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September 28, 2016

British Columbia Municipal Electrical Utilities
c/o Owen Bird Law Corporation
P.O. Box 49130
Three Bentall Centre
2900 – 595 Burrard Street
Vancouver, BC
V7X 1J5

Attention: Mr. Christopher P. Weafer

Dear Mr. Weafer:

**Re: FortisBC Inc. (FBC)
Project No. 3698887**

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

**Response to the British Columbia Municipal Electrical Utilities (BCMEU)
Information Request (IR) No. 1**

On August 8, 2016, FBC filed the Application referenced above. In accordance with Commission Order G-123-16 setting out the Regulatory Timetable for review of the Application, FBC respectfully submits the attached response to BCMEU IR No. 1.

If further information is required, please contact Joyce Martin at 250-368-0319.

Sincerely,

FORTISBC INC.

Original signed:

Diane Roy

Attachments

cc (email only): Commission Secretary
Registered Parties



FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to British Columbia Municipalities Electric Utilities (BCMEU) Information Request (IR) No.1	Page 1

1 **1. Reference: Exhibit B-2, Section 2.3, Table 2-2, Page 12, Line 1**

2 1.1 Please confirm that the 131,633 Average Customers do not include customers
3 that are direct customers of the Wholesale Municipal Utilities.

4
5 **Response:**

6 Confirmed. Table 2-2 includes the direct customers of FBC only.

7



FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to British Columbia Municipalities Electric Utilities (BCMEU) Information Request (IR) No.1	Page 2

1 **2. Reference: Exhibit B-2, Section 3.3, Table 3-1, Page 16, Line 1**

2 2.1 Does the DSM saving of 2 GWh for Wholesale customers include the wholesale
3 residential customers or are the Municipal end use residential customers
4 included in the Residential count of 10 GWh?

5
6 **Response:**

7 The 2 GWh of DSM savings shown as Wholesale in Table 3-1 is for all end-use customers of
8 FBC's Wholesale customers, including end-use residential customers.

9

FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to British Columbia Municipalities Electric Utilities (BCMEU) Information Request (IR) No.1	Page 3

1 **3. Reference: Exhibit B-2, Section 3, Page 25, Lines 2-5**

2 3.1 The BCMEU members have been trending down on our winter peak demand for
3 5 years. It appears that FBC's peak demand estimate is higher than any peak
4 since 2006. Please explain.

5
6 **Response:**

7 The BCMEU member utilities coincident peak represents less than 20% of the Company's peak
8 demand, and as such their load patterns may not be representative of the remainder of the FBC
9 service territory. FBC's peak load forecast is based on a 10 year average of actual winter and
10 summer peaks escalated by the forecast energy load growth for 2017, as explained in Appendix
11 A3, section 1.3.

12
13

14

15 3.1.1 What is FBC doing to reduce peak demand?

16

17 **Response:**

18 The following items have resulted in reductions in FBC's peak demand:

- 19 • Investments in the transmission system, which, although undertaken to improve
20 reliability, result in lower system losses;
- 21 • Demand Side Management initiatives, which, although focused on energy, also affect
22 peak demand; and
- 23 • The residential conservation rate tariff, which also acts to reduce demand on peak.

24 The BC Conservation Potential Review (BC CPR) study currently underway will estimate the
25 remaining energy and demand savings potential of energy-efficiency and conservation
26 measures in FBC's service territory. The BC CPR will also estimate the economics and
27 potential of Demand Response (DR) measures that are specifically intended to reduce peak
28 demand.

29

30

31

32 3.1.2 Is FBC implementing energy management as they have their new AMI
33 infrastructure?



FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to British Columbia Municipalities Electric Utilities (BCMEU) Information Request (IR) No.1	Page 4

1

2 **Response:**

3 FBC intends to provide customers with more detailed consumption information that will allow
4 them to better manage their energy usage through the Customer Information Portal (CIP). Also
5 upon customer request, the Zigbee radio in the AMI meter will be enabled for an optional In-
6 Home Display (IHD) device, or gateway product that can communicate with an application on a
7 customer's smart phone.

8 FBC does not currently intend to implement any demand-response programs using the AMI
9 system to control energy-consuming customer devices.

10

11

12

13 3.1.3 Does FBC use voltage regulators and tap changers at FBC substations
14 to shave percentages off FBC's load consumption thereby leveling
15 there kVA profile?

16

17 **Response:**

18 Although FBC has the ability to reduce the voltage at some distribution substations, this
19 measure is rarely used. This is because planned voltage reductions have in the past resulted in
20 disruption at the operations of some customers who are voltage sensitive. Since it is difficult to
21 predict where these customers are located, FBC limits the use of voltage reductions to avoid the
22 consequent customer power quality issues.

