

REQUESTOR NAME: **BC Sustainable Energy Association and Sierra Club BC**

INFORMATION REQUEST ROUND NO: 1

TO: **FortisBC**

DATE: **June 15, 2016**

PROJECT NO: **3698875**

APPLICATION NAME: **FortisBC Inc. Net Metering Program Tariff Update Application**

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**1.0 Topic: Net metering program background**  
**Reference: Exhibit B-1, Application, p.3**

“Key features of the Program currently are that it: ...

\* Operates in parallel with the Company's transmission or distribution facilities”

1.1 What does the quoted phrase mean?

**2.0 Topic:**  
**Reference: Exhibit B-1, Application, p.4**

“As of March 31, 2016, FBC had 86 customers enrolled in the Program, 22 of which are served on Commercial rate schedules with the balance served on a Residential Rate. As not all customers have been on the program for a full year, the Company cannot determine with certainty the number of customers that will have a positive NEG balance after a 12 month period however a review of the accounts suggests that 6-8 Program participants may be in this position.” [underline added]

2.1 What is the nameplate capacity of the generation facilities operated by the 6-8 program participants who will have a positive NEG balance after a 12 month period?

2.2 What is the estimated amount of positive NEG (i.e., in kWh) for the 6-8 program participants who will have a positive NEG balance after a 12 month period? What is the dollar amount? What is the effective average price?

**3.0 Topic: Program intention**  
**Reference: Exhibit B-1, Application**

“The Program was designed with the intent that a customer's generation should be sized to meet no more than its electricity consumption.”

3.1 Does FortisBC agree that a customer considering installing generation for net metering could reasonably interpret this statement to mean that the generation would be consistent with the program intention if it is sized to meet the customer's daily peak load? If not, why not?

“Put another way, the generation capability should be capped at the approximate amount of electricity used annually by the home or business that is served under one of the eligible rates.” [underline added]

3.2 Please confirm, or otherwise explain, that the FortisBC net metering program does have a generator size cap and the cap is 50 kW.

“The Company is not proposing to change the treatment of NEG with respect to the incidental amount of NEG that the program was originally intended to accommodate. Rather, the Company is seeking to clarify the primary purpose of the Program as it has always existed. That is, installed generation capacity should not be in excess of the customer’s annual requirements.” [underline added]

- 3.3 Please confirm, or otherwise explain, that the history of the program could also support an interpretation the intention was that installed generation capacity should not be (or would not be) in excess of the customer’s daily peak requirements.

FortisBC quotes its 2009 Net Metering Application: “A successful Net Metering Program will promote distributed renewable generation, and allow customers to take responsibility for their own power production, and to reduce their environmental impact.” [p.6, underline in the original]

FortisBC further quotes its 2009 Net Metering Application: “It is the overriding intent of the program that customers gain the ability to offset their own consumption with a clean and renewable resource. It is not the intent of the program to provide a means for larger scale Independent Power Producers (“IPP”) to bring their output to the market.” [p.6, underline in the original]

- 3.4 Please confirm, or otherwise explain, that a customer who wants to take responsibility for their own power production and to offset their own consumption with a clean and renewable resource could reasonably choose to install generation sized to meet their daily peak requirements.

FortisBC further quotes its 2009 Net Metering Application: “The subject of the compensation for NEG tends to garner an amount of attention that is not commensurate with its overall impact on a Net Metering Program. Given that a Customer-Generator must comply with the Program intent that generation is intended only to offset consumption, the likely magnitude of any NEG should be small.” [p.6, underline in the original]

- 3.5 Please provide an estimate based on reasonable assumptions of the magnitude of the annual net energy generation of a typical RCR customer and a typical Commercial customer who (a) had a generation unit sized to meet the customer’s daily peak requirements and (b) had a generation unit with 50 kW nameplate capacity.

#### **4.0 Topic: Distributed generation Reference: Exhibit B-1, Application**

“For parties that wish to connect generation in excess of the size allowable under the Program, FBC permits the interconnection of customer-owned generation with capacities of 50 kW and greater utilizing existing interconnection standards, and will typically compensate for the power delivered by such installations at the same rate proposed for net-metering NEG. FBC does not therefor have any capacity related gaps in opportunities for self-generators to connect to the FBC system.” [pp.6-7, [underline added]

- 4.1 Please confirm, or otherwise explain, that for FBC not to have any capacity related gaps in opportunities for self-generators to connect to the FBC system it is necessary the net metering customers with generation up to 50 kW be allowed to sell self-generated power to FBC.
- 4.2 What plans does FBC have for supporting small distributed renewable generation as part of its supply portfolio?

