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June 15, 2016

VIA ELECTRONIC MAIL

British Columbia Utilities Commission
 6th Floor, 900 Howe Street
 Vancouver, B.C.
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Attention: Ms. Laurel Ross, Acting Commission Secretary and Director

Dear Sirs/Mesdames:

Re: FortisBC Inc. (FBC) Net Metering Program Tariff Update Application ~ Project No. 3698875

We are counsel to the Commercial Energy Consumers Association of British Columbia (CEC). Enclosed please find the CEC's first set of Information Requests with respect to the above-noted matter.

If you have any questions regarding the foregoing, please do not hesitate to contact the undersigned.

Yours truly,

OWEN BIRD LAW CORPORATION

Christopher P. Weafer
 CPW/jlb
 cc: CEC
 cc: FBC
 cc: Registered Intervenors

**COMMERCIAL ENERGY CONSUMERS ASSOCIATION
OF BRITISH COLUMBIA (CEC)**

INFORMATION REQUEST #1

**FortisBC Inc. Net Metering Program Tariff Update Application
Project No. 3698875**

1. Reference: Exhibit B-1, Executive Summary, Pages 1 and 4

FortisBC Inc. (FBC or the Company) has had a Net Metering Program (the Program) available to customers in certain rate classes since 2009. The Program currently has approximately 100 participants with the majority generating power utilizing small scale residential photovoltaic installations.

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.

- 1.1. Please provide the number of customers in the program, the capacity installed, the kWh generated, and the net-excess generation by rate class, since the program started to date.
- 1.2. Please provide the total number of customers in the corresponding rate schedules, and the total energy sold, so that a proportion of customers and proportion of energy sold by those participating in the program can be identified.
- 1.3. What other types of power generating stations are employed in the Net Metering service?
 - 1.3.1. Please provide the number of each type of power generating station type if available.
 - 1.3.2. If FortisBC has a breakdown of the types of power stations being employed by rate schedule, please provide.
- 1.4. Is there a difference between the types of power generating stations utilized by commercial customers, and that utilized by residential customers?
 - 1.4.1. If yes, please explain and provide the rationale for why this might occur.
- 1.5. Please provide an approximation of the capital costs and energy costs that would be required for each of the different types of power generating stations, to serve the average load from each rate schedule.
- 1.6. Please provide an order of magnitude for the expected payback periods for participants installing appropriately sized power generation.
- 1.7. Please provide a monthly profile of the energy provided by rate class.

- 1.8. Please provide FBC's ability to store renewable energy in its system in terms of GWhs and duration of storage.
- 1.8.1. Is FBC's ability to store energy affected by hydroelectric system freshet conditions? Please explain.

2. Reference: Exhibit B-1, Pages 3 and 5

Key features of the Program currently are that it:

- Is available to residential, smaller commercial, and irrigation customers;
- Is available for installations defined as a clean or renewable resource in the BC Energy Plan;
- Is limited to a capacity of not more than 50 kW;
- Is located on the customer's premises;
- Operates in parallel with the Company's transmission or distribution facilities; and
- Is intended to offset part or all of the Customer requirements for electricity.

While there exists no requirement that FBC and British Columbia Hydro and Power Authority (BC Hydro) rates and programs be the same, and differences between the Net Metering programs of the two utilities have always existed, the Company notes that the intent of its Program is consistent with that of BC Hydro RS 1289. BC Hydro has stated,

BC Hydro continues to be of the view that the primary purpose of RS 1289 is to allow individual customers to meet all or part of their electricity demand in a simple and cost-effective manner, and not to sell energy to BC Hydro.⁴

- 2.1. Please provide the historical rationale for limiting the capacity to not more than 50 kW.
- 2.2. Please confirm that BC Hydro's Net Metering program has a limitation of 100kW.
- 2.2.1. If confirmed, please explain why FortisBC's program should be 50% lower than that of BC Hydro's.
- 2.3. Do BC Hydro customers have significantly higher average consumption rates than FortisBC customers? Please provide quantification by rate class.
- 2.4. Recognizing that the intent of the BC Hydro Net Metering program has been for customers to meet their own energy requirements, does BC Hydro's net metering program allow customers to produce and sell more electricity to BC Hydro than they typically consume, or do they have similar restrictions as FortisBC.
- 2.4.1. If different, please elaborate upon the difference and provide the rationale for the FortisBC's more restrictive policies.

