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September 28, 2017

B.C. Sustainable Energy Association
c/o William J. Andrews, Barrister & Solicitor
1958 Parkside Lane
North Vancouver, B.C.
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Attention: Mr. William J. Andrews

Dear Mr. Andrews:

Re: FortisBC Inc. (FBC)

Project No. 3698875

Application for Reconsideration and Variance of Order G-199-16 FBC Net Metering Program Tariff Update Decision ~ Phase 2 (the Application)

Response to the B.C. Sustainable Energy Association and Sierra Club of British Columbia (BCSEA) Information Request (IR) No. 1

On March 17, 2017, FBC filed the Application referenced above. In accordance with the British Columbia Utilities Commission Order G-127-17 setting out the Regulatory Timetable for the review of the Application, FBC respectfully submits the attached response to BCSEA IR No. 1.

If further information is required, please contact Corey Sinclair, Manager, Regulatory Affairs at (250) 469-8038.

Sincerely,

FORTISBC INC.

Original signed:

Diane Roy

Attachments

cc (email only): Commission Secretary
Registered Parties

1.0 Topic: Dollar Bank Mechanism

Reference: Original Proceeding, Exhibit B-1, 3. Background to the Net Metering Program

In the original application, FBC describes the existing RS95 Dollar Bank Mechanism as follows:

"The current process for billing under the Program is described below.

In each billing period [Footnote: A billing period may be either approximately 30 days or 60 days depending on rate schedule.], unless a customer exactly matches generation to consumption, the customer will either be a net consumer of electricity or the customer will have Net Excess Generation (NEG). If, in any billing period, the customer is a net consumer of power from FBC, net billed amounts are calculated according to the applicable retail rate contained in the tariff schedule.

If, in any billing period, the customer has NEG, the net kWh delivered to FBC is valued at the applicable retail rate and a billing credit, in dollars, is included in the customer's account balance but not paid out at that time. [Next step is addressed in the IR below.] In the event that there is a net credit balance on the customer's account at the end of a calendar year, the credit may be purchased by the Company (paid to the customer). Per the tariff, if the amounts are not large, they will be carried forward and included in the billing calculation for the next period at the discretion of the Company." [Explanatory text added and underlined.]

1.1 Please comment on the following observation:
The description of the dollar credit mechanism in the original application is not wrong but it skips the main part of the mechanism. A dollar credit for net excess generation in a billing period is applied as a credit to reduce the balance on the bill for the next billing period. The main mechanism is that a dollar credit arising from net excess generation in one billing period is not "paid out." Rather, it is applied as a dollar credit in the next bill.

Response:

The observation is essentially accurate. However, the account balance under the dollar credit mechanism is a running total and credits are carried forward on a continual basis and may persist past the next billing period.

1.2 Please comment on the following observation:

It is only in rare circumstances that there is "a net credit balance on the customer's account at the end of a calendar year." This is because at present the vast majority of NM customers have a generation facility that is not big enough in relation to their own consumption to produce a net credit balance due to net metering over the course of a year.

Response:

A credit balance on a net metering (NM) customer account at the end of a calendar year due solely to NM billing is uncommon for the reason stated.

2.0 Topic: Valuation of Net Annual Surplus in Dollar Bank v. kWh Bank

Reference: Decision and Order G-199-17

2.1 Does FBC agree that under both a Dollar Bank mechanism and a kWh Bank mechanism, where a NM customer's generation facility is sufficiently large in relation to the customer's own consumption there could be a net surplus at the end of a year, in dollars or in kWhs respectively?

Response:

FBC agrees.

2.2 For clarity, does FBC agree that the difference between the Dollar Bank and kWh Bank mechanisms means that there is a subtle difference in whether a given pattern of self-generation and consumption will result in a net annual surplus (whether in dollars or kWhs) depending on which mechanism is used?

Response:

FBC agrees that in most scenarios, a generation and consumption pattern that produces a year-end kWh Bank surplus will also produce a credit account balance under the current billing practice.

