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November 9, 2016

**By Electronic Filing**

British Columbia Utilities Commission  
Sixth Floor, 900 Howe Street  
Vancouver, BC V6Z 2N3

**Attention: Laurel Ross**  
**Acting Commission Secretary and Director**

Dear Sirs/Mesdames:

**Re: FortisBC Inc.**

**Project No. 3698887**

**Multi-Year Performance Based Ratemaking Plan for 2014 through 2019  
approved by British Columbia Utilities Commission Order G-139-14 –  
Annual Review for 2017 Rates**

**Reply Argument**

In accordance with the Regulatory Timetable for this proceeding set out in Commission Order G-123-16, we enclose for filing the electronic version of the Reply Argument of FortisBC Inc.

Yours truly,

**FASKEN MARTINEAU DuMOULIN LLP**

*[original signed by Christopher R. Bystrom]*

Christopher R. Bystrom

CB  
Enclosure

**BRITISH COLUMBIA UTILITIES COMMISSION**  
**IN THE MATTER OF THE UTILITIES COMMISSION ACT,**  
**R.S.B.C. 1996, CHAPTER 473**

**and**

**FORTISBC INC. MULTI-YEAR PERFORMANCE BASED RATEMAKING**  
**PLAN APPROVED**  
**FOR 2014 THROUGH 2019**

**ANNUAL REVIEW for 2017 RATES**

**REPLY SUBMISSION OF**  
**FORTISBC INC.**

**November 9, 2016**

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## PART ONE: INTRODUCTION AND OVERVIEW

1. FortisBC Inc. (“FBC” or the “Company”) filed its Annual Review for 2017 Rates (the “Application”) on August 8, 2016 in compliance with British Columbia Utilities Commission (the “Commission”) Order G-139-14 (the “PBR Decision”), which approved a Performance Based Ratemaking Plan for FBC for the years 2014 to 2019 (the “PBR Plan”). On October 5, 2016, FBC filed an Evidentiary Update to the Application.<sup>1</sup>

2. FBC is projecting that the savings achieved under the PBR Plan in 2016 will result in \$0.334 million of earnings sharing that will be returned to customers in 2017, serving to reduce overall rates for FBC’s customers. FBC’s performance with respect to SQIs demonstrates that FBC achieved these savings while meeting service quality standards.<sup>2</sup>

3. As set out in the Application<sup>3</sup> and as updated in the Evidentiary Update<sup>4</sup>, FBC requests Commission approval for the following pursuant to sections 59 to 61 of the *Utilities Commission Act*:

- (a) Permanent rates for all customers effective January 1, 2017, resulting in a general increase of 2.76% percent<sup>5</sup> compared to 2016 rates, to be applied to all components of rates for all customer classes.
- (b) The creation of five non-rate base deferral accounts for the following regulatory proceedings to be financed at FBC’s short term interest rate, as described in Section 12.4.1 of the Application:
  - Self-Generation Policy Stage II Application;

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<sup>1</sup> Exhibit B-2-2.

<sup>2</sup> Exhibit B-2, p. 115, Lines 8-9.

<sup>3</sup> Exhibit B-2.

<sup>4</sup> Exhibit B-2-2.

<sup>5</sup> Exhibit B-2-2, Evidentiary Update to the Application, p. 3.

- Net Metering Program Tariff Update Application;
  - BCUC Residential Inclining Block Report;
  - 2017 Demand Side Management Expenditure Schedule; and
  - Transmission Tariff Review.
- (c) Amortization of the Celgar Interim Period Billing Adjustment deferral account in 2017 as described in Section 12.4.2 of the Application; and
- (d) Z-factor treatment for the 2017 incremental O&M and capital expenditures related to the Mandatory Reliability Standards (MRS) Assessment Report No. 8, as described in Section 12.2 of the Application.
- (e) FBC also requests, pursuant to section 44.2(3), acceptance of a capital expenditure schedule consisting of the capital expenditures for:
- The Ruckles Substation Rebuild project, as described in Appendix C of the Application; and
  - The Upper Bonnington Old Units Refurbishment project, as described in Appendix D of the Application.

4. The regulatory timetable approved for the proceeding included a round of information requests and a workshop.<sup>6</sup> On September 28, 2016, FBC responded to information request (IRs) from the Commission and interveners, including the British Columbia Pensioners' and Seniors' Organization et al. ("BCOAPO"), the British Columbia Municipal Electric Utilities ("BCMEU"), the B.C. Sustainable Energy Association and the Sierra Club of British Columbia ("BCSEA"), the Commercial Energy Consumers Association of British Columbia ("CEC"), the Industrial Consumers Group ("ICG"), the Irrigation Ratepayers Group ("IRG"), and the Movement of United Professionals ("MoveUp"). The workshop was held on October 12, 2016,

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<sup>6</sup> Exhibit A-2.

and FBC's presentation materials and the transcript of the workshop were placed on the record in the proceeding.<sup>7</sup> FBC responded to undertakings from the workshop on October 26, 2016.<sup>8</sup>

5. FBC submits that the evidence filed in this proceeding, including the updated Application, IR responses, the workshop presentation and transcript, and the responses to undertakings, demonstrate that the approvals sought are just and reasonable and should be approved as filed.

6. On November 2, 2016, BCOAPO, BCMEU, BCSEA, CEC, ICG, IRG and MoveUP filed final arguments in accordance with the regulatory timetable approved by the Commission.

7. In the remainder of this Reply Submission, FBC responds to the issues raised by interveners in their final arguments. While FBC has sought to respond to all issues raised, silence on FBC's part should not be interpreted as agreement.

## **PART TWO: PROCEDURAL FAIRNESS ISSUES**

8. FBC is concerned that MoveUP's argument intermingles argument and evidence in this proceeding with argument and evidence in the FortisBC Energy Inc. ("FEI") Annual Review for 2017 Rates proceeding. MoveUP's approach of treating two proceedings as one is improper, introduces confusion into both proceedings and is procedurally unfair.

9. The FBC and FEI Annual Review proceedings are two separate Commission proceedings, with two different applicants, two different sets of interveners (with some overlap), two different Commission panels (with one shared Commissioner) and two distinct evidentiary records. MoveUP, however, maintains no distinction between the two, extensively referencing evidence from FEI's proceeding in this proceeding.

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<sup>7</sup> Exhibit B-11. The Transcript is available on the Commission's website at <http://www.bcuc.com/ApplicationView.aspx?ApplicationId=508>.

<sup>8</sup> Exhibit B-13.

10. Moreover, in its argument filed in this proceeding, MoveUP has filed late in the evening, so that it could incorporate comments in reply to FEI's Reply Argument, which was filed on the same date in the FEI Annual Review proceeding. In particular, pages 7 (from the heading "The Moving Target") to page 13 (including the conclusion) of MoveUP's argument are devoted to evidence in the FEI Annual Review Proceeding relating to the 2016 projected cross charges to FBC. The particular relevance of this evidence relates to the direction from the Commission to FEI regarding cost allocation methods. MoveUP includes extensive comments in reply to FEI's Reply Argument.

11. While FBC would generally not object if an intervener files past the Commission's standard 4 pm deadline, FBC does object to MoveUP's tactic of filing late so that it can read and respond to FEI's Reply Argument in FBC's proceeding.

12. MoveUP's approach is procedurally unfair. MoveUP is in effect granting itself the opportunity to make sur-reply to FEI's Reply Argument, albeit in the wrong proceeding. The Commission's approved regulatory timetable does not provide for sur-reply, nor has the Commission suggested that the argument phases of the two proceeding can be used to addresses argument and evidence in either proceedings. MoveUP's approach is therefore out of order and prejudicial to FEI. FEI is not a party in FBC's proceeding. The prejudice to FEI is especially apparent given the presence of a common Commissioner on the panels for the FEI and FBC Annual Reviews.

13. MoveUP's approach also confuses the evidentiary record and issues in both proceedings. In particular, MoveUP has requested two different Commission Panels in two separate proceeding to rule on the same issue, namely, whether the direction given to FEI regarding cost allocation methods has been triggered. FBC submits that the Commission Panel in FEI's Annual Review proceeding is the appropriate panel to be determining any issue related to a direction to FEI. Having the Commission Panel in this proceeding seek to address the same issue is confusing and procedurally unfair for a number of reasons, but most obviously because FEI is not a party to the FBC proceeding. In short, the Commission Panel in this proceeding

should not be making determinations regarding the rights and obligations of a utility that is not a party to the proceeding, such as ruling on whether FEI has complied with Commission directives or issuing directives to FEI.

14. As such, FBC submits that the Commission should disregard portions of MoveUP's argument that reply to FEI's Reply Argument. In particular, FBC submits that the Commission should disregard pages 7 (from the heading "The Moving Target") to page 13 (including the conclusion) of MoveUP's argument which is related to the direction of the Commission to FEI. This issue is the subject of evidence and argument in FEI's Annual Review proceeding and therefore the subject of determination of the Commission panel in that proceeding. Alternatively, the Commission should simply defer this issue to the FEI Annual Review proceeding.

### **PART THREE: REPLY SUBMISSIONS**

15. The following sections respond to the intervener submissions in the order of topics outlined in the Application.

#### **A. Evaluation of PBR**

16. FBC provides its evaluation of PBR in section 1.4 of the Application. In summary, FBC is projecting to realize savings in O&M expenditures, although FBC's capital expenditures continue to be above the formula. FBC's efficiency and cost-savings initiatives include sharing gas and electric contact centre staff, the Training and Development initiative and others, as described in section 1.4.2 of the Application. Overall, the savings achieved in 2016 are projected to result in \$0.334 million of earnings sharing that will be returned to customers in 2017, serving to reduce overall rates for FBC's customers. FBC achieved these savings while maintaining service quality as demonstrated by FBC's SQIs results.<sup>9</sup>

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<sup>9</sup> Exhibit B-2, p. 115, Lines 8-9.



17. The only intervener to raise any issues in argument with respect to FBC's efficiency and cost saving measures under PBR was MoveUP. MoveUP's argument is focussed solely on FBC's use of FEI Customer Service Representatives to improve customer service at lower cost to customers. FBC responds to MoveUP's argument below.

**(a) Cross-Charges for FEI Customer Service Representatives Providing Service to FortisBC Inc.**

18. MoveUP's argument focusses on FBC's achievement of savings and improved customer service by using FEI's Customer Service Representatives to answer electric calls during peak call times. As explained in the Application, FBC has "continued to leverage gas and electric contact centre staff to achieve three goals: to maintain or improve service levels to customers, to provide learning and development opportunities for staff, and to reduce operating costs."<sup>10</sup> With respect to using customer service representatives from FEI's Prince George contact centre to answer electric calls, FBC explained as follows:<sup>11</sup>

As of June 30, to date in 2016, staff in the Prince George contact centre answered approximately 3,200 electric calls, reflecting about 3 percent of the total electric calls received. Although this reflects a relatively small percentage of the total electric calls, use of the Prince George staff reduced the need for staffing at peak times at FBC's Trail contact centre and at the same time ensured that service levels were met. The Prince George staff can answer these calls when there are lower volumes in the gas customer service queue. As a result of this change, Prince George staff had an opportunity to learn more about the electric operations and to have more diverse work. Six fewer Customer Service Representatives (CSRs) are required as compared to having all calls answered in Trail, while maintaining service levels to customers.