3. Reference: Exhibit B-1, Page 5

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

- 3.1. Please confirm that electricity needs for business, residential and irrigation can reasonably be expected to change significantly over time, from 1 to thirty years.
- 3.2. Please confirm that businesses anticipating growth might be prudent to install generation to meet their future requirements, rather than just their present requirements.
- 3.3. How does FortisBC allow for changes to customers' energy patterns?
- 3.4. What is FortisBC's forecast for customer participation over the next 10 years? Please provide customer numbers and load, by rate schedule if available.
- 3.5. Has the cost of solar PV per watt been declining since the inception of the program? Please elaborate with quantification.
 - 3.5.1. If yes, has the declining cost of solar PV affected the payback for customers on the NM? Please explain.
 - 3.5.2. If yes, has the declining cost of solar PV reached the point of grid parity?
 - 3.5.2.1. If not, please project when this might occur and under what declining cost assumption this might happen in the next 5, 10, 15, 20, 25, 30 years.

4. Reference: Exhibit B-1, Pages 3 and 7

The current FBC Net Metering Tariff (RS 95) was approved in July of 2009 by Order G-92-09. The Program, inclusive of the changes proposed in this Application, remains consistent with objectives of the 2009 Application and the provincial policy consideration that it sought to address.

The Company's interactions with customers, both prior to and after the interconnection of a Net Metering System, have demonstrated to FBC that misconceptions exist about the intent of the Program. The Company believes the language should be made more explicit, to ensure that the RS 95 Tariff clearly reflects the purpose of the Program, and to avoid situations where a customer incurs an expense from installing a system larger than is necessary, or seeks to install such a system, under the expectation that the Program may be a revenue generator for the customer. The program should not encourage customers to generate electricity in an amount greater than required for their own needs by paying for excess energy at artificially high prices. Distributed generation installations may become more prevalent in the future, and given that NEG is currently valued at retail rates (which includes the Tier 2 rate of the RCR), such installations have the potential over time to raise average power purchase costs and increase the rates of all customers including those that are not participating in the Program.

- 4.1. Why has FortisBC waited until 2016 to clarify language that is resulting in customer misconceptions?
- 4.2. How has FortisBC dealt with misunderstandings from customers in the past?

5. Reference: Exhibit B-1, Page 8

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.

These changes will also be reflected on the Company's website page⁹ that describes the Program generally. The additional documents used in the administration of the Program, (*Application for Net Metering Program, Net Metering Interconnection Guidelines, and Net Metering Interconnection Agreement*) are technical in nature and do not speak to the Program intent and require no changes.

- 5.1. Please outline a scenario in which net metering customers retained a 50 MW maximum, but were entitled to sell electricity beyond their annual requirements into FortisBC's grid and elaborate on how such a scenario might impact FortisBC and non-participating customers. Please consider such issues as: How much energy might be available? What would be the appropriate price for FortisBC to pay for such energy? How would such energy affect FortisBC's planning and capacity requirements in the long run? Would there be net benefits to other customers or net losses? Please explain.

6. Reference: Exhibit B-1, Page 6

With the introduction of the RCR, and following the Tariff language of RS 95, NEG for residential customers is now compensated at the Tier 1 rate up to the threshold of 1,600 kWh over 2 months and at the Tier 2 Rate for amounts over 1,600 kWh over 2 months.¹⁰ FBC does not believe this to be reasonable given that:

1. The implementation of the RCR means that NEG can be valued at different amounts depending on the level generated, without any particular rationale;
 2. NEG can be valued at the Tier 2 level approaching 15 cents/ kWh which is far in excess of the cost of other resources available to the Company and also in excess of any measure of long run marginal cost that the Company utilizes in resource planning, potentially encouraging customers to install more generation than they need to offset their own consumption; and
 3. The relatively high per unit compensation amount incents generation above the levels intended by the Program.
- 6.1. Please provide the current compensation rates for Commercial and Industrial customers.

7. Reference: Exhibit B-1, Pages 9 and 10

While a customer has the ability under the Program to offset personal consumption, FBC does not believe that other customers (non-participants in the Program) should support the Company

purchasing power on their behalf at rates far above what is available from other sources. This situation would arise when residential customers in the Program generate excess electricity.