2.3 Given that the Commission determined in Order G-199-16 that "new customers will not be accepted into the Net Metering Program if their proposed generating capacity exceeds their anticipated annual consumption," does FBC agree that, regardless of whether a Dollar Bank or a kWh Bank is selected, it will be rare for there to be a net surplus (whether in dollars or in kWhs) at the end of a year?

Response:

FBC agrees, other than existing customers and the scenario described in BCSEA IR 1.2.3.1.

2.3.1 Setting aside the few existing NM customers with sufficiently large generation facilities to produce an annual net credit, does FBC agree that one way in which it could come about that a new NM customer could produce an annual net credit (under a Dollar Bank) or an annual surplus of banked kWhs (under a kWh Bank) is where the customer's generation facility met the 'not to exceed anticipated annual consumption' criterion when the customer entered the NM Program but the customer's consumption later dropped for an unanticipated reason?

Response:

Yes. If generation was sized for a certain level of anticipated annual consumption, and actual consumption was less than anticipated, then annual net excess generation (NEG) could result (provided that generation levels were as anticipated).

2.4 Does FBC agree that one factor relevant to the comparison of a Dollar Bank mechanism and a kWh Bank mechanism is that the implicit value of annual net excess generation is determined by the customer's retail rate in a Dollar Bank mechanism whereas in a kWh Bank mechanism the price the utility will pay to the customer for annual net excess generation has to be defined expressly?

Response:

The Company agrees annual NEG is valued expressly with the kWh bank mechanism. Although this flexibility is a factor by which to compare NEG compensation mechanisms, it will not be relevant to most customers participating in the program. Please also refer to the response to BCUC IR 1.5.1, which indicates that annual NEG could be valued using retail rates under a kWh Bank, although it is more administratively burdensome to do so under the tiered RCR.

2.4.1 Would FBC agree that this particular factor applies in only a very small number of cases and is therefore relatively minor in comparison with the other factors relevant to the merits of a Dollar Bank compared to a kWh Bank?

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2 **Response:**

3 FBC agrees.

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3.0 Topic: Dollar Bank v kWh Bank

Reference: Exhibit B-1, Reconsideration Application; Exhibit B-3, Phase One Reply

Preamble: FBC's Reconsideration Application and Phase One Reply submission focus on the alleged errors in the Original Decision rather than the merits of a kWh Bank compared to a Dollar Bank. FBC's September 9, 2016 final argument in the original proceeding addresses the merits of a kWh Bank compared to a Dollar Bank only in the context of the treatment of annual net excess generation.

3.1 Please confirm, or otherwise explain, that the following factors favour replacement of the existing Dollar Bank mechanism with a kWh Bank mechanism:

3.1.1 A kWh Bank is more consistent with the "net metering" concept of a billing arrangement that allows a customer who generates some or all of his, her or its own electricity to, in effect, use that electricity at times other than when it is generated. Net metering facilitates a swap of electricity, not money, between the customer and utility. Net metering is not a feed-in tariff.

Response:

FBC agrees that a kWh bank is more consistent with the concept of net metering as described in the question for the reasons stated. The main reasons for implementing a kWh bank are as articulated in the NM Tariff Update Application and this Reconsideration Application.

3.1.2 A kWh Bank has jurisdictional support. It is used for net metering programs run by BC Hydro and by other surveyed electrical utilities across Canada.

Response:

Confirmed.

3.1.3 A kWh Bank interacts with a two-tier energy rate more logically than does a Dollar Bank mechanism. A kWh Bank treats net excess generation energy in one billing period as energy in the next billing period. The Dollar Bank mechanism can put a different implicit financial value on a kWh of net excess generation energy depending on whether it applies to Step 1 or Step 2 consumption.

Response:

Confirmed.

3.1.4 Replacing the Dollar Bank with a kWh Bank would have non-existent or positive bill impacts for most NM participants. For a small number of NM participants with relatively high self-generation there would be a negative bill impact.

Response:

Any negative bill impact from a kWh bank as compared to a Dollar Bank would result only from how annual NEG is valued. Negative bill impacts for customers with annual NEG are not inherent to the kWh Bank mechanism.