**5.0 Topic: Program criteria**  
**Reference: Exhibit B-1, Application, p.8**

“The changes required to RS 95 are minimal and are intended to clarify that the Program does not allow a customer to systematically generate a surplus. An insertion is proposed to the DEFINITIONS as follows,

**“Net Metered System** - A facility for the production of electric energy that: e) is intended only to offset part or all of the Customer-Generator’s requirements for electricity on an annual basis. The program is not intended for customers who generate electricity in excess of their annual requirements.

In addition, the Eligibility criteria are updated in a similar manner.

ELIGIBILITY: To be eligible to participate in the Net Metering Program, customers must generate a portion or all of their own retail electricity requirements using a renewable energy source. The generation equipment must be located on the customer’s premises, service only the customer’s premises and must be intended only to offset a portion or all of the customer’s requirements for electricity on an annual basis. The program is not intended for customers who generate electricity in excess of their annual requirements. [underline in the original]

- 5.1 Please confirm, or otherwise explain, that there are two main elements to this aspect of the application:
  - 5.1.1 that generator size in relation to energy consumption is introduced as a criterion for net metering program eligibility in addition to the 50 kW cap, and
  - 5.1.2 that the meaning of ‘meeting a portion or all of a customer’s requirements for electricity’ is changed from not specifying if this is on a daily peak basis or an annual energy basis to defining it as being on an annual energy basis.
- 5.2 The proposed language states that “The program is not intended for customers who generate electricity in excess of their annual requirements.” Does this wording exceed FBC’s intention? For example, FBC says that some 6-8 program participants will likely have positive annual net energy generation [p.4]. Is it FBC’s intention that such customers would not be allowed to participate in the net metering program at all?

- 5.3 Please confirm, or otherwise explain, that these proposed changes are not “minimal” to existing or potential net metering customers who want to offset a portion or all of their electricity requirements on a daily peak basis.

**6.0 Topic: Size of generation**  
**Reference: Exhibit B-1, Application, p.10**

“It is recognized that if the intent of the program is adhered to, and customers enrolled in the Program have generation sized only to meet the approximate load of the premises, the compensation rate will have only a minor financial impact to other customers since any amount of NEG should be small.”

- 6.1 What is FBC’s definition of “generation sized only to meet the approximate load of the premises”?
- 6.2 Is “the approximate load of the premises” defined on a daily peak energy basis, a monthly peak energy basis, a billing period peak energy basis, an annual energy basis, a peak annual energy basis (over what number of years?), or some other basis?
- 6.3 Is “the approximate load of the premises” defined on a non-weather normalized basis, or a weather normalized basis?
- 6.4 Please confirm, or otherwise explain, that the amount and timing of a customer’s consumption may vary considerably between one year and another depending of factors such as the number of persons living in the premises, temporary absence from the premises, the addition or removal of electricity consuming devices, energy efficiency measures, and so on.
- 6.5 How does FBC propose that “generation sized only to meet the approximate load of the premises” would be implemented in light of the potential variation in customer load from one year to another?

**7.0 Topic: Proposed program changes**  
**Reference: Exhibit B-1, Application, Section 5.2 Proposed Program Changes, p.10**

“As a solution, FBC is proposing two changes to the Program. The first is to adopt an NEG carry-forward methodology consistent with that used by BC Hydro and other utilities surveyed across Canada. That is, the use of a kWh bank that alternately carries NEG forward to offset consumption in a future billing period, or applies previously accumulated NEG in a billing period when net consumption exceeds net generation. The second change is, in those situations where a customer under RS95 has a balance in its kWh bank at March 31<sup>11</sup>, those kW hours will be purchased by the Company at the BC Hydro RS 3808 Tranche 1 rate.” [Exhibit B-1, page 10, underline added]

- 7.1 To summarize, please confirm, or otherwise explain, that FBC is proposing two changes to the net metering program:

- 7.1.1 FBC proposes a change from a dollar credit to a kWh credit for net excess generation within a billing period.
- 7.1.2 FBC is proposes a change from annual excess energy being valued at the customer's own energy rate it would be valued at a rate equal to the FBC's price for Tier 1 energy from BC Hydro under the Power Purchase Agreement between FBC and BC Hydro (RS 3808).