19. At the workshop, Ms. Mehrer elaborated on the benefits of this shared service activity.<sup>12</sup>

So electric calls are normally handled by agents located in our Trail office, which is a very small contact centre, with approximately 20 to 30 agents available at

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<sup>10</sup> Exhibit B-2, p. 4.

<sup>11</sup> Exhibit B-2, pp. 4-5.

<sup>12</sup> Transcript Vol. 1, pp. 110-112

any one time. Due to its relatively small size, it's difficult to react to unexpected volumes.

In 2015 we began to leverage FEI contact centre agents located in Prince George to help with electric call volumes. During this time, the agents answering -- during the time agents are answering electric calls, they're also doing work for the gas utility in the form of off-contact work. This is work that can be done without having to speak to a customer. An example of this would be returned mail, or investigating vacant premises. Using FEI contact centre agents to answer electric calls has many benefits, including variable work volumes can be better addressed, especially if they occur at different times for FortisBC and FEI.

FortisBC can leverage the support of a larger contact centre during the peak call volume times. And staff have the opportunity to learn new things and have more variety in their work. And finally, customers receive a higher level of service and benefit from lower costs in both utilities.

20. In summary, FBC and FEI are sharing services to generate efficiencies that improve service quality and provide service at lower costs than would otherwise be required for the utilities acting separately. This activity is consistent with the direction of the two companies since coming under common ownership, and is consistent with FBC's ongoing focus on achieving efficiencies for the benefit of its customers. FBC believes that the Commission and intervener groups that represent FBC's customers should be supportive of such shared service activities. FBC notes that BCOAPO, CEC, BCSEA, BCMEU, IRG and ICG do not express any concerns with FBC's shared services with FEI in their arguments.

21. MoveUP makes it clear in its argument that it is not opposed to FBC's shared services activities. For example, MoveUP states: "To be clear, the Union does not oppose FBC engaging in the sharing of services and/or personnel with FEI to generate efficiencies that improve service while reducing costs."<sup>13</sup> MoveUP's argument nonetheless questions whether the shared service activities are in the public interest, and characterizes the sharing of services between FBC and FEI as a novel and concerning development, that is being conducted without Commission oversight, unfairly allocates costs, and that potentially compromises the adequacy,

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<sup>13</sup> MoveUP Argument, p. 2.

reliability and safety, and requires close scrutiny by the Commission. FEI submits that MoveUP's submissions are misleading and not based in the evidence.

22. Contrary to MoveUP's argument, the record shows that FBC's sharing of services with FEI is a reasonable and efficient initiative that improves service to customers and reduces costs, and is in the public interest:

- **The sharing of services between regulated entities such as FEI and FBC is consistent with past practice:** The sharing of services amongst regulated entities has occurred frequently in the past, as amongst FEI and the Vancouver Island and Whistler gas companies prior to amalgamation.<sup>14</sup> The sharing of services between FBC and FEI has been reviewed by the Commission since the companies came under common ownership: the Shared Services Agreement between FEI and FBC was discussed by FEI and by FBC in their respective 2012-2013 Revenue Requirement Applications, and in FEI's and FBC's PBR applications.<sup>15</sup>
- **The Sharing of Services at the Contact Centres Reduces Costs:** FBC is pursuing reasonable cost efficiencies in its Contact Centre that reduces costs to customers. As stated by Ms. Mehrer, "Six fewer Customer Service Representatives (CSRs) are required as compared to having all calls answered in Trail, while maintaining service levels to customers."<sup>16</sup>
- **FEI's Customer Service Representatives are Trained and Supported Appropriately:** FEI provides its customer service staff the same training that FBC has been using for ten years to onboard new employees in order to prepare them to handle electric customer

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<sup>14</sup> See, e.g., the Commission's Decision in the Matter of FortisBC Energy Utilities 2012-13 Revenue Requirements and Rates, dated April 12, 2012, pp. 69-70. Online: [http://www.bcuc.com/Documents/Proceedings/2012/DOC\\_30355\\_04-12-2012-FEU-2012-13RR-Decision-WEB.pdf](http://www.bcuc.com/Documents/Proceedings/2012/DOC_30355_04-12-2012-FEU-2012-13RR-Decision-WEB.pdf)

<sup>15</sup> Exhibit B-9, MoveUP IR 1.1.14.

<sup>16</sup> Transcript Vol. 1, pp. 110-112.

service calls.<sup>17</sup> FEI employees are provided with all the same resources and job supports that are available to FBC employees performing the same or comparable work.<sup>18</sup>

- **The Sharing of Services at the Contact Centre Improves Quality of Service:** FBC is able to use the larger number of Customer Service Representatives in the Prince George Contact Centre to respond to calls during peak times.<sup>19</sup> As detailed in Appendix B2 of the Application, FBC's customers are receiving a high quality of service from Customer Service Representatives in both the Trail and Prince George Contact Centres. Both FBC and FEI track the service quality of individual Customer Service Representatives. All customer calls are recorded for training purposes and reviewed by leaders in the contact centres to provide coaching on a daily basis. Quality of service is also monitored by customer surveys. Managers work with employees to reinforce positive feedback and support employees in improving any negative feedback. The comments and high satisfaction from customers show that the Prince George Customer Service Representatives are providing a high level of service to FBC customers.<sup>20</sup>
- **The Cost Allocation is Just and Reasonable:** The costs for the shared service activities are reasonably allocated pursuant to the shared services agreement between the companies, using a cost per interaction approach that the Commission determined to be reasonable and fair.<sup>21</sup> Commission Order G-110-12, related to FBC's 2012-2013 Revenue Requirements Application, stated: "Cross charges between FortisBC and its affiliates regulated by the Commission are approved to be based on fully loaded costs, not including overhead."<sup>22</sup> Pursuant to the Commission's direction to FEI from FEI's

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<sup>17</sup> Exhibit B-9, MoveUP IR 1.1.10.

<sup>18</sup> Exhibit B-9, MoveUP IR 1.1.10.2.

<sup>19</sup> Exhibit B-2, pp. 4-5.

<sup>20</sup> Exhibit B-2 Appendix B2; Transcript Vol. 1, pp. 112-113.

<sup>21</sup> Page 24 of Appendix A to Commission Order G-193-15.

<sup>22</sup> Exhibit B-9, MoveUP IR 1.1.14.

Annual Review for 2016 Rates, if the amount exceeds \$100,000, FEI is to review alternative approaches.<sup>23</sup>

23. FBC responds to MoveUP's particular comments below.

24. MoveUP's characterization of customer service representatives as "specialists"<sup>24</sup> appears designed to heighten concerns regarding the sharing of these employees. Contact centre staff respond to a variety of calls (move in and move outs, billing inquires and payment arrangements; and, with further training, trouble calls and construction related inquiries).<sup>25</sup> Given the variety of calls that they have to handle, customer service representatives must have a broad scope of general knowledge to provide the customer with easy access to information on a number of topics, rather than having to be passed from person to person within the company. As such, they may be more accurately described as generalists.

25. In the context of the services that Customer Service Representatives provide to customers, the services of the two utilities cannot be described as "dramatically different" as MoveUP asserts.<sup>26</sup> Where there are areas of difference, FEI employees are trained using the same training as FBC employees receives so that they are equally able to handle electric calls as FBC employees. As discussed in the response to MoveUP IR 1.1.10, this includes a first phase of training on how to respond to move in and move outs, billing inquiries and payment arrangements. The FEI customer service representatives also receive a second phase of training, after which they may respond to trouble calls and construction related inquiries. Notably, FEI Customer Service Representatives also have the benefit of existing training and experience with skills that are required for both gas and electric contact centre staff, such as customer service soft skills.<sup>27</sup>

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<sup>23</sup> Page 24 of Appendix A to Commission Order G-193-15.

<sup>24</sup> MoveUP Argument pp. 2-3.

<sup>25</sup> Exhibit B-9, MoveUP IR 1.1.10.

<sup>26</sup> MoveUP Argument pp. 2-3.

<sup>27</sup> Exhibit B-9, MoveUP IR 1.1.10 and 1.1.10.1.

26. MoveUP's analogy to alternative energy services is misleading.<sup>28</sup> The Alternative Energy Services Inquiry was designed to provide guidance regarding the introduction of new business activities outside the traditional gas distribution utility business and to provide clarity on the Commission's views on activities that should be regulated and activities that should not be regulated.<sup>29</sup> The sharing of contact centre services between two regulated utilities is not a new business activity and is within the traditional utility services provided by FBC.

27. FBC has no incentive to avoid the \$100,000 threshold that would trigger the direction to FEI, as asserted by MoveUP.<sup>30</sup> The direction to FEI regarding the review of cost allocation methods if charges exceed \$100,000 states:<sup>31</sup>

Therefore, if in the future the annual costs being allocated to FBC from FEI for the handling of calls exceeds \$100,000 in any one year, FEI is directed to provide an analysis of various cost allocation methodologies and provide evidence as to which will provide the most appropriate results.

28. FBC's interest is in maintaining a fair and efficient cost allocation methodology. FBC has responded to numerous detailed questions in this proceeding regarding the work of the customer service representatives and their costs. Compliance with the direction would not require much more evidence than is already on the record in this proceeding and would not result in "far greater" scrutiny, as MoveUP asserts. While it is unclear what other reasonable method of allocating the costs there could be, the costs being allocated are not material and neither FEI nor FBC face any financial risk from a change in allocation methodology.

29. As discussed in Part Two of this Reply Argument above, FBC submits that the Commission should disregard MoveUP's argument from pages 7 (from the heading "The Moving Target") to page 13. In the alternative that the Commission nonetheless considers

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<sup>28</sup> MoveUP Argument, pp. 5-6.

<sup>29</sup> British Columbia Utilities Commission Report, Inquiry into the Offering of Products and Services in Alternative Energy Solutions and Other New Initiatives, dated December 27, 2012, p. 2.

<sup>30</sup> MoveUP Argument, pp. 5-6.

<sup>31</sup> Commission Order G-193-15, dated December 7, 2015, Appendix A, p. 24.