4.0 Topic: Cost Recovery and Dollar Bank v kWh Bank

Reference: Exhibit B-4, pdf p.5. Further Evidence, Excerpts from FBC 2016 LTERP proceeding, FBC Response to BCUC IR 1.11.4

FBC provides a lengthy quote from the FBC 2016 LTERP proceeding. The quote contains the Commission's preamble to IR 11.4, the question itself, and FBC's response. The context is "distributed generation" (DG) as a potential resource for consideration in long-term planning and FBC's expressed "cost recovery" concern about how the utility will recover its fixed costs in the event of distributed generation situation. FBC states that for residential customers the fixed Customer Charge collects less than 50% of the utility's fixed costs and that the remainder of the utility's fixed costs are collected through the variable energy charge (cents per kWh).

4.1 Please confirm, or otherwise explain, that in FBC's situation the DG "cost recovery" challenge is primarily a matter of intra-rate class fairness or acceptability between customers, i.e., whether and how to recover from DG customers their 'fair share' of the fixed costs of serving them rather than having some of the fixed costs of serving DG customer paid for by non-DG customers.

Response:

Confirmed.

The fairness and equity challenge raised by the existence of NM customers is that the potential exists for these customers to remain connected to the FBC system, which is paid for through the rates of all customers, and to utilize the system both as a source of back-up supply and as a load-balancing resource for intermittent generation, but to make a reduced, zero, or even negative contribution.

Since under the current FBC rate structure, a large portion of the fixed costs allocated to the residential class is collected through the energy charge, all customers make a varying contribution to fixed costs depending on their consumption. However, at a minimum, customers without generation will have an annual bill equal to the Customer Charge times the number of billing periods for which they take service in a year.

NM customers have the potential to make less than the minimum contribution made by other customers and may even make a negative contribution. In these cases, other customers cover the costs. Setting the compensation rate at a reasonable price will mitigate, but not eliminate this situation.

4.2 Please confirm, or otherwise explain, that when FBC states that for the residential customer class "the fixed charges in the current rate structures do not adequately recover the cost of connection to the distribution system," this means that the fixed Customer Charge does not fully cover the fixed costs of service in terms of a cost of service analysis, but that FBC is not 'out of pocket,' because it recovers through the variable charge (per kWh) any fixed costs not recovered through the Customer Charge.

Response:

Confirmed. The issue is not related to a revenue deficiency for FBC, it is only an issue of fairness between customers.

Citing the Net Metering Program as an example of distributed generation, FBC notes two challenges:

- NM customers "pay lower variable consumption charges, and, since some of the Company's fixed costs are collected through the variable (energy and demand) charges, fixed charges are under-recovered."
- "In the case of net metered customers, the compensation for net excess generation during a billing period may reduce the contribution toward fixed costs to zero or negative." [underline added]

4.3 Please confirm, or otherwise explain, that the first bulleted point is not relevant to whether the Dollar Bank should be replaced by a kWh Bank, because under both mechanisms the NM participant in effect pays less for variable consumption (or pays for less variable consumption) than he, she or it would pay in the absence of the NM Program (even assuming the customer maintains its own generation).

Response:

Confirmed.

4.4 Please confirm, or otherwise explain, that the second bulleted point (underlined) is relevant to whether the Dollar Bank should be replaced by a kWh Bank, because under the Dollar Bank mechanism the very small number of NM participants with sufficiently high self-generation in relation to consumption in a given billing period or annually can offset the Customer Charge in addition to the energy charge (kWh) on their bill, whereas under a kWh Bank mechanism even the NM participants with very high self-generation still pay the Customer Charge.

Response:

The discussion referenced in the preamble above which is taken from the Company's response to BCUC IR 1.11.4 in the LTERP process, was general in nature and did not draw a distinction between the NEG compensation method that is used. The observation, that NM customers may reduce their contribution to fixed costs, applies in both cases although the effect can be lessened with a kWh Bank by using an appropriate (consistent with independent power producers) compensation rate for annual NEG.

