Letter dated July 3, 2019 – Procedural Conference Information
A-6	Letter dated July 15, 2019 – BCUC Order G-156-19 with reasons and the regulatory timetable
A-7	Letter dated August 14, 2019 – Information Request No. 2 to FortisBC
A-8	CONFIDENTIAL - Letter dated August 14, 2019 – BCUC Confidential Information Request No. 1 to FortisBC
A-9	Letter dated September 25, 2019 – BCUC Confirming Regulatory Timetable with Intervener Evidence as set out in Order G-156-19
A-10	Letter dated October 8, 2019 – Order G-241-19 amending the regulatory timetable
A-11	Letter dated October 24, 2019 – Procedural Conference Information
A-12	Letter dated October 28, 2019 – BCUC Information Request No. 1 to BCOAPO
A-13	Letter dated November 6, 2019 – BCUC Order G-272-19 with reasons and the regulatory timetable
A-14	Letter dated November 20, 2019 – BCUC Information Request to FortisBC on FEI 2020 Interim Rates

- A-15 Letter dated November 28, 2019 – BCUC Order G-302-19 approving FEI’s Interim Rates Application
- A-16 Letter dated November 28, 2019 – BCUC Order G-303-19 approving FBC’s Interim Rates Application
- A-17 Letter dated February 6, 2020 – BCUC response to CEC’s extension request to file Final Argument
- A-18 Letter dated February 7, 2020 – BCUC response to Intervener’s extension request to file Final Argument

COMMISSION STAFF DOCUMENTS

- A2-1 Letter dated May 15, 2019 - BCUC staff filing Natural Gas Innovation Fund Launches \$1.5 million Cleantech Competition dated May 9, 2019
- A2-2 Letter dated August 14, 2019 - BCUC staff filing the Fortis BC Inc. 2019-2020 Annual Electric Contracting Plan - Executive Summary

APPLICANT DOCUMENTS

- B-1 **FORTISBC ENERGY INC. AND FORTISBC INC. (COLLECTIVELY FORTISBC)** – Letter dated March 11, 2019 Application of a Multi-Year Rate Plan for 2020 through 2024
- B-1-1 Letter dated March 11, 2019 - FortisBC Submitting Application Appendices
- B-1-2 Letter dated May 9, 2019 – FortisBC Submitting Errata to the Application
- B-1-3 Letter dated June 21, 2019 – FortisBC Submitting Errata to the Application and Appendices
- B-1-4 Letter dated September 16, 2019 – FortisBC Submitting Errata to the Application
- B-2 Letter dated April 26, 2019 – FortisBC Submitting Workshop Material
- B-3 Letter dated May 1, 2019 – FortisBC Submitting Workshop Presentation
- B-4 Letter dated June 17, 2019 – FortisBC Submitting Responses to BCMEU Information Request No. 1
- B-5 Letter dated June 17, 2019 – FortisBC Submitting Responses to BCOAPO Information Request No. 1
- B-5-1 **CONFIDENTIAL** – Letter dated June 18, 2019 - FortisBC Submitting Response to BCOAPO Information Request No. 1
- B-6 Letter dated June 17, 2019 – FortisBC Submitting Responses to BCSEA Information Request No. 1

- B-7 Letter dated June 17, 2019 – FortisBC Submitting Responses to CEC Information Request No. 1
- B-8 Letter dated June 17, 2019 – FortisBC Submitting Responses to ICG Information Request No. 1
- B-9 Letter dated June 17, 2019 – FortisBC Submitting Responses to MoveUP Information Request No. 1
- B-10 Letter dated June 17, 2019 - FortisBC Submitting Responses to BCUC Information Request No. 1
- B-10-1 **CONFIDENTIAL** – Letter dated June 17, 2019 - FortisBC Submitting Response to BCUC Information Request No. 1 – Attachment 42.4
- B-10-2 Letter dated September 16, 2019 - FortisBC Submitting Errata to Responses to BCUC Information Request No. 1
- B-11 Letter dated June 17, 2019 - FortisBC Submitting Comments regarding Procedural Matters
- B-12 Letter dated September 16, 2019 – FortisBC Submitting Responses to BCUC Information Request No. 2
- B-12-1 **CONFIDENTIAL** Letter dated September 16, 2019 – FortisBC Submitting Responses to BCUC Information Request No. 2 Question 163.11
- B-12-2 **CONFIDENTIAL** Letter dated September 16, 2019 – FortisBC Submitting Responses to BCUC Confidential Information Request No. 2
- B-13 Letter dated September 16, 2019 – FortisBC Submitting Responses to BCMEU Information Request No. 2
- B-14 Letter dated September 16, 2019 – FortisBC Submitting Responses to BCOAPO Information Request No. 2
- B-14-1 **CONFIDENTIAL** - Letter dated September 16, 2019 – FortisBC Submitting Responses to BCOAPO Information Request No. 2
- B-15 Letter dated September 16, 2019 – FortisBC Submitting Responses to BCSEA Information Request No. 2
- B-16 Letter dated September 16, 2019 – FortisBC Submitting Responses to CEC Information Request No. 2
- B-17 Letter dated September 16, 2019 – FortisBC Submitting Responses to ICG Information Request No. 2
- B-18 Letter dated September 30, 2019 – FortisBC Submitting Request to Amend the Regulatory Timetable