**8.0 Topic: Bill Calculation Methodology**  
**Reference: Exhibit B-1, Application, Section 6, Changes to Bill Calculation Methodology; Application Appendix B Discussion of Alternative Billing Methodologies; Exhibit C6-1; Exhibit C7-1**

Some FBC net metering customers on the RIB rate have mentioned an issue regarding bill calculation apparently involving the determination of "net" excess generation within a billing period and the relationship to the threshold between Tier 1 and Tier 2.

Also, FBC identifies a net metering bill calculation issue regarding the RCR rate. FBC states: "With the introduction of the RCR, it is possible to treat the net kWh produced or received by the customer in two distinct ways, each of which could represent a conceivable interpretation of the existing Tariff language. The distinction between the two is whether or not the 1,600 kWh threshold in the RCR is applied to the net consumption or generation before or after the two registers are themselves netted.

An examination of this issue and the Company's preferred solution, which is that the threshold in the RCR is applied to the net consumption or generation after the two registers are themselves netted, is contained in Appendix B." [p.13, underline added]

Barbara Fischer states: "Net means net was an issue for my billing and letters to BCUC and Fortis along with telephone conversations has resolved this for me but not my neighbours." [Exhibit C6-1]

Paul McCavour states: "I am currently a FortisBC net metering customer and wish to address the issue of the net metering billing practice used by FortisBC to credit me for my production against my consumption." [Exhibit C7-1]

Mr. McCavour states further: "What follows is an excerpt of my letter to FortisBC outlining my particular complaint:

"Pursuant to our phone conversation on April 21st, 2016, I am sending you my official complaint about Fortis BC's billing practices for net metering customers. As I stated in my phone call, I wish to have my April 18th Fortis Electricity bill (and subsequent bills) re-billed on a net load basis (i.e. consumption minus generation and then applying the two tiers). This billing adjustment has already been made for another Fortis BC customer in the net metering program, Barbara Fischer. Ms. Fischer made the same complaint last year to both FortisBC and to the British Columbia Utilities Commission, and BCUC instructed Fortis to re-bill her

account. I feel it is only fair for every net metering customer to be treated the same way.

I feel that the current interpretation Fortis BC is making with respect to "net billing" penalizes net metering customers who make every effort to stay within the first tier rate. For example, on my April 18 bill (attached) Fortis delivered 1,733 kWh and received 397 kWh. Subtract 397 from 1,733 and the net equals 1,336, which is well under the threshold of 1,600 kWh. Instead, by not calculating consumption minus generation and applying the two tiers, Fortis charged us the second tier for 133 kWh, and then credited me the amount I produced." [Exhibit C7-1]

- 8.1 Is the net metering bill calculation issue identified by FBC the same as the one referred to by Ms. Fischer and Mr. McCavour? Please explain.
- 8.2 Mr. McCavour's description of the billing methodology used by FBC which he was complaining about appears to be the 'separate transaction' methodology that is not now FBC's preferred methodology. Please explain. Had FBC been using the 'separate transaction' methodology at some point? What methodology is FBC currently using?
- 8.3 Is FBC currently using the same RCR net metering bill calculation methodology for all customers? If not, in what circumstances are different methodologies used?
- 8.4 Was there a complaint to the Commission about this net metering bill calculation issue? If so, please describe the history and outcome, both for the specific complainants and other net metering RIB customers. What was the bill calculation methodology on which the complaint was based? Did the Commission make a ruling on the complaint? Was there a settlement without a Commission ruling? What bill calculation methodology was used in resolution of the complaint? Was this methodology the same or different than the methodology originally used?
- 8.5 In FBC's view, has the Commission indicated a preference for one or other of the alternative bill calculation methodologies?

"The billing methodology preferred by FBC (scenario iii) will produce a smaller credit for those customers that have Net Excess Generation over the course of a billing period but will also produce a lower bill for those customers that are net consumers of energy. Since most net metering customers are net consumers, the Company expects most customers to benefit from confirmation that calculating billing after the individual registers are netted is appropriate." [Appendix B, page 2, pdf p.29 of 45]

- 8.6 Is it FBC's understanding that adoption of the 'application of threshold after netting the registers' methodology would resolve the concerns (in this respect) of net metering customers such as Ms. Fischer and Mr. McCavour?
- 8.7 Please describe any feedback FBC has received in support of the 'separate transaction' methodology.