5.0 Topic: Customer Charge and Dollar Bank v kWh Bank

Reference: Exhibit B-4, pdf p.5. Further Evidence, Excerpts from FBC 2016 LTERP proceeding, FBC Response to BCUC IR 1.70.1

FBC responds to the Commission's question about how fairness considerations in relation to the Residential Inclining Block (RIB) rate (or FBC's Residential Conservation Rate (RCR)) apply to distributed generation in general and the Net Metering Program in particular:

"... Rates are designed such that all customers within a given rate class make a similar contribution to the fixed costs of the utility. For residential customers, this contribution is collected through the Customer Charge and is the same for all customers charged under a given rate. Although the Customer Charge does not collect 100 percent of the costs as determined during the Cost of Service Analysis (COSA), it is set at the same level for all customers.

Regardless of the relative impact of the RIB rate on individual customers, which is driven by the consumption habits of the customer and the variable portions of the rate, all customers make, at a minimum, the standard contribution to the fixed charges.

The situation with DG customers is different. While the RIB rate is, as described in the reference, capable of producing an, "…incidental result flowing from a proper rate based upon the cost of service", the current application of the NEG provisions in the NM tariff has no relationship to a cost-based rate designed for that purpose. Rather, the compensation for NEG each billing period at the retail rate instead of the use of a kWh Bank enables customers with small-scale generation, such as those in the NM Program, to avoid even the minimum contribution to fixed charges if their bill is less than the Customer Charge. A customer that reduces their bill to zero, or less, is still using the FBC system, and still driving a system cost, which in the absence of a sufficient bill amount will fall to the account of the remaining customers. FBC is seeking the use of a kWh Bank and an appropriate compensation rate through its Application for Reconsideration of Order G-199-16, in part, to mitigate this situation." [underline added]

5.1 Please confirm that when FBC says "The situation with DG customers is different [than for RCR customers]" it is referring to the existing Dollar Bank mechanism in the NM Program.

Response:

Not confirmed. Although the reference explicitly mentions the kWh Bank, the ability to reduce a customer's annual bill to zero (or less) exists with both the Dollar Bank and kWh Bank mechanisms if annual NEG exists. Therefore, it is the annual NEG compensation rate (which is

1 by default at “retail” with a Dollar Bank) and the amount of the Customer Charge which
2 determines how revenue responsibility is shifted to non-NM customers.

3

6.0 Topic: Bill Impact

Reference: Exhibit B-4, Further Evidence, Part 2 – Additional Billing Analysis

In its Additional Billing Analysis, FBC analyzes the combined impact of both replacing the Dollar Bank with a kWh Bank and setting the price that FBC would pay for annual net excess generation (if there is a kWh Bank) to be equivalent to the BC Hydro RS 3808 rate.

6.1 FBC says that 26 of the 35 customers included in the analysis would be unaffected, five would be better off and four would be worse off with a kWh Bank and the compensation rate for annual net excess generation being set at RS 3808. How would those numbers be affected if the compensation rate for annual NEG was (a) the Step 2 residential rate, (b) the average residential rate (e.g., the farm use residential rate), or (c) the Tier 1 residential rate?

Response:

Adjusting the compensation rate for annual unused NEG as requested would have the following impacts:

a) 26 customers unaffected and 9 better off;
b) 26 customers unaffected, 7 better off and 2 worse off; and
c) 27 customers unaffected, 5 better off and 3 worse off.

6.2 How many of the 35 customers included in the analysis are residential customers and how many are commercial customers?

Response:

The analysis only included residential customers.

7.0 Topic: Compensation rate for annual net excess generation with kWh Bank

Reference: Exhibit B-4, Further Evidence, Part 2 – Additional Billing Analysis

7.1 Please confirm, or otherwise explain, that the Commission could approve replacement of the Dollar Bank with a kWh Bank as proposed by FBC, and also approve a price for annual net excess generation that is different than the price FBC proposes.

Response:

Confirmed. The Commission can approve a rate other than the avoided cost rate proposed by FBC.