MoveUP's argument, FBC limits its reply submission to the following given that the majority of the evidence referenced by MoveUP is not on the record in this proceeding:

- (a) MoveUP's assertion that Ms. Mehrer was anything other than frank and helpful is unwarranted and based on speculation on what should or could have been known at the time of the workshops. FBC's witnesses have consistently demonstrated their openness and willingness to respond to questions. Ms. Mehrer in particular has responded to numerous and detailed questions from MoveUP. As MoveUP notes in its argument, FEI's response to the relevant undertaking was frank and helpful. FBC submits that there is no basis to conclude that its witnesses have been anything other than open and transparent in their response to questions in this proceeding.
- (b) The calculation of the 2016 projected cross charges is only an estimate at this time. The calculations of MoveUP and FEI differ by only \$9,000, and both are below \$100,000. FBC therefore does not see any reason to debate which projection may or may not be more accurate.
- (c) In the next Annual Review, actual 2016 cross charges will be available. If the 2016 costs exceed the \$100,000 threshold, then FEI will be required to provide an analysis of various cost allocation methodologies and provide evidence as to which will provide the most appropriate results, as directed by the Commission.

30. Contrary to MoveUP's assertions that "the Commission has not yet examined the wisdom of this ongoing transition in the Utilities' Customer Care Service models"<sup>32</sup> and that questions remain regarding cost allocation and service quality,<sup>33</sup> the Commission has reviewed and is currently reviewing FBC's shared service activities, including cost allocation and service quality. The Commission's review to date has included both the allocation of costs between the utilities and quality of service. In this proceeding, FBC responded to a direction by the

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<sup>32</sup> MoveUP Argument p. 3.

<sup>33</sup> MoveUP Argument p. 3.

Commission regarding quality of service in Appendix B2 of the Application. In FEI's Annual Review for 2016 Rates proceeding, the Commission concluded that the cost allocation was not unjust or unreasonable, and directed FEI to examine alternative cost allocation methodologies if the cross charges exceed \$100,000.<sup>34</sup> FBC submits that the evidence demonstrates that FBC's ongoing efforts to seek efficiencies in its Contact Centre are beneficial to customers, and the use of FEI's Customer Service Representatives is not compromising the adequacy, reliability, and safety of the service they provide.<sup>35</sup>

31. FBC disagrees that the Annual Review has only permitted a "preliminary examination" of the issues, as asserted by MoveUP.<sup>36</sup> A significant level of information has been provided and reviewed in this proceeding. For example: FBC has provided details on the different modules of training, the dates of training, and the exact schedule for training of FEI's employees.<sup>37</sup> FBC has provided details on the nature of the systems used by FBC and FEI and the degree of and plans for integration.<sup>38</sup> FBC has provided a detailed account of how service quality of FBC and FEI's Customer Service Representatives is monitored.<sup>39</sup> FBC provided a presentation on the sharing of contact centre staff in the workshop and MoveUP was able to pursue its issues through cross-examination.<sup>40</sup> FBC responded to further written undertakings from MoveUP after the workshop.<sup>41</sup> MoveUP also pursued these issues in detail in its argument. Given the low dollar value of costs involved, the level of review in this proceeding has been extensive.

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<sup>34</sup> Commission Order G-193-15, dated December 7, 2015, Appendix A, p. 24.

<sup>35</sup> Exhibit B-2, Application, Appendix B2.

<sup>36</sup> MoveUP Argument, pp. 4-5.

<sup>37</sup> Exhibit B-9, MoveUP IR 1.1.9 to 1.1.11 series.

<sup>38</sup> Exhibit B-9, MoveUP IR 1.5 series.

<sup>39</sup> Exhibit B-2, Application, Appendix B2.

<sup>40</sup> Transcript.

<sup>41</sup> Exhibit B-12 and B-13.



32. Given the above, FBC is opposed to any additional process for review of the shared services activities as requested by MoveUP.<sup>42</sup> FBC is opposed to any further process for three reasons:

- First, FBC submits that the evidence in this proceeding demonstrates that the shared services activities are beneficial and in the public interest. There is no item of concern that would warrant a further process.
- Second, FBC is currently under PBR, the goals of which include regulatory efficiency and the seeking of cost efficiencies. FBC's contact centre costs are part of FBC's formula O&M amounts under PBR, and as such FBC is given an incentive to find efficiencies in this area. An additional process to review a cost efficiency initiative would be contrary to the goals of PBR and also contrary to the PBR Plan approved by the Commission, which includes no provision for such a process.
- Third, the cost of an additional proceeding would quickly exceed the amount of cross charges between the utilities. FBC submits that the level of process undertaken in this Annual Review is already disproportionate to the level of costs of shared services activities in the contact centres.<sup>43</sup> Given the small costs involved, it would be contrary to the interest of customers for an additional proceeding to be held.

33. For all the reasons discussed above, FBC submits that MoveUP's argument does not reflect a fair and balanced view of the evidence and that MoveUP's requests and recommendations be rejected.

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<sup>42</sup> MoveUP Argument, pp. 4-5.

<sup>43</sup> Exhibit B-9, MoveUP IR 1.1.5.

## **B. Load Forecast**

34. FBC's load forecast methodology is well-understood and continues to produce reasonable results. FBC has provided its load forecast in Section 3 of the Application. This is supplemented by detailed historical and forecast load data in Appendix A2 and a detailed account of the forecasting methodology in Appendix A3.<sup>44</sup> As summarized in the Application:

FBC's load forecast methods...are consistent with those used in prior years and accepted by the Load Forecast Technical Committee in 2011, and provide a reasonable estimate of load for 2017. FBC is forecasting an increase in consumption in 2017 when compared to the 2016 Approved forecast. The total normalized gross load is forecast to be approximately 3,559 GWh which is a 19 GWh increase over the 2016 Approved gross load. The increase in 2017 is due to increased loads in the commercial, wholesale, industrial, lighting and irrigation classes which are partially offset by a decrease in residential load. Based on the 2016 rates for each customer class, FBC's 2017 revenue forecast is \$352.389 million.

35. FBC submits that its demand forecast should be approved as filed.

36. CEC, BCOAPO and ICG make four comments regarding FBC's load forecast. FBC addresses these topics below.

### **(a) Residential Forecast**

37. The residential load is forecast by multiplying the average of the most recent 3 years' (2013, 2014, 2015) normalized historical use per customer ("UPC") by the average annual customer count.<sup>45</sup>

38. The CEC argues that the Commission should direct FBC to adjust its residential load forecast for the changes to UPC arising from the addition of the City of Kelowna.<sup>46</sup> The CEC's position is that the introduction of the City of Kelowna changed the average UPC and,

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<sup>44</sup> Exhibit B-2.

<sup>45</sup> Exhibit B-2, pp. 6-18.

<sup>46</sup> CEC Argument, para. 60.

therefore, the UPC from years prior to the introduction of the City of Kelowna should not be used to calculate the UPC for purposes of the demand forecast. In short, this means removing the 2013 UPC from the average UPC calculation used in the forecast methodology. FBC does not agree that this change should be made to its forecast methodology for a number of reasons.

- While the introduction of the City of Kelowna was expected to have reduced the average UPC in 2013,<sup>47</sup> the residential UPC actually increased in that year by approximately 0.6 percent from 12.41 MWh in 2012 to 12.48 MWh in 2013. This underscores the fact that changes in residential UPC in any given year cannot be definitively explained because they are the result of many factors that may be either compounding and offsetting.<sup>48</sup>
- FBC has conducted a regression of the ten years of actual before-savings UPC data and demonstrated that it does not show a statistically significant trend. Using the three-year average is appropriate in the absence of a trend.<sup>49</sup>
- FBC tested the 2013, 2014 and 2015 normalized after savings residential UPC values for the presence of outliers and none were found. As a result, it would not be appropriate to exclude any historical data points (including 2013) from the forecast method.<sup>50</sup>
- In the absence of any statistical outliers, the current approach of calculating the three-year average of historical UPCs as a proxy for the future before-savings UPC is appropriate at this time. By averaging the most recent data, annual fluctuations can be minimized and smoothed out. A smoothing technique such

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<sup>47</sup> Exhibit B-3, BCUC IR 1.9.3.1.

<sup>48</sup> Exhibit B-7, CEC IR 1.5.3.1. Also see CEC IR 1.5.1.

<sup>49</sup> Exhibit B-3, BCUC IR 1.9.1.1 and 1.9.2.

<sup>50</sup> Exhibit B-7, CEC IR 1.5.4.

as averaging is a common and well established practice to minimize year-over-year fluctuations.<sup>51</sup>

- Customers will not be harmed by any variation in the load forecast. Any variations from the forecast load will be captured in the flow-through deferral account, and returned to or collected from customers in 2018.
- FBC should not make ad hoc adjustments to its forecast methodology from year to year based on assumptions about historical causes of variances. FBC is using a load forecasting methodology consistent with past practice that has been reviewed and approved in previous proceedings. FBC sees value in maintaining an existing methodology on a consistent basis. Changes should only be made where they can be applied systematically and on an ongoing basis where it is demonstrated that they will improve forecast results. Making ad hoc adjustments based on assumptions about historical causes of variances may or may not improve forecast results and make it difficult to provide historical analysis of the load forecasting methodology results.

39. For the above reasons, FBC submits that it is preferable to use the existing forecast methodology, rather than making the ad hoc adjustment proposed by the CEC. FBC submits that its residential load forecast should be approved as filed.

**(b) Wholesale Forecast**

40. FBC forecasts its wholesale load using the growth rates from load surveys from all wholesale customers. The response rate was 100 percent. FBC then summed the wholesale customers' forecasts to calculate the before-savings wholesale load forecast. This approach recognizes that in the near to medium term, the wholesale customers themselves are best able

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<sup>51</sup> Exhibit B-7, CEC IR 1.5.1.

to forecast their load growth based on their knowledge of their customer mix, load behaviors, development projects with associated energy requirements, etc.<sup>52</sup>

41. The CEC recommends that the Commission approve the Wholesale forecast load, but that it should direct FBC to assess possible means of adjusting the forecast to match experience for the future. The CEC's position is that, given a history of over-forecasting by customers, FBC should consider moderating the load forecast based on historical experience.<sup>53</sup> FBC does not agree that any such direction should be given:

- FBC's six-year historical forecast variance between 2.2% and 3.4% is not unreasonable.
- A recent history of over forecasting cannot be used to accurately predict a reduction to future load forecasts.
- Wholesale customers remain in the best position to forecast their future load.
- FBC's methodology is consistent with past practice and was accepted by the Load Forecast Technical Committee in 2011. FBC does not agree that it should make ad hoc and uncertain changes to its methodology, for the reasons discussed above.

42. FBC submits that the forecast methodology is consistent with past practice and producing reasonable results. As such, the CEC's request should be denied.

**(c) AMI Impact on Losses**

43. FBC presents its forecast of losses in section 3.5.7 of the Application. Consistent with past practice FBC assumed a loss rate of 8 percent of gross load, before the impact of the Advanced Metering Infrastructure ("AMI") Project, which began to have an effect on losses in

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<sup>52</sup> Exhibit B-2, Appendix A3.