23



FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to British Columbia Municipalities Electric Utilities (BCMEU) Information Request (IR) No.1	Page 5

1 **4. Reference: Exhibit B-2, Section 3.6, Page 25, Line 9, Revenue Forecast**

2 4.1 What impact will the projected revenue shortfall of approx. \$10 million in 2016
3 have on 2017 revenue requirements? Has FBC identified offsetting expenses
4 that mitigate the reduced revenue projection?

5
6 **Response:**

7 The lower than forecast sales load, which resulted in the \$10.267 million revenue shortfall
8 projected in 2016, also contributed to offsetting power purchase expense, which are projected to
9 be \$5.468 million lower than approved. The net amount (revenue less power purchase
10 expense) of \$4.799 million will be recovered in 2017 rates by way of the Flow-through deferral
11 account. This net amount increases 2017 rates by approximately 1.4 percent.

12



FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to British Columbia Municipalities Electric Utilities (BCMEU) Information Request (IR) No.1	Page 6

1 **5. Reference: Exhibit B-2, Section 4, Page 29, Lines 20-23**

2 5.1 FBC states that they will be purchasing less power due to the milder weather
3 patterns of recent (warmer winters). This appears to contradict the previous point
4 which highlighted the forecasted demand to be higher. Please discuss.

5
6 **Response:**

7 There is no contradiction. As explained below, one point compares the 2016 Approved Power
8 Purchase Expense to 2016 Projected, whereas the other point compares the 2017 Forecast
9 gross load to 2016 Approved.

10 Section 4.5 of the Application, which is referenced by the question, compares the 2016
11 Approved to 2016 Projected Power Purchase Expense. Table 4-2 shows the 2016 Projected
12 gross load to be 114 GWh lower than 2016 Approved. The 2016 Projected values include actual
13 data through May 31, 2016. The period January through May 2016 was warmer than normal,
14 resulting in FBC purchasing less power to meet load during those months.

15 Section 4.1 of the Application shows that the 2017 Forecast gross load is 19 GWh higher than
16 the 2016 Approved gross load. The impact of the warmer weather and reduced gross load in
17 the beginning of 2016 is not reflected in the difference between the 2017 Forecast and 2016
18 Approved Power Purchase Expense, since both are full-year load forecasts.

19

FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to British Columbia Municipalities Electric Utilities (BCMEU) Information Request (IR) No.1	Page 7

1 **6. Reference: Exhibit B-2, Section 7.3, Page 45, Line 22, \$8.228 Million for**
 2 **Ruckles Substation**

3 6.1 By way of background, Nelson Hydro recently built a 35 MVA station for a bit less
 4 than \$4 million (also with no land purchase). Please provide a more detailed cost
 5 estimate of the Ruckles Substation so that the costs can be better understood.
 6

7 **Response:**

8 FBC is unable to comment on the referenced Nelson Hydro substation project as it does not
 9 have the information needed to compare the two projects. However, there are numerous factors
 10 which impact the cost of a project, including, but not limited to:

- 11 • High voltage equipment selection;
- 12 • Configuration of buswork;
- 13 • Power transformer size and specification of auxiliary equipment;
- 14 • Number of distribution feeders;
- 15 • The existing grade of the station;
- 16 • The existing alignment of transmission and distribution facilities;
- 17 • Energized construction versus de-energized construction; and
- 18 • Constructability and access issues.

19 FBC provided a summary of the estimated project capital costs for the Ruckles Substation
 20 Rebuild Project (Table 4-1, Appendix C, Section 4.4, Page 22, Line 14). FBC has provided a
 21 modified table below to also include the scope of work included in each project component.

22 **Table 4-1: Summary of Estimated Project Capital Costs (\$000s)**

Project Component	2016 \$	As- Spent \$	Scope Items
Line Work	231	241	Includes: <ul style="list-style-type: none"> • Realignment of existing transmission structures; and • Realignment of existing distribution egresses.
Civil & Site	1,644	1,688	Includes: <ul style="list-style-type: none"> • Site preparation; • Foundations; • Ground grid modifications; and • Trenching and conduit install.

FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to British Columbia Municipalities Electric Utilities (BCMEU) Information Request (IR) No.1	Page 8

Project Component	2016 \$	As-Spent \$	Scope Items
Buildings	184	191	Includes: <ul style="list-style-type: none"> • New control building; and • AC/DC system modifications.
Structures & Buswork	410	427	Includes: <ul style="list-style-type: none"> • Installation of buswork and supporting structures.
Station Equipment & Apparatus	2,503	2,602	Includes: <ul style="list-style-type: none"> • Installation of new power transformer; • Installation of padmount stepdown transformers; • Installation of new breakers; and • Installation of various disconnects and hook stick switches.
Communications & SCADA	30	32	Includes: <ul style="list-style-type: none"> • Installation of various RTU/SCADA/Communication relay modules.
Protection, Control & Metering	260	270	Includes: <ul style="list-style-type: none"> • Installation of protection and control relay modules; and • Installation of metering modules.
Design	611	627	Includes: <ul style="list-style-type: none"> • Engineering, design and drafting; and • Programming of relay settings.
Commissioning	127	132	Includes: <ul style="list-style-type: none"> • Engineering and field labour required to commission new equipment.
Project Management	527	545	Includes: <ul style="list-style-type: none"> • Project and Construction Management.
Subtotal – Construction	6,527	6,754	
Cost of Removal	289	301	Includes: <ul style="list-style-type: none"> • Removal of existing control building; • Removal of existing structures and buswork; • Relocation of transformer RUC T1 to storage; • Removal and disposal of transformer RUC T2; and • Removal and disposal of existing switchgear.
Project Contingency	779	806	
Subtotal – Construction & Removal	7,595	7,860	
AFUDC	n/a	428	
TOTAL PROJECT COST	7,595	8,288	



FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to British Columbia Municipalities Electric Utilities (BCMEU) Information Request (IR) No.1	Page 9

1 **7. Reference: Exhibit B-2, Section 8.3.3, Page 51, Line 5**

2 7.1 Please provide a more detailed explanation on FBC's Short Term Interest Rate
3 increasing from 2.49 to 7.55%. What is the \$ impact of a change in the FBC
4 Short Term Interest rate from 2.49 (2016 projected) to 7.55% (2017 forecast).
5

6 **Response:**

7 The increase in the short-term interest rate from 2016 projected to 2017 forecast is primarily due
8 to the portion of the short-term interest rate attributable to rates calculated for recovery of
9 standby fees and financing fees. Please refer to the response to BCOAPO IR 1.17.1 for a
10 detailed explanation of the increase in 2017 standby fee rates and to BCOAPO IR 1.17.2 for a
11 detailed explanation of the increase in 2017 financing fees.

12 While the Forecast 2017 short-term interest rate of 7.55% is higher than the Projected 2016
13 short-term interest rate of 2.49%, the Forecast 2017 amount of short-term interest of \$0.835
14 million¹ is actually \$1.200 million lower than the Projected 2016 short term interest of \$2.035
15 million. This is because the rate is calculated as a percentage of the underlying debt, and the
16 short-term debt level is lower in 2017 than in 2016, primarily due to a \$100 million debt issuance
17 forecast to take place in the fourth quarter of 2016, the proceeds of which will be used to repay
18 draws on the short-term debt.

19

¹ Section 11, Schedule 26 Line 2 Column 7.



FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to British Columbia Municipalities Electric Utilities (BCMEU) Information Request (IR) No.1	Page 10

1 **8. Reference: Exhibit B-2, Section 13, Page 112, Line 27-29, Saidi**

2 8.1 FBC takes the municipalities (BCMEU) as one meter each. Nelson represents
3 nearly 11,000 meters. Would FBC agree that SAIDI is not an ideal representation
4 of BC Residences affected by Fortis outages?
5

6 **Response:**

7 The method that FBC uses to calculate SAIDI (by only including direct customers of the utility) is
8 consistent with industry practice. It is also consistent with the approach taken by BC Hydro for
9 any outages that have an impact on FBC customers, which are measured by FBC as a “Loss of
10 Supply” outage and are included in FBC’s overall SAIDI results. As such, FBC considers the
11 calculated SAIDI results to be a valid and representative indicator of the Company’s reliability of
12 service.

13



FortisBC Inc. (FBC or the Company) Multi-Year Performance Based Ratemaking Plan for 2014 through 2019 Annual Review for 2017 Rates (the Application)	Submission Date: September 28, 2016
Response to British Columbia Municipalities Electric Utilities (BCMEU) Information Request (IR) No.1	Page 11

1 **9. Reference: Exhibit B-2, Appendix C, Ruckles Substation Rebuild, Section 4.1,**
2 **Page 20, Line 7**

3 9.1 If in the future the City of Grand Forks no longer requires 4.3 kV due to its effort
4 to complete a voltage conversion 13 kV how will the unused capacity of 5 MVA
5 be dispensed with?
6

7 **Response:**

8 If in the future the City of Grand Forks no longer requires the 4.3 kV source, the stepdown
9 transformer would remain onsite as a spare for the remaining stepdown unit to provide backup
10 service for the industrial sawmill customer during forced or maintenance outages.

11