8.0 Topic: Removal of non-conforming NM participants

Reference: Exhibit B-6, p.4

Decision and Order G-199-17 states that "RS 95 customers cannot be removed from the Net Metering Program solely on the basis of producing annual Net Excess Generation." FBC describes the issue as "whether Rate Schedule 95, properly interpreted, allows for customers to be removed from FBC's net metering program for producing consistent annual net excess generation."

8.1 In FBC's view, if RS 95, properly interpreted, does allow for customers to be removed from FBC's net metering program for producing consistent annual net excess generation does the Commission have authority to order that RS 95 customers cannot be removed from the Net Metering Program solely on the basis of producing annual Net Excess Generation?

Response:

Please refer to the response to CEC IR 1.7.1.

8.2 Given that the Commission determined in Order G-199-16 that "new customers will not be accepted into the Net Metering Program if their proposed generating capacity exceeds their anticipated annual consumption," and if, hypothetically, the Commission approved replacing the Dollar Bank with a kWh Bank and approved a compensation rate for annual net excess generation, please explain why in FBC's view it would be necessary or desirable to remove RS customers from the NM Program solely on the basis of producing annual Net Excess Generation.

Response:

FBC does not view the removal of a customer from RS 95 as desirable. The degree to which doing so would be necessary would be influenced by the particular compensation rate approved by the Commission – which the question is not specific in identifying. Please refer to the response to BCUC IR 1.3.1 for a discussion of FBC's perspective on the principled importance of maintaining the integrity of the eligibility criteria of its rate schedules.

8.3 Given that the Commission determined in Order G-199-16 that "new customers will not be accepted into the Net Metering Program if their proposed generating capacity exceeds their anticipated annual consumption," would FBC agree that the treatment of existing NM participants who produce consistent annual net excess generation is a transitional issue?

Response:

Whether or not this is viewed as a transitional issue is not relevant to the request before the Commission. The Commission has confirmed that the practice of limiting the size of NM systems to an amount approximating annual consumption is consistent with the original intent of the NM Program. The Commission has also directed that current NM customers that may not be operating within the parameters of the NM Program cannot be removed from it. This determination, with which the Company does not agree, will persist for all current customers unless Order G-199-16 is varied as set out in paragraph 2(a) of the Reconsideration Application.

8.3.1 If so, in FBC's view, what are the options for a transition mechanism short of removal from the NM Program?

Response:

Within the confines of the Electric Tariff as it is currently approved, a customer removed from the NM Program would be indistinguishable from a customer that had installed behind-the-meter generation and not joined the NM Program at all, and would be billed in a manner similar to all other residential customers. That is, the Company would bill from the reading taken from the Delivered (net consumption) energy register of the meter. Under the current billing practice for non-NM customers, the Received (net generation) energy register is not used, and there would be no compensation for NEG during a billing period. Under the Company's proposed changes to the NM Program, such customers would not have (or require) a kWh Bank and would therefore not receive credit or compensation for any unused annual NEG. The maximum benefit for these customers is to offset 100% of their consumption in a billing period.

FBC continues to believe that the prospect of being removed from the NM Program, particularly for those customers with an appropriately sized NM system, is small. However, a customer with generation that does not comply with the intent of the NM Program, and generates persistent NEG beyond that deemed reasonable in consideration of the discussion provided in the response to BCUC IR 1.3.1, should not remain in the NM Program.

This does not mean however that the net energy delivered to FBC during a billing period is without value.

One option that FBC has considered for those customers that are removed from the NM Program, would be to offer similar compensation for unscheduled deliveries of energy (the net generation measured in the Received register) to the FBC system on a monthly basis that it provides to other independent power producers. These parties receive the lower of the average Mid-C rate less 2 mils or the BC Hydro 3808 rate. However, for simplicity, customers removed from the NM Program would receive the 3808 rate. This arrangement could be facilitated by developing a simple pro-forma Energy Purchase Agreement. This arrangement also requires manual billing. This proposal would provide a level of equity for self-generators under the FBC proposals for its NM Program, including the 3808-based compensation rate.

Other options that could be explored would depend on the outcome of the reconsideration decision.