<sup>53</sup> CEC Argument, para. 72-73.

2015. The forecast incremental impact of AMI is to decrease losses by 6.7 GWh in 2017. The result is an after-AMI loss reduction of 7.80% of gross load or 276.8 GWh.<sup>54</sup>

44. BCOAPO argues that the 2015 Actual should be adjusted for the impact of AMI in that year, and then a four-year average loss rate should be used as a loss factor. BCOAPO then states that adding the incremental impact of AMI in 2015 of 2.4 GWh to the 6.7 GWh forecast for 2017, results in a loss reduction of 7.67% of gross load in 2017, which is lower than the 7.80% calculated by FBC.<sup>55</sup> BCOAPO's calculations are in error and no change should be made to the loss calculation.

45. BCOAPO's calculations incorrectly assume that the incremental AMI Impact is cumulative year over year, and therefore incorrectly adds the 2015 AMI impact of 2.4% to the 6.7 GWh forecast for 2017. The AMI impacts are not cumulative year over year, but are instead incremental to the losses before AMI in each year, as shown in Table 3-4. As shown in Table 3-4, FBC's calculation begins with the "Before AMI" Losses, and then deducts the "Incremental AMI Impact" to derive the "After AMI" Losses. In short, the AMI impact of 6.7 GWh shown in Table 3-4 is the entire impact of AMI in that year. It is therefore not correct to add the 2015 AMI impact of 2.4% to the 2017 forecast in addition.

46. If one were to nonetheless substitute a four-year average in place of FBC's 8% loss factor, the result would be a before-AMI loss percentage of 7.93. Compared to FBC's before-AMI loss percentage of 7.99, the difference is only 0.06%. As can be calculated from Table 3-4, the impact of this difference is  $(7.99-7.93)\% \times 3520.1$  GWh, which equals 2.1 GWh. This is an immaterial impact to FBC's load.

47. Given the immaterial difference in the load forecast, there is no reason to deviate from FBC's past practice of using an 8% loss factor.

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<sup>54</sup> Exhibit B-2, Application, pp. 23-24.

<sup>55</sup> BCOAPO Argument, pp. 6-7.

**(d) Theft Deterrence**

48. The IRG submits that the Commission “should direct FBC to pursue its Revenue Protection program more aggressively, to accelerate the annual savings for the benefit of all customers.”<sup>56</sup> FBC submits that no such direction is required. FBC’s Revenue Protection programs are achieving the forecast targets in the AMI CPCN Application and reducing theft of electricity. There is no basis to believe that FBC can or should be able to pursue the programs “more aggressively”. Further, the Commission has already issued a direction to FBC to report on the impact of AMI on theft deterrence.

49. In Order G-107-15 in FBC’s Annual Review for 2015 Rates, FBC was directed to include in its next and subsequent Annual Review materials the impact of AMI on losses through theft deterrence, including: (i) a comparison of the projected GWh reduction for the test year and proceeding years to the estimated GWh theft reduction assumed in the AMI decision for those years; and (ii) a description of FBC’s operational activities and costs incurred in reducing electricity theft (for example, related to FBC’s Revenue Protection Program) and the regulatory treatment of these costs.<sup>57</sup>

50. FBC responded to the direction above in Section 3.5.7.1 of the Application, confirming that the current forecast loss reductions remain unchanged from those provided as part of the AMI CPCN application. FBC also noted that it is beginning to leverage the tamper detection functionality of the AMI system for theft identification, and expects to have fully implemented its energy balancing theft detection program as described in the AMI CPCN application by Q4 2016.<sup>58</sup>

51. In response to BCUC IR 1.6.1.1,<sup>59</sup> FBC also noted that the forecast savings are increasing from 2013 to 2017 as a result of a relatively rapid increase in the theft deterrence

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<sup>56</sup> IRG Argument, 5<sup>th</sup> page.

<sup>57</sup> Exhibit B-2, Application, Section 3.5.7.1.

<sup>58</sup> Exhibit B-2, Application, pp. 23-24.

<sup>59</sup> Exhibit B-3.

impact of FBC's AMI-enabled Revenue Protection program. During this period, it is expected that FBC's theft deterrence rate will increase from 77% to 88%, before gradually plateauing to a theft deterrence rate of 95% between 2018 and 2021. Consistent with this, Mr. Warren stated: "...we are seeing a fairly dramatic deterrence effect right off the gate. The number of thefts we're seeing has dropped considerably since we announced that we were undertaking this project."<sup>60</sup>

52. In summary, theft reduction through FBC's Revenue Protection programs is proceeding as planned and FBC is meeting the targets set out in its AMI CPCN Application. FBC is reporting annually to the Commission in its Annual Reviews as directed, and no further direction is required at this time.

### **C. O&M Expense**

53. Under the PBR Plan, FBC's O&M expense is primarily determined by formula, with the addition of a number of items that are forecast outside the formula on an annual basis. In 2017, the formula O&M is \$54.054 million, representing a 0.854 percent increase from the 2016 formula-O&M, entirely due to the formula drivers. O&M expenses forecast outside the formula are \$3.478 million, representing an approximate 2.8 percent increase from the amount approved for 2016. Overall, the increase in Gross O&M Expense from 2016 Approved to 2017 Forecast is approximately 1.0 percent.<sup>61</sup>

54. The only topic raised by interveners in their arguments regarding O&M expense was AMI savings. FBC responds below.

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<sup>60</sup> Transcript, p. 93.

<sup>61</sup> Exhibit B-2, Application, p. 36.



**(a) AMI Net Savings**

55. One of the O&M expense items forecast outside of the formula on an annual basis is net savings from the AMI project. As explained in section 6.3.3 of the Application:<sup>62</sup>

Incremental O&M costs related to the implementation of the AMI project will be offset by post-implementation savings, resulting in a net decrease to O&M Expense during the PBR period. 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, are forecast and tracked outside of the PBR formula.

56. As shown in Table 6-5 of the Application, the 2017 forecast costs are approximately as forecast in FBC's CPCN Application for the AMI project. The 2017 forecast savings of \$3.118 million are approximately \$0.852 million lower than the CPCN forecast of \$3.970 million.

57. The shortfall in savings is not due to any shortcoming in the functionality of the AMI project.<sup>63</sup> Rather, as explained by Ms. Roy, the CPCN Application forecast savings were in comparison to a higher base set of costs, and therefore the savings appear larger. For the currently forecast costs, the base set of costs that FBC is comparing against is lower. Since the base costs are lower, there is less to save in comparison.<sup>64</sup> BCOAPO requests that FBC provide further clarity on the reasons for the savings being lower than forecast in the CPCN Application.<sup>65</sup> FBC provided three reasons for the approximately \$0.852 million variance from its current forecast of savings from AMI and the CPCN application forecast of those savings.<sup>66</sup> Each is addressed below.

58. First, the CPCN forecast was a comparison of the savings that would be achieved with the AMI project to the costs that would otherwise be incurred to support the continuation

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<sup>62</sup> Exhibit B-2, Application, p. 38.

<sup>63</sup> Transcript, p. 88.

<sup>64</sup> Transcript, p. 99.

<sup>65</sup> BCOAPO Argument, p. 12.

<sup>66</sup> Exhibit B-2, Application, p. 39; Transcript, p. 89.

of a manual meter reading program. As such, the AMI CPCN savings were based partly on estimates of continuing with manual meter reading. These meter reading cost estimates were materially higher than actual experience in 2013 and 2014 (the last full years of manual meter reading), so savings potential was diminished.<sup>67</sup> This is the largest factor, accounting for approximately \$700,000 of the difference in forecast savings.<sup>68</sup>

59. BCOAPO points out the PBR Base was set based on the 2013 Approved O&M, not 2013 or 2014 actual spending, and that it is not clear “whether the reduction FBC has made” is appropriate.<sup>69</sup> First, for clarity, the difference at issue is not a reduction made by FBC, but the difference between savings forecast in the CPCN Application and the forecast made presently. Second, BCOAPO is correct that the PBR Base was set on the 2013 Approved O&M. FBC was clear that the reduced metering costs were reflected in the PBR base. Mr. Warren stated at the workshop:<sup>70</sup>

Our actual expenditures that year, the first year of PBR, were \$2.28 million. So a little over \$700,000 less than forecast in the CPCN. So what is embedded in PBR effectively is already a \$700,000 plus savings to customers as compared to what was in the CPCN.

Now, because there's less money in the PBR budget than we had expected in the CPCN, those savings -- you know, you can't save \$2.984 million if you're not spending \$2.984 million. So this difference in meter reading costs accounts for about \$700,000 of that shortfall. So it is the major part of the savings shortfall.

60. As explained above, approximately \$700,000 in savings are already reflected in the PBR Base. As such, what was forecast as a savings due to the AMI project in the CPCN Application has already been realized and reflected in the PBR formula O&M amounts.

61. Second, FBC’s Measurement Canada compliance costs that were anticipated to be saved in the AMI CPCN Application are already embedded in PBR. This is because the PBR

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<sup>67</sup> Exhibit B-2, Application, p. 39.

<sup>68</sup> Transcript, pp. 88-89.

<sup>69</sup> BCOAPO Argument, p. 12.

<sup>70</sup> Transcript, pp. 88-89.

Base anticipated that these costs would not be incurred due to the AMI project. So, the additional Measurement Canada compliance costs that FBC would have incurred had the project not been approved were not in the PBR O&M Base.<sup>71</sup> BCOAPO does not comment on this reason for the variance in the forecast.

62. Third, FBC stated that the forecast Remote Connect/Disconnect savings are lower than forecast, in part due to the discontinuation of the \$100 meter connection fee for premises that are remotely reconnected following disconnection for vacancy, as accepted by Letter L-1-16.<sup>72</sup> BCOAPO raises the concern that connection fees are captured in Other Revenues, such that any reduction would already be captured there. FBC confirms that connection fees are captured in Other Revenues. Variances in other revenue are recorded in the Flow-through deferral account.<sup>73</sup> Taking this into account, FBC agrees with BCOAPO that this is not a source of any variance in O&M costs or savings.

63. In summary, the AMI project functionality is as planned, costs are similar to forecast, and savings are lower than forecast due to a lower base cost from which the savings are measured. Also, as noted by Mr. Warren, existing operating costs have been reduced to the levels expected in the CPCN.<sup>74</sup>

64. As directed by the Commission in Order C-7-13, FBC will file a detailed cost/benefit report on AMI costs and savings within six months of completion of the AMI project.<sup>75</sup> The AMI project is expected to be complete by the end of 2016. FBC intends to file the AMI costs and savings report in June 2017.<sup>76</sup>

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<sup>71</sup> Transcript, p. 89.