“Once a kWh Bank billing methodology is fully implemented, the billing issue described in this section ceases to be a concern. Until such time as the kWh Bank is in use, or in the event that the Commission does not approve the use of a kWh bank at FBC, the change above is required.” [Appendix B, page 3, pdf p.30 of 45, underline added]

8.8 If not answered above, please explain which of the two RCR net metering bill calculation methodologies FBC is currently using.

**9.0 Topic: Net metering customer characteristics**  
**Reference: Exhibit B-2, Customer Letters, page 3**

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British Columbia Utilities Commission  
FBC Net Metering Program Tariff Update Application  
Order G-59-16, Directives 2 and 3  
Page 3



Rate Code	Description	Number of Accounts	Had NEG During Any Billing Period	Had NEG Eligible for Monetary Compensation	Accounts Better Off	Accounts Worse Off	Accounts No Impact
RS01	Residential RCR	67	24	7	40	12	15
GS20	Small Commercial	15	6	1		1	14
RS03	Residential Exempt	2	0	0			2
GS21	Commercial	2	0	0		2	
T2ARB	Residential TOU	1	1	1		1	
IR60	Irrigation	1	0	0			1
	<b>Total</b>	<b>88</b>	<b>31</b>	<b>9</b>	<b>40</b>	<b>16</b>	<b>32</b>

9.1 Please confirm, or otherwise explain, that “Had NEG Eligible for Monetary Compensation” means an account in which at year end there was a positive dollar credit (due to net excess generation). What is the date of year end? Is it the same for all net metering customers?

9.2 Please confirm or otherwise explain that the table covers 36 months and three annual cycles.

9.2.1 Does “Had NEG Eligible for Monetary Compensation” mean at one year end or at all year ends? I.e., does 7 RCR accounts “Had NEG Eligible for Monetary Compensation” mean that there were 7 occasions in which an account had a positive dollar credit at year end, so that this could be 7 different accounts, or two accounts that had a positive dollar credit at year end in each of the three years analyzed plus a third account?

9.3 Please confirm, or otherwise explain, that an account that “Had NEG Eligible for Monetary Compensation” at year end might or might not be an account in which there was a net excess of generation on an energy basis over the year.

- 9.4 If not already provided in Fortis's response to Commission IR 2.1, for each rate code listed in the table, please provide a breakdown of:
- 9.4.1 the generator type,
  - 9.4.2 average capacity installed by generator type if available,
  - 9.4.3 total annual energy (kWh) provided to FBC per Register 2, total annual energy received from FBC per Register 1, and net annual energy provided or received,
  - 9.4.4 the average price (\$/kWh) of NEG Eligible for Monetary Compensation,
  - 9.4.5 the amount of NEG (kWh) sold to FBC at the end of the annual period or periods.
- 9.5 Please confirm that Accounts Better Off; Accounts Worse Off; Accounts No Impact means accounts that would be better or worse off assuming no change in generation or consumption pattern in FBC's proposed scenario of energy bank with annual excess energy at March 1 paid at RS 3808 Tier 1 compared to the status quo financial credit model.
- 9.6 Please explain in more detail the results indicated in the three right-hand columns (Accounts Better Off; Accounts Worse Off; Accounts No Impact):
- 9.6.1 What factors determine whether an account will be Better Off or Worse Off? Is it due solely to the size of any annual net excess generation? If so, is there a breakeven point? If not, what factors are involved?
  - 9.6.2 Is it the case that any net metering account with an annual excess generation (in kWh) will be Worse Off under the FBC proposals? If not, please explain the circumstances in which a net metering account with an annual excess generation (in kWh) would be Better Off.
  - 9.6.3 There are two net metering accounts in the Commercial rate class. None "Had NEG Eligible for Monetary Compensation." Both are Worse Off. Does this mean that for these two accounts the proposed change from dollar carry forward to energy carry forward fully explains the impact (as distinct from the pricing of annual excess energy)? Would this outcome (Worse Off) apply to all potential net metering Commercial accounts, or is due to the circumstances of the two particular accounts in question? What is it about these two accounts that causes them to be Worse Off? In what circumstances would a new Commercial net metering account be Better Off?
  - 9.6.4 What baseline was used to determine the Better Off, Worse Off, No Impact outcome? Was it all three years combined? One particular year?