- B-19 Letter dated October 28, 2019 – FortisBC Submitting Information Request No. 1 to BCOAPO on Evidence
- B-20 Letter dated October 29, 2019 – FortisBC providing written submission for Procedural Conference
- B-21 Letter dated October 29, 2019 - FortisBC Submitting for approval of FEI 2020 rates on an interim basis
- B-22 Letter dated October 29, 2019 - FortisBC Submitting for approval of FBC 2020 rates on an interim basis
- B-23 Letter dated November 26, 2019 – FortisBC Submitting Rebuttal Evidence
- B-24 Letter dated December 11, 2019 – FortisBC Submitting Response to BCUC Information Request No. 3 on Interim Rates
- B-25 Letter dated December 11, 2019 – FortisBC Submitting Response to BCOAPO Information Request No. 3 on Interim Rates
- B-26 Letter dated December 11, 2019 – FortisBC Submitting Response to BCSEA Information Request No. 3 on Interim Rates
- B-27 Letter dated December 11, 2019 – FortisBC Submitting Response to CEC Information Request No. 3 on Interim Rates
- B-28 Letter dated December 18, 2019 – FortisBC Submitting Response to BCOAPO Information Request No. 4 on Rebuttal Evidence
- B-29 Letter dated December 18, 2019 – FortisBC Submitting Response to BCSEA Information Request No. 4 on Rebuttal Evidence
- B-30 Letter dated December 18, 2019 – FortisBC Submitting Response to CEC Information Request No. 4 on Rebuttal Evidence

INTERVENER DOCUMENTS

- C1-1 **BRITISH COLUMBIA HYDRO AND POWER AUTHORITY (BC HYDRO)** - Letter dated March 27, 2019 Request to Intervene by Fred James
- C2-1 **INDUSTRIAL CUSTOMERS GROUP (ICG)** - Letter dated April 2, 2019 – Request for Intervener Status by Robert Hobbs
- C2-2 Letter dated May 23, 2019 – ICG Submitting Information Request No. 1 to FortisBC
- C2-3 Letter dated July 2, 2019 – ICG Submitting Confidential Undertaking
- C2-4 Letter dated July 3, 2019 – ICG Submitting Confidential Undertaking by Elroy Switlishoff

- C2-5 Letter dated August 21, 2019 – ICG Submitting Information Request No. 2 to FortisBC
- C2-6 Letter dated February 6, 2020 – ICG Submitting extension request for all interveners to file Final Argument
- C3-1 **BC SUSTAINABLE ENERGY ASSOCIATION AND SIERRA CLUB BC (BCSEA)** – Letter dated April 7, 2019 – Request to Intervene by Thomas Hackney and WJ Andrews
- C3-2 Letter dated May 23, 2019 – BCSEA Submitting Information Request No. 1 to FortisBC
- C3-3 Letter dated August 21, 2019 – BCSEA Submitting Information Request No. 2 to FortisBC
- C3-4 Letter dated October 28, 2019 – BCSEA Submitting Information Request No. 1 to BCOAPO
- C3-5 Letter dated November 19, 2019 – BCSEA Submitting Information Request No. 3 to FortisBC
- C3-6 Letter dated December 6, 2019 – BCSEA Submitting Information Request on Rebuttal Evidence
- C3-7 Letter dated February 7, 2020 – BCSEA Submitting support of extension request for all interveners to file Final Argument
- C4-1 **NELSON HYDRO REPRESENTING THE BCMEU (BCMEU)** – Letter dated April 10, 2019 – Request to Intervene by Marg Craig
- C4-2 Letter dated May 23, 2019 – BCMEU Submitting Information Request No. 1 to FortisBC
- C4-3 Letter dated August 21, 2019 – BCMEU Submitting Information Request No. 2 to FortisBC
- C5-1 **MOVEMENT OF UNITED PROFESSIONALS (MOVEUP)** – Letter dated April 17, 2019 – Request to Intervene by Jim Quail
- C5-2 Letter dated May 23, 2019 – MoveUP Submitting Information Request No. 1 to FortisBC
- C6-1 **COMMERCIAL ENERGY CONSUMERS ASSOCIATION OF BRITISH COLUMBIA (CEC)** - Letter dated April 25, 2019 – Request to Intervene by Christopher Weafer
- C6-2 Letter dated May 23, 2019 – CEC Submitting Information Request No. 1 to FortisBC
- C6-3 Letter dated August 21, 2019 – CEC Submitting Information Request No. 2 to FortisBC
- C6-4 Letter dated October 28, 2019 – CEC Submitting Information Request No. 1 on Intervener Evidence
- C6-5 Letter dated November 20, 2019 – CEC Submitting Information Requests on FortisBC's Interim Rates
- C6-6 Letter dated December 6, 2019 – CEC Submitting Information Request on Rebuttal Evidence