<sup>72</sup> Exhibit B-2, Application, p. 39.

<sup>73</sup> Exhibit B-2, Application, p. 35.

<sup>74</sup> Transcript, p. 98.

<sup>75</sup> Exhibit B-2, p. 39.

<sup>76</sup> Exhibit B-3, BCUC IR 1.10.6.

**D. Rate Base**

**(a) Working Capital**

65. FBC's Working Capital forecast is discussed in section 7.8 of the Application. FBC explained that the increase in Working Capital from \$0.697 million in the 2016 Approved to \$1.520 million for the 2017 Forecast is primarily due to an increase in the forecast of uncollectible accounts. FBC forecasts this value to be \$1.520 million in 2017, based on the 2015 actual value of \$1.504 million.<sup>77</sup>

66. BCOAPO states that it is not clear if the difference between forecast and actual working capital requirements is captured in the Flow-through deferral account.<sup>78</sup> The working capital affects the revenue requirement through the financing and equity return that it attracts. Under the PBR Plan, variances from forecast financing (interest expense) are captured in the Flow-through deferral account. Return on equity is not captured. Please refer to Table 12-1 of the Application for a full description of the variances captured in the Flow-through deferral account.

**(b) Ruckles Substation Rebuild Project**

67. The evidence in this proceeding demonstrates that the Ruckles Substation Rebuild Project (the "Ruckles Project") is necessary for continued safe and reliable service to customers and is in the public interest.

68. FBC provided a detailed business case for the Ruckles Project in Appendix C of the Application. As summarized there, the Ruckles Project is the proposed rebuilding of the existing Ruckles Substation on the existing substation site, and is necessary to continue to safely and reliably supply electricity to the City of Grand Forks' municipal electric utility, an industrial sawmill and the surrounding FBC service area. The Ruckles Project will address the reliability,

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<sup>77</sup> Exhibit B-5, BCOAPO 1.14.1.

<sup>78</sup> BCOAPO Argument, p. 18.

environmental and employee safety risks due to its location within the flood zone of the Kettle River, will eliminate the risk of arc flash associated with the existing 4 kV switchgear, will replace obsolete protection, control and metering equipment with equipment that meets current FBC standards, and will increase the capacity of the substation and improve customer reliability. The estimated capital cost of the Ruckles Project in as-spent dollars (including AFUDC and removal costs) is \$8.288 million. Final construction and commissioning of the Ruckles Project is scheduled to be completed by the winter of 2018.<sup>79</sup>

69. The four drivers of the project are discussed in detail in the Business Case, and summarized as follows:<sup>80</sup>

- There are employee safety, environmental and customer supply reliability risks as a result of the location of the Ruckles Substation and the high voltage infrastructure and associated protection and control equipment within the flood zone of the Kettle River;
- There is an employee safety and reliability risk resulting from the arc flash potential associated with the switching equipment that provides the 4kV source of supply to the City of Grand Forks municipal electric utility and the sawmill;
- The existing substation protection, control and metering equipment is obsolete and presents safety and reliability risks in the event of failures; and
- FBC customers in the Grand Forks area are exposed to potentially lengthy outages as the Ruckles substation does not meet FBC's planning criteria for backup during contingency operations.

70. FBC's detailed business case and presentation at the workshop<sup>81</sup> demonstrated the need for the Ruckles Project and that FBC's preferred alternative is the most cost effective

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<sup>79</sup> Exhibit B-2, Appendix C, p. 1.

<sup>80</sup> Exhibit B-2, Appendix C, p. 3.

option. FBC submits that the review of the Ruckles Project in this proceeding confirms the conclusion in FBC's business case that the Project is necessary for continued safe and reliable service and is in the public interest.

71. In their arguments, interveners did not take issue with the need for the Ruckles Project or FBC's alternatives analysis and preferred alternative for the Ruckles Project. However, BCOAPO expressed concern regarding FBC's consultation with the City of Grand Forks, and the ICG, BCMEU and CEC arguments comment on FBC's cost estimate for the Ruckles Project. As described below, these concerns are all misplaced. FBC has consulted with the City of Grand Forks and its cost estimate for the Ruckles Project is reasonable.

#### ***Consultation with City of Grand Forks***

72. BCOAPO acknowledges that FBC has discussed the Ruckles Project with the City of Grand Forks on a number of occasions.<sup>82</sup> However, BCOAPO asserts that FBC has not incorporated the City of Grand Forks plans into its assessment of the Ruckles Project, and requests that the Commission direct FBC to formally consult the City on its plans "and demonstrate in future Annual Reviews that it has reflected the results of the City's plans in the capacity planned for the new Ruckles Substation."<sup>83</sup> FBC submits that BCOAPO's comments do not reflect the evidence in this proceeding and no direction is required regarding consultation with the City of Grand Forks.

73. FBC's has in fact consulted with the City of Grand Forks with respect to the Ruckles Project and the City has no concrete plans at this time to become a transmission customer. In its Business Case for the Ruckles Project, FBC stated that it had "discussed the Ruckles Project with the City of Grand Forks municipal electric utility on a number of occasions. Following the most recent discussions, the City of Grand Forks municipal electric utility

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<sup>81</sup> Exhibit B-11, Workshop Presentation, pp. 16-26; Transcript, p. 25 ff.

<sup>82</sup> BCOAPO Argument, p. 15.

<sup>83</sup> BCOAPO Argument, p. 15.

indicated that they understand the basis on which FBC is proposing the Ruckles Project and do not have a concern with FBC proceeding with the Ruckles Project at this time.”<sup>84</sup>

74. At the workshop, counsel for the BCMEU indicated that the City of Grand Forks was “contemplating building a substation to service Grand Forks” and asked for an update on FBC’s thinking on that “possibility”.<sup>85</sup> These statements by BCMEU’s counsel do not constitute evidence of concrete plans by the City of Grand Forks to build a substation. FBC also notes that in its argument the BCMEU did not object to the need for the Ruckles Project and made no request for further consultation with the City of Grand Forks.

75. FBC provided clarification on the status of the City of Grand Forks plans in its response to undertakings from the workshop, as follows:<sup>86</sup>

FBC confirms speaking with the City in July 2016 about how the preferred option for the Ruckles Rebuild Project considered the City’s plans to voltage convert over the long term and any potential future plans to convert to a transmission customer. The City confirmed that no decisions had been made with respect to whether it would become a transmission customer and did not have concrete plans with regard to the schedule for continuation of its 4kV to 13kV voltage conversion program. At this time, FBC has not received any request from the City to become a transmission customer but, should the City decide to do so, the process to apply to become a transmission customer and then build their own substation would take approximately 3-5 years.

76. As indicated above, the City of Grand Forks has no concrete plans and it would take a lengthy period of time for it to become a transmission customer and construct its own substation.

77. FBC confirmed in the proceeding that there is an urgency with respect to constructing the Ruckles Project.<sup>87</sup>

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<sup>84</sup> Exhibit B-2, Application, Appendix C, p. 23.

<sup>85</sup> Transcript, pp. 37-38.

<sup>86</sup> Exhibit B-13, Cover Letter, p. 2.

<sup>87</sup> Exhibit B-7, CEC IR 1.25.1.

FBC confirms that there is urgency with respect to the Ruckles Substation Rebuild Project. The Project as proposed will mitigate identified safety, environmental, and reliability risks associated with flooding, and safety and reliability risks resulting from the arc flash potential, and obsolete protection, control, and metering equipment. As such, FBC considers it prudent to execute the project as proposed and according to the execution schedule included as Appendix C-3 to the Application. Similar to Option 1 – Do Nothing, deferral would not mitigate the immediate risks to safety, to the environment, and to reliability as identified in Section 3.1 of the business case provided as Appendix C to the Application.

78. Delaying the project would leave safety, reliability and environmental risks unaddressed. Deferral of the project could also lead to increased costs associated with addressing failures or damage resulting from the unmitigated safety, environmental, and reliability concerns.<sup>88</sup>

79. As indicated by Mr. Chernikhowsky at the workshop, FBC has an obligation to plan to serve its customers.<sup>89</sup> The City of Grand Forks is currently a wholesale customer, with no concrete plans to change that status. FBC has consulted with the City and the City indicated that it does not have a concern with FBC proceeding with the Ruckles Project at this time. Consistent with this, the BCMEU's argument does not contest the need for the project. Moreover, even if the City of Grand Forks were to become a transmission customer, the Ruckles Substation would still be necessary, as it is also required to serve the sawmill and FBC's other customers in the area.<sup>90</sup>

80. For these reasons, there is no need for any direction from the Commission with respect to further consultation with the City of Grand Forks. There is an urgent need for the Ruckles Project, and it would be inappropriate to delay construction given the safety, environmental and reliability risks of the existing station.

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<sup>88</sup> Exhibit B-3, BCUC IR 1.21.2.

<sup>89</sup> Transcript, pp. 37-38.

<sup>90</sup> Transcript, pp. 37-38.



### ***Cost Estimate***

81. The ICG, BCMEU and CEC comment on FBC's cost estimate for the Ruckles Project in comparison to the Nelson Hydro substation example brought forward at the workshop. As discussed below, there is no merit to the submissions of these interveners. FBC's cost estimate is rigorous and reasonable, and also is only an estimate at this time. Actual costs will reflect the competitive tendering of the work and equipment and other cost saving measures implemented by FBC.

82. The Ruckles Project is estimated at a capital cost of \$8.288 million in as-spent dollars (including \$0.428 million of AFUDC and \$0.301 million of removal costs). The cost estimate for the Project has been developed to a Class 3 degree of accuracy as defined in the American Association of Cost Estimators (AACE) International Recommended Practice No. 10S-90.<sup>91</sup> This is the level of cost estimate the Commission requires in its CPCN Guidelines for CPCN projects.<sup>92</sup> The cost estimate includes a 15% to 20% contingency for each project component, as described in response to BCUC IR 1.26.1. The scope, schedules and risk mitigation measures of the Ruckles Project are described in section 4 of the Business Case. A breakdown of the Project capital costs by scope component is provided in response to BCMEU 1.6.1.

83. At the workshop, counsel for the BCMEU sought comfort that FBC's cost estimate for the Ruckles Project was reasonable in light of the Nelson Hydro Rosemont Substation Rebuild, which cost less. FBC explained the reasons for the difference between the Nelson Hydro Rosemont Substation Rebuild actual expenditures and the estimated costs of the Ruckles Project in response to an undertaking, as follows:<sup>93</sup>

The estimated cost of the FBC Ruckles Rebuild Project (\$7.6 million) is \$4.1 million higher than the actual cost of the Nelson Hydro Rosemont Substation Rebuild (\$3.5 million) due to significant differences between the projects in scope, civil work, materials and equipment selection and sourcing, and system

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<sup>91</sup> Exhibit B-2, Appendix C, Ruckles Project Business Case, p. 22.