- 7.1. Would it be reasonable to purchase excess energy that is generated from customers under the Net Metering tariff at rates below that available from other sources? Please explain why or why not.
 - 7.1.1. If yes, please provide an estimate of what a suitable purchase price might be and explain why.

8. Reference: Exhibit B-1, Pages 10 and 11

5.2 PROPOSED PROGRAM CHANGES

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 31¹¹, those kWh hours will be purchased by the Company at the BC Hydro RS 3808 Tranche 1 rate.

The use of a kWh Bank will alleviate both the payment at different rates for NEG without any rationale as well as the calculation issues described in Section 6.

FBC continues to believe that all customer generation used by the customer to meet its own load on-site should be valued at the retail rate. However, the Company does not believe it is appropriate that NEG that it purchases from the kWh Bank should be given a greater value than either other readily available resources or for purchases from other independent power

Consistent with the approach used for other ad-hoc deliveries to the FBC system, the NEG will be valued at the BC Hydro RS 3808 Tranche 1 rate (currently 4.303 cents per kWh plus a 5% rate rider) and credited to the RS 95 customer's account balance annually. This will ensure that into the future, the impact to Program non-participants will be mitigated and participants will not be encouraged to install larger systems than they need to offset their own consumption.

- 8.1. Please provide references to FBC's Long Term Resource Planning and 3808 applications, and other relevant resource planning materials.
- 8.2. Please provide a comparison of the cost of Tranche 1 rate to the cost to FBC's of other sources of energy, including BC Hydro Tranche 2.
- 8.3. How much does FBC annually consume of BC Hydro's Tranche 1 energy?
- 8.4. What is the total Tranche 1 energy available from BC Hydro annually?
 - 8.4.1. How much Tranche 1 energy does FBC anticipate consuming over the next 20 years? Please provide in 1 year increments.
- 8.5. How much does FBC annually consume of BC Hydro's Tranche 2 energy?
 - 8.5.1. How much Tranche 2 energy does FBC anticipate consuming over the next 20 years? Please provide in 1 year increments.
- 8.6. Please compare the Tranche 1 rate to the residential, commercial and industrial rates currently being paid.
- 8.7. Please provide the average change (in annual \$) that will accrue to residential, commercial and industrial customers by rate class as a result of the transition to the Tranche 1 rate.
- 8.8. Please provide the maximum change (in annual \$) that will likely accrue to any residential, commercial and industrial customers by rate class as a result of the transition to the Tranche 1 rate.

9. Reference: Exhibit B-1, Appendix A, Page 1

Account Activity with kWh Bank – Non-TOU

	Period 1		Period 2		Period 3		Period 4		Period 5		Period 6		Total
	Meter Reading kWh	kWh Usage											
	Delivered to Customer	1,600	1,800	3,400	1,800	5,900	4,500	10,900	4,000	11,900	1,000	15,800	1,400
Received from Customer	1,500	1,500	3,500	2,800	5,600	2,100	8,600	3,000	9,700	1,100	11,800	1,600	11,800
Net kWh Delivered to Customer or Received from Customer	100	0	200	0	2,000	0	2,300	0	2,100	0	2,000	0	2,300
Opening kWh Bank Balance (kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0
kWh Bank Used	0	0	200	0	0	0	0	0	0	0	0	0	200
Closing kWh Bank Balance (kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0
Billed kWh in Billing Period	100	0	200	0	2,000	0	2,300	0	2,100	0	2,000	0	2,300

9.1. FortisBC bills its net metering customers bi-monthly and pays annually. Would there be a significant difference if FortisBC were to both bill and pay bi-monthly? Please explain.

- 9.1.1. If yes, please explain the impact and provide examples with quantification.
 9.1.2. If no, please explain the rationale for paying annually.

10. Reference: Exhibit B-1, Appendix B, Pages 2 and 3

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.

- 10.1. How many customers are net consumers of energy, and how many are net suppliers?
 10.1.1. Please provide the total net consumption and the total net supply from each rate class in dollars and kWh.
 10.1.2. What is the overall net consumption/net supply for the program in dollars and kWh by rate class?