- C6-7 Letter dated February 5, 2020 – CEC Submitting extension request to file Final Argument
- C7-1 **BRITISH COLUMBIA OLD AGE PENSIONERS’ ORGANIZATION ET AL. (BCOAPO)** - Letter dated April 26, 2019 Request to Intervene by Leigha Worth and Irina Mis
- C7-2 Letter dated May 23, 2019 – BCOAPO submitting Information Request No. 1 to FortisBC
- C7-3 Letter dated August 26, 2019 – BCOAPO submitting Information Request No. 2 to FortisBC
- C7-4 Letter dated September 23, 2019 – BCOAPO submitting Notice of Intention to File Evidence
- C7-5 Letter dated October 7, 2019 – BCOAPO Submitting Evidence
- C7-6 Letter dated November 19, 2019 – BCOAPO Submitting Response to BCUC Information Request No. 1 on BCOAPO’s Evidence
- C7-7 Letter dated November 19, 2019 – BCOAPO Submitting Response to CEC Information Request No. 1 on BCOAPO’s Evidence
- C7-8 Letter dated November 19, 2019 – BCOAPO Submitting Response to BCSEA Information Request No. 1 on BCOAPO’s Evidence
- C7-9 Letter dated November 19, 2019 – BCOAPO Submitting Response to FortisBC Information Request No. 1 on BCOAPO’s Evidence
- C7-10 Letter dated November 20, 2019 – BCOAPO Submitting Information Requests on FortisBC’s Interim Rates
- C7-11 Letter dated December 10, 2019 – BCOAPO Submitting Information Request No. 1 to FortisBC on Rebuttal Evidence
- C7-12 Letter dated February 6, 2020 – BCOAPO Submitting extension request to file Final Argument

INTERESTED PARTY DOCUMENTS

- D-1 **KASSEM, OMAR** - April 15, 2019 Request for Interested Party Status
- D-2 **PACIFIC NORTHERN GAS (PNG)** - April 23, 2019 Request for Interested Party Status by Verlon Otto
- D-3 **PENTICTON INDIAN BAND** – April 29, 2019 Request for Interested Party Status by Tabitha Eneas
- D-4 **NOVA GAS TRANSMISSION LTD. (NOVAGAS)** – April 30, 2019 Request for Interested Party Status by Sheena Paul
- D-5 **DIRECT ENERGY MARKETING LIMITED (DIRECT ENERGY)** – May 8, 2019 Request for Interested Party Status by Nicole Black

- D-6 **ACCESS GAS SERVICES INC. (ACCESS GAS)** - May 17, 2019 Request for Interested Party Status by James Bartlett
- D-7 **GREENWALD, RYAN** – June 4, 2019 Request for Interested Party Status
- D-8 **THOMAS, LYLE** – August 2, 2019 Request for Interested Party Status on behalf of the Town of Princeton
- D-9 **CROZIER, JESSIE** - August 9, 2019 Request for Interested Party Status on behalf of Luminus Management
- D-10 **GROSBARD, LEE** – October 9, 2019 Request for Interested Party Status
- D-11 **ENMAX CORPORATION (ENMAX)** – October 18, 2019 Request for Interested Party Status by Eugene Wu

LETTERS OF COMMENT

- E-1 Lowan, J. – Letter of Comment dated May 25, 2019
- E-2 Pembina Institute – Letter of Comment dated September 4, 2019
- E-3 University of Victoria (UVic) – Letter of Comment dated September 24, 2019 submitted by Andrew Rowe, Ph.D., P.Eng.
- E-4 Fort Capital Partners – Letter of Comment dated November 28, 2019
- E-5 Foresite Cleantech Accelerator Centre – Letter of Comment dated December 19, 2019