<sup>92</sup> Transcript, pp. 47-49.

<sup>93</sup> Exhibit B-13, Response to Workshop Undertakings, pp. 1-3.

design, as well as due to the impact of inflation and the exchange rate. While the projects may seem similar at a high level, e.g. they have a similar capacity and number of feeders, they in fact are very different.

The following is a high-level overview of the reasons why the estimated cost of the Ruckles Rebuild Project is higher than the actual costs of the Rosemont Substation Rebuild:

- The Ruckles Rebuild Project requires significantly more civil work than the Rosemont Substation Rebuild in order to address the flood risk posed by the Kettle River, one of the key drivers of the project. FBC estimates that the incremental civil costs associated with raising the elevation of the Ruckles Substation to address the flood risk is approximately \$550 thousand;
- Nelson Hydro purchased a 35 MVA transformer from Taiwan-based Shihlin Electric whereas FBC plans to purchase a 40 MVA transformer from an established North American-based supplier. FBC prefers to use North American-based vendors as they typically provide better support and the transformers are typically of higher quality. As a result of vendor selection, and of the devaluation of the Canadian dollar since 2012/13 (discussed below), FBC estimates that the incremental transformer purchasing costs are approximately \$500 thousand. There might be other cost variances that may result from differences between the transformer specifications but FBC has not assessed further at this time;
- Nelson Hydro installed four 25kV distribution feeders whereas FBC plans to install two 4kV distribution feeders and two 13kV distribution feeders. As a result, FBC must install two step-down transformers (13kV to 4kV) with oil containment and cabling. FBC estimates that the requirement to maintain two sources of supply results in incremental costs of approximately \$500 thousand;
- Nelson Hydro installed indoor metalclad switchgear supplied by General Switchgear and Controls Inc. (GSC) whereas FBC plans to use air-insulated outdoor switchgear (AIS) supplied by Mitsubishi Electric Power Products Inc. (MEPPI).
- One of the key drivers for the Ruckles Rebuild Project is to address the high arc flash hazard associated with the existing switchgear at Ruckles Substation. FBC's standard substation design practice is to use AIS switchgear wherever possible due to the decreased arc flash risk, and the

improved maintainability and expandability of AIS equipment compared to indoor metalclad switchgear.

- FBC prefers the use of MEPPI breakers due to quality and ongoing support considerations. GSC was not considered as a potential supplier as they went into receivership in 2014 and are no longer in business.
- For the high voltage 69kV breaker, Nelson Hydro chose Pennsylvania Breakers as their preferred supplier whereas FBC plans to purchase its 69kV breaker from MEPPI. Pennsylvania Breaker was not considered as a potential supplier as they suspended operations in 2014.
- FBC estimates that its system design and vendor selection results in an estimated incremental cost of approximately \$150 thousand;
- The footprint of the existing Ruckles Substation area is more than double that of Rosemont Substation (1650 m<sup>2</sup> vs. 760 m<sup>2</sup>). Additionally, FBC anticipates higher cabling and conduit costs associated with the use of AIS switchgear instead of indoor switchgear. FBC estimates that the additional grounding, cabling, and conduit results in an estimated incremental cost is approximately \$150 thousand;
- Nelson Hydro was able to completely de-energize the Rosemont Substation in advance of construction whereas FBC will have to maintain supply throughout construction. As a result, there is a considerable amount of staging that is required to facilitate construction. FBC estimates that the requirement to maintain supply during construction results in incremental construction costs of approximately \$250 thousand;
- Nelson Hydro required minimal transmission and distribution reconfiguration, whereas FBC will have to reconfigure the transmission ingress to facilitate construction stages, and will have to reconfigure the distribution egress to add new City of Grand Forks and industrial sawmill interconnections. FBC anticipates that this will result in incremental transmission and distribution reconfiguration costs of approximately \$225 thousand;
- Nelson Hydro incurred \$100 thousand for cost of removal whereas FBC estimates the Ruckles Substation cost of removal to be approximately \$290 thousand, a variance of \$190 thousand. This is largely driven by:
  - the proposed removal of two power transformers at Ruckles Substation compared to one power transformer at the Rosemont Substation;

- the proposed removal of both indoor metalclad switchgear and outdoor switchgear, and associated civil, physical and electrical supporting infrastructure at Ruckles Substation compared to the removal of two outdoor reclosers, and associated civil, physical and electrical supporting infrastructure, at Rosemont Substation; and
  - the proposed demolition of the existing control building at the Ruckles Substation.
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- Approximately \$1.05 million of the difference between the actual Nelson Hydro Rosemont Substation Rebuild expenditures and the FBC Ruckles Substation Rebuild is due to contingency (\$800 thousand) and inflation adjustment (\$250 thousand, using 2% annual adjustment).

The variance between the Nelson Hydro Rosemont Substation Rebuild actual expenditures (\$3.5 million) and the estimated project costs of the FBC Ruckles Rebuild Project (\$7.6 million) is \$4.1 million, of which \$3.6 million has been explained by the above analysis.

Further, while FBC is not able to quantify the impact, there may also be a discrepancy due to the devaluation of the Canadian dollar since 2012 / 2013 when the Rosemont Substation was constructed.

84. FBC submits that it has explained the difference between the Nelson Hydro Rosemont Substation Rebuild actual expenditures and the estimated costs of the Ruckles Project. FBC's cost estimate for the Ruckles Project is reasonable and based on sound engineering judgment.

85. The BCMEU takes issue with FBC preference for a North American supplier, noting experiences with suppliers from Taiwan and Korea.<sup>94</sup> BCMEU's concerns are misplaced. FBC will be competitively tendering for the project, so the supplier of the transformer has not been determined.<sup>95</sup> As FBC will be competitively tendering its equipment for the Ruckles Project, an off shore supplier from Taiwan or Korea may be chosen assuming the vendor meets FBC specifications. Regardless of the source of the transformer, costs may be lower or higher than estimated.

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<sup>94</sup> BCMEU Argument, p. 1.

<sup>95</sup> Transcript, pp. 45-46.

86. FBC clarifies that the Waneta Expansion Project was constructed by a partnership which included FBC's parent company; FBC is not a shareholder of the project, as claimed by the BCMEU.<sup>96</sup> There is no evidence on the record regarding the equipment procurement practices used in the project, which would not be comparable to the Ruckles Project in any case.

87. BCMEU also suggests "FBC consider installing 1 auto transformer instead of 2 thereby reducing secondary containment requirements from 3 down to 2, or install a 3 winding power transform to eliminate the need for autotransformers, similar to what exists at the current station, which would then reduce secondary containment needs from 3 down to 1."<sup>97</sup> As indicated in the Project scope, two auto transformers are required to provide sufficient and reliable capacity to serve the associated customers (the City of Grand Forks and the industrial sawmill), and thus a single transformer would not meet the project objectives.<sup>98</sup> Notwithstanding this, as stated by Mr. Chernikhowsky, FBC is always looking for way to minimize costs when conducting its projects. FBC will take BCMEU's advice under consideration. The Ruckles Project cost estimate is only an estimate at this time. FBC will be reporting on actual costs in future Annual Reviews and only actual costs will be recovered from ratepayers.<sup>99</sup>

88. Despite the analysis provided in the response to the undertaking, ICG submits that it is "a glaring example of systemic cost control issues at FortisBC." Contrary to ICG's submission, there is no evidence of any cost control issues at FBC. As stated by Mr. Chernikhowsky, FBC has completed a number of substations in recent history and has a very

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<sup>96</sup> BCMEU Argument, p. 1.

<sup>97</sup> BCMEU Argument, p. 2.

<sup>98</sup> Exhibit B-2, Appendix C, page 20.

<sup>99</sup> Transcript, pp. 49-50. The Commission's Decision on FBC's Application for Treatment of Major Project Capital Expenditures (Order G-80-16) ordered that the costs of the Ruckles Project, if approved, should be flowed through outside the formula capital spending.

good track record in terms of completing projects for a reasonable cost compared to the original estimate.<sup>100</sup>

89. The ICG's states that "FortisBC had decided to purchase transformers from a North American supplier."<sup>101</sup> This is incorrect. While FBC may prefer North American suppliers, the estimate for the Ruckles Project is only an estimate at this time. FBC will be competitively tendering for the project, so the supplier of the transformer has not been determined. As stated by Mr. Chernikhowsky:<sup>102</sup>

So when we're conducting our projects, of course, we're always looking to minimize costs and one of the best mechanisms that we do there is competitive tendering. So right now we have budgetary prices in this project allowed for equipment procurement, for construction. Will those costs materialize? We may very well be able to squeeze contractors and the project may come in at a lower cost than what we projected now.

90. As FBC will be competitively tendering its equipment for the Ruckles Project, an off shore supplier may be chosen. Regardless of the source of the transformer, costs may also be lower than estimated.

91. The Commission should disregard ICG's submission that "BC Hydro and Nelson Hydro source transformers of this size from off shore."<sup>103</sup> There is no evidence on the record of this proceeding regarding BC Hydro procurement practices, and only one example of the transformer sourced by Nelson Hydro for the Rosemont Substation.

92. The ICG asserts that "FortisBC relies on its standard substation design practice to use AIS switchgear wherever possible due solely to decrease arc flash risk without consideration of arc flash mitigation measures for lower cost indoor metal clad switchgear."<sup>104</sup>

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<sup>100</sup> Transcript, p. 42.

<sup>101</sup> ICG Argument, p. 3.

<sup>102</sup> Transcript, pp. 45-46.

<sup>103</sup> ICG Argument, p. 3.

<sup>104</sup> ICG Argument, p. 3.

ICG's statement is not supported by the evidence: FBC does not use air-insulated outdoor switchgear (AIS) switchgear solely to decrease arc flash risk; it is clear that FBC has considered the alternative of using indoor metal clad switchgear; and there is no evidence that the indoor metal clad switchgear has lower costs overall. In its undertaking response, FBC states:<sup>105</sup>

FBC's standard substation design practice is to use AIS switchgear wherever possible due to the decreased arc flash risk, and the improved maintainability and expandability of AIS equipment compared to indoor metalclad switchgear.

93. FBC's statement above indicates three reasons for preferring AIS switchgear: (1) decreasing arc flash risk, (2) improved maintainability, and (3) expandability. The fact that FBC has a standard substation design practice and has identified the benefits of AIS switchgear over indoor metalclad switchgear demonstrates that FBC has considered the alternatives and determined what option is the most beneficial. Further, taking into account the advantages of AIS switchgear, including improved maintainability, there may be operating and other savings over time that offset any initial cost difference between the two alternatives. ICG makes no allowance for such considerations.