- 9.6.5 Please comment on the degree to which a given account has the same Better Off, Worse Off, No Impact outcome if each of the three one-year periods is used as a baseline.
- 9.6.6 Please provide the annual average and maximum quanta of the expected “worse off” effects and “better off” effects, (a) in absolute dollar terms and (b) as a percentage of the net metering customer’s total electricity billing.
- 9.6.7 In FBC’s view, is a bill impact analysis an appropriate approach to considering the proposed changes to the net metering program? If so, please provide a bill impact analysis of the proposed changes. If not, why not?
- 9.6.8 For the “better off” accounts, are they expected to be better off because of the proposed change to banking kWh for monthly NEG rather than banking dollar credits? If not, please explain.
- 9.6.9 A single net metering account is shown for the Irrigation rate code, and it is recorded in the No Impact column. Does FBC expect that any Irrigation rate class customer would usually or always experience no impacts due to the proposed changes, or might this outcome vary from year to year and from customer to customer, depending on circumstances?

**10.0 Topic: Background to the Net Metering Program**  
**Reference: Exhibit A-4, BCUC IR 2.3 and 2.4**

“2.2 Please provide the number of NM customer in each rate class as of June 1, 2016.”

“2.3 Please comment on how FBC envisions the NM program to be in 5 years’ time (2021) in terms of i) number of customers enrolled, and ii) total energy generated under the program.”

- 10.1 If not provided in the responses to BCUC IRs 2.2 and 2.3, please provide answers to these IRs that distinguish between a scenario in which the net metering tariff is retained as it currently is versus a scenario in which the net metering tariff is changed as requested by Fortis in this application.
- 10.2 Does FBC expect that the proposed changes will increase, or decrease, the number of new net metering program participants in future years?

**11.0 Topic: Net Metering Program, annual billing period**  
**Reference: Exhibit B-1, Application, page 10, footnote 11**

“March 31 has been chosen as it allows customers to take full advantage of any banked kWh through the high consumption winter season.”

- 11.1 What is the status quo year end date for FBC’s determination of whether a net metering customer has NEG eligible for monetary compensation? Is it the same for all customers?

11.2 Please explain in greater detail the basis for FBC’s implication that a March 31 year end is beneficial to net metering customers.

**12.0 Topic: Net metering customer data**  
**Reference: Exhibit A-2; Exhibit B-2**

Order G-59-16 states:

*“3. FBC is to provide to each FBC current Rate Schedule 95 customer who has received monetary compensation for any net excess generation (NEG) in the past three years, a comparison of the actual dollar amount received by the customer for the NEG in the past three years relative to the dollar amount the customer would have received under the NEG rate proposed in the Application (i.e. in addition a copy of the Application this Order and Regulatory Timetable per Directive 2).”*

The form of the letter FBC sent to net metering customers met the criteria in item 3 states:

In order to remove the impact of annual rate increases from the analysis, current 2016 rates were used for all calculations. The summary for your account is below. The financial impact is found by comparing column 1 to column 3 and recognizing that the value of the kWh remaining in the Bank has not yet been realized.

Current Bill Methodology		Proposed Bill Methodology		
1	2	3	4	5
Pre-tax Total of Bills including Customer Charges	Value of Net Excess Generation	Net Total of Pre-tax Bills and Value of kWh's Purchased from kWh Bank	Value of Net Excess Generation	kWh Remaining in Bank

12.1 Please provide the data that FBC provided to the net metering customers who received monetary compensation for any net excess generation in the past three years, without disclosing customer personal information. If necessary to protect privacy, please aggregate and provide averages.

**13.0 Topic: Grandparenting**  
**Reference:**

Several of the filed comments oppose the FBC changes but in the alternative suggest a ‘grandparent’ approach for existing net metering customers.

13.1 Please state the pros and cons of a grandparent approach for:

13.1.1 existing net metering customers who would be “Account Worse Off” if the proposed changes were approved and implemented,

13.1.2 all net metering customers at the time the changes come into effect, and

13.1.3 individual net metering customers who choose to opt in to a grandparent approach.

13.2 What does FBC say to a customer who has already implemented, or has made financial commitments to implement, a renewable self-generation facility sized to take advantage of annual net excess generation being priced at the customer's energy rate as opposed to the PPA Tier 1 energy rate?

**14.0 Topic: Price for annual net excess generation**  
**Reference: Exhibit B-2**

14.1 If FBC's PPA Tier 1 energy rate is the appropriate referent for the price of annual excess generation, should it be grossed up for line losses? If so, by how much? If not, why not?