94. The safety benefits due to decreased arc flash risk must also be considered when choosing the switchgear. One of the key drivers for the Ruckles Project is to address the high arc flash hazard associated with the existing switchgear at Ruckles Substation. Mr. Chernikhowsky explained that arc flash risk has been recognized in the industry as one of the most significant safety risks to employees. An arc flash results when a fault occurs in high voltage equipment and electricity conducts through the air. As illustrated in the video presentation at the workshop, it releases tremendous amounts of heat, light, sound and concussive energy.<sup>106</sup> Value must be attributed to decreasing the risk of arc flash.

95. In summary, the ICG, BCMEU and CEC's concerns regarding the cost estimate for the Ruckles Project are unwarranted. FBC provided a detailed engineering account of why the

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<sup>105</sup> Exhibit B-13, Response to Undertaking No. 1.

<sup>106</sup> Transcript, p. 30.

Nelson Hydro substation is not comparable. The cost estimate for the Ruckles Project is supported by detailed evidence on the scope of the Project and is reasonable. As with all of its projects, FBC will look for cost saving opportunities during the implementation of the Ruckles Project, including through competitive tendering. FBC submits that the capital expenditures for the Ruckles Project are in the public interest and should be accepted by the Commission.

**(c) UBO Project**

96. The evidence in this proceeding demonstrates that the Upper Bonnington Old Units Refurbishment Project (the “UBO Project”) is in the public interest. As summarized in the Business Case for the project in Appendix D of the Application, the UBO Project involves the replacement or refurbishment of various components of four of the generation plant’s six units, which are at end of life and can no longer be operated in a safe, reliable, and environmentally responsible manner. The four Old Units (Units 1 to 4) were not included in the Upgrade and Life Extension (ULE) program, which refurbished the remaining 11 of FBC’s 15 generating units, although certain components of Unit 3 have been repaired or replaced due to failure in the last three years. The UBO Project, which will be executed over the period 2017 – 2021, will extend the productive life of the Old Units for the next twenty years or more and has an estimated total capital cost of \$31.783 million (including financing and removal costs). The UBO Project is comprised of four smaller projects (one for each of the four generation units) in addition to project completion work on elements common to the four units. Capital costs for the four units range from \$5.412 million to \$9.579 million per unit. Additional capital expenditures beyond the initial 20-year timeframe would increase the productive life to 40 years, however FBC is not seeking approval of those expenditures at this time.<sup>107</sup>

97. As explained in detail in the Business Case, the objectives of the UBO Project are:<sup>108</sup>

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<sup>107</sup> Exhibit B-2, Application, Appendix D, p. 1.

<sup>108</sup> Exhibit B-2, Application, Appendix D, p. 19.



- To ensure the availability of reliable supply to FBC's customers at the lowest reasonable cost;
- To mitigate the safety risks to FBC's employees that result from the obsolete design and poor condition of the generating units; and
- To mitigate the environmental risks posed by the increasing likelihood of failure of the aged equipment.

98. FBC's chosen Refurbishment option meets these objectives and provides the appropriate balance between continued safe and reliable management of the asset by refurbishing the Units to provide a forecast life expectancy of 20 years and minimizes the customer rate impacts associated with the Project.<sup>109</sup>

99. FBC elaborated on the business case for the UBO Project in its responses to information requests, its presentation at the workshop, responses to oral questions and written undertaking Responses. FBC submits that the evidence demonstrates that the UBO Project as proposed is in the public interest.

100. The general support for the UBO Project from interveners in their arguments, in FBC's submission, speaks to the sound and compelling business case put forward for the project. FBC submits that the Commission should accept the expenditures for the UBO Project as filed.

101. The CEC and ICG are the only interveners to raise any concern with FBC's proposed UBO Project. FBC replies to their arguments below.

102. The CEC argues that FBC should be required to provide a Class 3 cost estimate for the project, as required for a CPCN project.<sup>110</sup> As explained by Mr. Leclair at the workshop,

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<sup>109</sup> Exhibit B-2, Application, Appendix D, section 3.

<sup>110</sup> CEC Argument, para. 159.

the estimate for the UBO Project is a class 3 estimate in all respects except for the submerged and embedded components.<sup>111</sup>

So the estimate itself is a class 4 estimate because the scope is still contingent on the as-found condition of the submerged and the embedded components. So, and it's not practical for us to -- in order for us further define that scope we'd have to dewater the units, dismantle the units, assess the components for strength, and determine, you know, the exact scope of each component to move forward. So that would take significant labour and power supply costs, and then of course we're sort of doing work we would have to do because then we'd have to put the units back together again.

Having said that, the estimate that we put forward meets all other criteria of a Class 3 estimate with the exception of the scope definition for the embedded and submerged components.

103. FBC submits that in these circumstances it would not be reasonable or in the interest of customers to require the expenditure of significant resources to define the scope of the submerged and embedded components. Any risk related to these components has been adequately addressed by the addition of contingency and assumptions regarding the replacement of some of the submerged components.<sup>112</sup> FBC submits that the UBO Project cost estimate is reasonable and should be accepted.

104. ICG submits: "Given that the Canal Plant Agreement is within the jurisdiction of the Commission, the Commission should not approve the project unless it has determined that there are power generation benefits to BC Hydro."<sup>113</sup> FBC submits that the ICG's argument is legally incorrect, and must be rejected. ICG's argument depends on the premise that the Second Amended and Restated 2005 Canal Plant Agreement ("2005 CPA") and the FortisBC Entitlement Adjustment Agreement (the "Adjustment Agreement") are subject to the Commission's jurisdiction.<sup>114</sup> As discussed below, the 2005 CPA and Adjustment Agreement are not within the jurisdiction of the Commission, and FBC is legally entitled to rely on the

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<sup>111</sup> Transcript, p. 78.

<sup>112</sup> Transcript, p. 78.

<sup>113</sup> ICG Argument, p. 2.

<sup>114</sup> Exhibit B-13, Attached to Response to Undertaking No. 2.

contractual benefits under these agreements. The UBO Project preserves FBC's entitlements under the 2005 CPA and Adjustment Agreement for the benefit of FBC's customers and is in the public interest.

105. First, the ICG's argument rests on the incorrect assumption that the 2005 CPA is subject to the Commission's jurisdiction. In fact, the 2005 CPA is not within the Commission's jurisdiction. In Order G-41-06, the Commission ordered that the 2005 CPA and the FortisBC Entitlement Adjustment Agreement (the "Adjustment Agreement") are exempt from the *Utilities Commission Act*.<sup>115</sup> Item 1 of Order G-41-06 is as follows:

The Commission, pursuant to Section 88(3) of the Act, orders that FortisBC and BC Hydro (including their successors and assigns) are exempt from all provisions of the Act in respect of the 2005 CPA, as amended from time to time, and the Adjustment Agreement, as amended from time to time.

106. The Canal Plant Agreement is a complex commercial arrangement between six sophisticated entities relating to the co-ordination of generation and integration of the systems of BC Hydro and the other parties to the agreement.<sup>116</sup> In the words of the Commission: "The Agreements, which update, amend and extend the arrangements under the Original CPA, contain a carefully balanced set of obligations and rights that have been agreed upon through protracted negotiations."<sup>117</sup> The Reasons for Decision record that FBC and BC Hydro sought exemptions "to remove uncertainty relating to possible alterations to the Agreements through any current or future Commission process."<sup>118</sup> Furthermore, the Commission acknowledged that the original Canal Plant Agreement "supported government policy to maximize the value of British Columbia's hydroelectric resources and the benefits arising from the Columbia River Treaty, while balancing the interests of all of the parties" and that the 2005 CPA and

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<sup>115</sup> Order G-41-06 and the Reasons for Decision are available on the Commission's website:

[http://www.bcuc.com/Documents/Proceedings/2006/DOC\\_11706\\_G-41-06\\_BCH-FBC\\_Canal\\_Plant\\_Agrmnt\\_Reasons\\_for\\_Decision.pdf](http://www.bcuc.com/Documents/Proceedings/2006/DOC_11706_G-41-06_BCH-FBC_Canal_Plant_Agrmnt_Reasons_for_Decision.pdf)  
[http://www.bcuc.com/Documents/Proceedings/2006/DOC\\_11706\\_G-41-06\\_BCH-FBC%20Canal%20Plant%20Agrmnt%20Reasons%20for%20Decision.pdf](http://www.bcuc.com/Documents/Proceedings/2006/DOC_11706_G-41-06_BCH-FBC%20Canal%20Plant%20Agrmnt%20Reasons%20for%20Decision.pdf).

<sup>116</sup> Exhibit B-13, Attached to Response to Undertaking No. 2.

<sup>117</sup> *Ibid.*, Reasons for Decision, p. 10.

<sup>118</sup> *Ibid.*, Reasons for Decision, p. 5, and also see p. 10.

Adjustment Agreement continue to balance the interests of each of the parties in response to new circumstances.<sup>119</sup>

107. The ICG's suggestion that FBC should be required to demonstrate further power generation benefits than required under the 2005 CPA and Adjustment Agreement is contrary to the balance of interests agreed to by the parties of the agreements, contrary to the intent of the Commission's exemption order for those agreements, and outside the jurisdiction of the Commission.

108. In short, the 2005 CPA and Adjustment Agreement are legally binding commercial contracts that are not subject to any provision of the Utilities Commission Act. FBC is therefore entitled to rely on its rights under the 2005 CPA and Adjustment Agreement. Under the agreements, FBC has contractual rights to energy entitlements that flow from the operation of the UBO plant. The Adjustment Agreement, section 2.8, explicitly contemplates refurbishment of the Old Units and entitlements that flow from the same.<sup>120</sup>

109. As FBC explained in its response to Undertaking No. 2, FBC is meeting its obligations under section 2.8 of the Adjustment Agreement, and will consult and cooperate with BC Hydro as required:

FBC notes that the project does not involve any "design" work of the kind contemplated by section 2.8 of the EAA [Adjustment Agreement]. The project principally involves refurbishment of the Upper Bonnington Units 1-4 (the "Old Units"), with only some (limited) replacement of components. Accordingly, the requirement set out in section 2.8 of the EAA to cooperate with BC Hydro on any such "design" is not triggered. If, as FBC proceeds to implement the project, it determines that design work is required as contemplated in section 2.8 of the EAA, then FBC will, of course, consult and co-operate with BC Hydro as to any applicable design elements. In any event, FBC will take up with BC Hydro, at all applicable times, any relevant operating issues with respect to implementation of the project including, for example, coordination of the annual Unit outage schedule.

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<sup>119</sup> Ibid., Reasons for Decision, p. 10.

<sup>120</sup> Exhibit B-13, Response to Undertaking No. 2.

110. Further, FBC outlined its consultation on the UBO Project in its Business Case.<sup>121</sup> As discussed in response to ICG IR 1.4.1 to 1.4.4, a CPCN was not required for the UBO Project and the consultation requirements in the Commission's CPCN Guidelines are therefore not applicable. In summary, no consultation with BC Hydro regarding power generation benefits is required for the UBO Project.

111. FBC's financial analysis in the Business Case for the UBO Project correctly considers the loss of entitlements under the 2005 CPA if the Old Plants were to be decommissioned. Under the 2005 CPA, BC Hydro receives the actual generation from the UBO plants and FBC receives an entitlement of energy and capacity, regardless of actual generation.<sup>122</sup> The forecast cost of replacing the energy entitlement with PPA energy purchases would be \$5.574 million in 2017, increasing to \$8.707 million in 2032.<sup>123</sup> The high cost of replacing the energy entitlements makes decommissioning even one of the Old Plants uneconomic.<sup>124</sup>

112. FBC's business case for the UBO Project is sound and demonstrates that the project is in the public interest. FBC has no obligation to demonstrate that there are power generation benefits to BC Hydro as requested by ICG. FBC submits that ICG's argument is without merit and must be rejected.

#### **E. Continuing Z-Factor/Exogenous Factor Treatment For Incremental MRS Costs**

113. Consistent with Commission Order G-202-15, FBC continues to apply exogenous factor treatment for the incremental costs to implement new mandatory reliability standards ("MRS") in compliance with Commission Order R-38-15. FBC discusses its O&M and Capital costs related to MRS compliance in sections 6.3.4 and 7.3.2 of the Application, and discusses the exogenous factor treatment of these costs further in section 12.2.2 of the Application.

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<sup>121</sup> Exhibit B-2, Appendix D, p. 34.

<sup>122</sup> Exhibit B-3, BCUC IR 1.32.1.1.

<sup>123</sup> Exhibit B-2, Appendix C, UBO Project Business Case, p. 21.

<sup>124</sup> Exhibit B-3, BCUC IR 1.31.1.

114. In 2016 FBC began to incur O&M and capital costs for MRS in compliance with Order R-38-15 dated July 24, 2015. In Order R-38-15, the Commission adopted 34 reliability standards and the NERC (North American Electric Reliability Corporation) Glossary of Terms as recommended for adoption by BC Hydro in MRS Assessment Report No. 8. The costs FBC incurred to comply with Order R-38-15 are incremental to the costs in FBC's formula O&M and Base Capital amounts.

115. In its Decision on FBC's Annual Review for 2016 Rates, the Commission determined that FBC's 2016 costs required for the adoption of MRS pursuant to Order R-38-15 met the criteria for an exogenous event under the PBR Plan. In Appendix A to Order G-202-15, the Commission stated:

The Panel approves for Z-factor treatment the forecast O&M costs of \$0.445 million in 2016 relating to its compliance with the changes to BC's MRS program.

**FBC has provided sufficient evidence and justification to satisfy the Z-factor Criteria in their entirety as relating to these forecast expenditures.**

116. In this Application, FBC has continued to apply the Z-factor treatment for its forecast 2017 costs required for the adoption of MRS pursuant to Order R-38-15. FBC is continuing to track the incremental O&M and capital costs associated with compliance with Order R-38-15 and flowing them through to rates outside of the O&M and capital formulas.

117. In their arguments, interveners were supportive of the continued exogenous factor treatment of the incremental MRS compliance costs, with the exception of ICG. FBC responds to ICG and one comment from CEC below.

118. ICG states that it does not believe that the costs related to the MRS program continue to meet the criteria for exogenous factor treatment.<sup>125</sup> ICG provides no reasoning as to why the MRS costs do not meet the criteria for exogenous factor treatment, except to state

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<sup>125</sup> ICG Argument.

that the MRS costs can be forecast and FBC should be held accountable for variances.<sup>126</sup> ICG's position is inconsistent with the PBR Plan approved by the Commission and must be rejected.

119. The ability to forecast the costs is not one of the criteria for exogenous factor treatment approved by the Commission. The criteria for evaluating whether the impact of an event qualifies for exogenous factor treatment as approved by the Commission, and how the MRS costs meet those criteria, are provided below. For clarity, these are the same reasons put forward by FBC and accepted by the Commission in last year's Annual Review:<sup>127</sup>

- (a) **The costs/savings must be attributable entirely to events outside the control of a prudently operated utility:** The costs are entirely attributed to complying with the changes to BC's MRS program approved by Order R-38-15, which is an event outside the control of FBC. These changes were developed by regulatory bodies in the U.S., assessed for adoption by BC Hydro and then adopted by the BCUC. FBC is legally obligated to comply with the new reliability standards.
- **The costs/savings must be directly related to the exogenous event and clearly outside the base upon which the rates were originally derived:** The costs are directly and solely attributable to complying with the changes to the BC MRS program approved on July 24, 2015. These costs have not been previously incurred and were not known at the time the 2013 base O&M and capital was determined and therefore were not included in the 2013 base O&M and capital used to determine the O&M and capital expense included in the PBR formula.
- **The impact of the event was unforeseen:** The costs to comply with the reliability standards that were approved by Order R- 38-15 could not have been foreseen at the time the 2013 base was set as the new standards were either non-existent or under preliminary development at the time.

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<sup>126</sup> ICG Argument.

<sup>127</sup> Exhibit B-2, Application, pp. 92-93.

- **The costs must be prudently incurred:** FBC will manage its costs to comply with the reliability standards in a prudent manner and the Commission will have the opportunity to review the costs in subsequent annual reviews.
- **The costs/savings related to each exogenous event must exceed the Commission defined materiality threshold:** FBC has updated its forecast of incremental costs associated with complying with Assessment Report No. 8 as described in Sections 6.3.4 and 7.2.2 of the Application. For 2017, FBC forecasts incremental costs of \$1.400 million, which continues to exceed the materiality threshold of \$0.301 million.<sup>128</sup>

120. Nothing has changed that could alter the Commission's determination in Order G-202-15 that the incremental MRS compliance costs satisfy the exogenous factor criteria. FBC submits that its proposed exogenous factor treatment of costs to implement new reliability standards should be approved as filed.

121. The ICG argues in the alternative that the incremental MRS costs should be the subject of a deferral account.<sup>129</sup> The CEC recommends that the Commission approve FBC's requested exogenous factor treatment for MRS costs "with the proviso that actual costs are tracked outside formula and the variance is either returned to or recovered from ratepayers the following year."<sup>130</sup> FBC confirms that the approved treatment under the PBR Plan is that the costs are tracked outside of formula as shown in Table 6-3, and variances from forecast cost are captured in the Flow-through variance account. Thus, as stated on page 40 of the Application, any variances from the 2016 Projected and 2017 Forecast amounts for MRS compliance will be trued up by way of the Flow-through deferral account and returned to, or recovered from, customers in 2018.

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<sup>128</sup> The materiality threshold for FBC has been established at \$0.301 million, as approved by Commission Order G-184-14.

<sup>129</sup> ICG Argument.

<sup>130</sup> CEC Argument, p. 25.



## F. Service Quality Indicators

122. Both 2015 and June 2016 year-to-date SQI results indicate that FBC's overall performance is meeting service quality standards. As discussed on page 102 of the Application, following Commission Order G-44-16, FBC's service quality in 2015 should be the subject of review in this proceeding.<sup>131</sup>

123. In 2015, for the eight SQIs with benchmarks, four performed at or better than the approved benchmarks with three performing better than the threshold and one SQI, the All Injury Frequency Rate (AIFR), performing below the threshold. FBC's AIFR results in 2015 are discussed in section 13.3 of the Application. For the three SQIs that are informational only, performance is consistent with or better than recent years' performance.<sup>132</sup> August 2016 year-to-date performance is similar to 2015 with an improving trend, with seven of the eight SQIs with benchmarks performing at or better than the approved benchmarks and the one remaining within the satisfactory performance range.<sup>133</sup>

124. FBC submits that the SQI results as summarized above, and as discussed in detail in the Application,<sup>134</sup> related IR responses,<sup>135</sup> and workshop presentation<sup>136</sup> demonstrate that FBC met service quality standards in 2015, and is taking steps to improve service quality as demonstrated by the improved results in 2016.

125. The only intervener to raise any issue with FBC's SQI results was BCOAPO. BCOAPO states at paragraph 103 of its argument that FBC's introduction of a call back option will increase customer service and "makes it questionable whether the reported results of the Telephone Abandon Rate will be comparable" with historical results. BCOAPO says this raises the question of whether an alternative measure such as "Time Until a Call Back is Received"

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<sup>131</sup> Exhibit B-2, Application, p. 202.

<sup>132</sup> Exhibit B-2, p. 102.

<sup>133</sup> Exhibit B-11, Workshop Presentation, slide 55.

<sup>134</sup> Exhibit B-2, Application, section 13.

<sup>135</sup> E.g., Exhibit B-3, BCUC IR 1.19 and 1.20.

<sup>136</sup> Exhibit B-11, Workshop Presentation, slides 55 to 66; Transcript, p. 100 ff.

should be introduced. FBC does not agree that any additional measure needs to be introduced into the PBR Plan.

126. The new call back feature does not suggest that the Telephone Abandon Rate is less useful as an informational indicator or will not be comparable with historical results. Ms. Mehrer explained that the call back option still maintains the customer's position in the queue – the customer simply no longer has to wait on hold and receives a call back instead.<sup>137</sup> Given this new feature, FBC expects abandon rates to decrease. Maintaining the Telephone Abandon Rate will allow the Commission to see if this in fact will be the case.

127. FBC submits that if it introduces measures to improve an SQI or information indicator, it would not be reasonable to then change the SQI or informational indicator due to lack of comparability. On the contrary, maintaining the same SQIs and information indicators allows the Commission to compare to historical results and see that service levels are in factor increasing (or decreasing). Changing the SQIs or information measures would result in less comparability over time.

128. In FBC's view, for consistency and comparability over time, it is preferable to maintain the same suite of SQIs and informational indicators for the remainder of PBR.

#### **G. Metering of Demand is Out of Scope**

129. In its argument, ICG argues that FBC should adopt or be directed to adopt a "30 minute demand window" in FBC's Electric Tariff.<sup>138</sup> ICG acknowledges that "the scope of this proceeding does not necessarily include consideration of specific charges under [FBC's] tariff". FBC agrees. The metering of demand under FBC's Electric Tariff is outside the scope of this proceeding. FBC submits that this topic may be more appropriately addressed in a rate design proceeding.

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<sup>137</sup> Transcript, p. 104.

<sup>138</sup> ICG Argument, pp. 3-4.

**PART FOUR: CONCLUSION**

130. FBC submits that based on the evidence in this proceeding, the approvals sought are just and reasonable and should be approved as filed.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

Dated:

November 9, 2016

*[original signed by Christopher Bystrom]*

Christopher Bystrom

Counsel for FortisBC Inc.