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September 14, 2017

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC
V6Z 2N3

Attention: Mr. Patrick Wruck, Commission Secretary and Manager, Regulatory Support

Dear Mr. Wruck:

Re: FortisBC Inc. (FBC)
Project No. 1598911
Application for Community Solar Pilot Project (the Application)
FBC Final Written Argument

On April 26, 2017, FBC filed the Application referenced above. In accordance with the British Columbia Utilities Commission Order G-114-17 setting out the Amended Regulatory Timetable for the review of the Application, please find attached FBC's Final Argument.

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

Sincerely,

FORTISBC INC.

Original signed:

Diane Roy

Attachments

cc (email only): Registered Parties

BRITISH COLUMBIA UTILITIES COMMISSION

**IN THE MATTER OF the *Utilities Commission Act*,
R.S.B.C. 1996, Chapter 473 (the “Act”)**

and

An Application by FortisBC Inc.

Community Solar Pilot Project ~ Project No.1598911

FINAL WRITTEN ARGUMENT OF

FORTISBC INC.

September 14, 2017

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PART One: **BACKGROUND AND PROJECT SUMMARY**

1. FortisBC Inc. (FBC or the Company) has applied, through an Application to the British Columbia Utilities Commission (BCUC or the Commission) filed April 26, 2017, to construct, own, and operate a solar generation facility, described as “Community Solar”, in order to offer solar energy to its customers.
2. The Company has applied to treat the installation, and the energy offering to customers as a pilot project. The project has therefore come to be referred to as the Community Solar Pilot Project, or CSPP.
3. The CSPP has the following characteristics:
 - a. The project is a 240 kW solar array, composed of 720 panels, on land currently owned by the Company at its existing Ellison Substation which is located near the Kelowna International Airport.
 - b. The expected annual energy output in the first year is approximately 290,000 kilowatt-hour (kWh), or about 400 kWh for each of the 720 panels. This output is expected to decline at approximately 0.5 per cent annually, which is typical for solar panels.¹
 - c. The project cost estimate, including AFUDC and assuming an in-service date of April 2018, is \$968,861.²
4. The CSPP has been proposed in order to offer a wider range of customers the opportunity meet some portion of their energy requirements with energy generated by a solar resource.
5. For many customers of FBC, the ownership, as well as placement and operation of a photovoltaic (PV) system is not desirable or feasible. The Company's proposed CSPP is designed as an alternative to allow these customers, such as those who live in rental properties, multi-unit residential buildings (MURBs), or townhomes, to have an option to make solar power part of their energy mix.
6. The CSPP is not being proposed as a required energy resource within FBC's resource stack. The CSPP is viewed in isolation from the Company's Long Term Electric Resource Plan (LTERP) since the

¹ The output of the panels has been questioned only through Resolution IR 2.9.1. FBC, through its response, has confirmed that the expected output remains as filed in the Application.

² The project cost estimate was updated through the response to BCSEA-SCBC IR 1.7.1.

energy it will produce is not required to meet customer load, and were FBC forecasting an energy deficiency it is unlikely that a resource similar to the CSPP would be the option of choice to meet the need. In general, the timing of solar generation does not help to meet FBC's energy and capacity load-resource gaps and if the CSPP had to be considered within the criteria used in the LTERP to select the optimal set of resources to meet FBC's load, it would not be built.

7. The CSPP is being proposed to gauge customer interest in a solar offering and to gather information on the installation, operation, and maintenance of PV systems of this size.

8. Based on information gleaned from customer research, the participation in the Company's Net Metering Program, and the success of the Nelson Hydro community solar project, FBC does not anticipate difficulty in achieving full subscription of the CSPP.

PART Two: CSPP STRUCTURE AND RATES

9. Almost all FBC customers are eligible to take part in the CSPP, the exception being those customers taking service on Rate Schedule 81 (Radio-Off Advanced Meter Option), or on a rate in which energy charges are either time differentiated (such as Time-of Use rates), or do not form a separate component of the rate.

10. To the extent possible the CSPP, utilizing the *Virtual Solar* rate model as proposed by FBC, is structured to emulate continuing service from FBC that includes the installation by the customer of a solar photovoltaic system on their premises. Rather than purchase and install panels locally, a customer may subscribe to the CSPP for a designated number of panels, the projected annual output of which is not to exceed the estimated annual consumption of the associated FBC account.

11. Based on the updated cost estimate contained in the response to BCSEA-SCBC IR 1.7.1, the annual subscription cost per panel will be \$91.00. This amount will be billed as a monthly fee of \$7.58 per subscribed panel.

12. The Company offers the following summary points regarding the *Virtual Solar* rate associated with the CSPP:

- a. The final per-panel rate will be determined once the final construction costs are determined. However, FBC has no reason to believe that the actual costs should vary markedly from the current estimate;³
 - b. Once finalized and approved by the Commission, the CSPP rate will not rise for the life of the array. This will result in the value derived from participating in the CSPP increasing as the general level of rates rises.⁴
 - c. It is possible that in order to maintain subscriptions at a level that provides the best overall economic outcome for the project, the rate may decrease. ⁵
13. Once a customer is enrolled in the CSPP, he or she may expect that on a monthly basis:
- a. Their FBC bill will contain a charge equal to the number of subscribed panels times the final subscription rate;⁶
 - b. Prior to the calculation of energy charges, their pro-rated share of the output of the Ellison array (equal to the number of subscribed panels divided by 720 and multiplied by the total array output) will be deducted from the total energy consumption at the associated premise.⁷
 - c. In the event that a CSPP customer was also enrolled in the Company's Net Metering Program, all net metering related calculations would be completed prior to the CSPP output being applied to the account.⁸
 - d. In the event that a customer has subscribed to a sufficient number panels such that the allocated share of the Ellison array exceeds the customer's consumption, the kWh in excess of the consumption would be placed in a bank to be withdrawn and deducted from consumption in a future billing period. If, at March 31, there are kWh remaining in the bank FBC will purchase them from the customer at a rate equal to the BC Hydro 3808 Tranche 1 energy rate in effect at the time.⁹

³ BCOAPO IR's 2.20.2 and 2.20.3.

⁴ Ibid.

⁵ BCOAPO IR 2.19.1.

⁶ Virtual Solar Rate Schedule "Rate:". See Attachment 1.

⁷ Virtual Solar Rate Schedule, Billing Clauses 2 and 3. See Attachment 1.

⁸ Resolution IR 1.13.1.

⁹ Virtual Solar Rate Schedule, Billing Clauses 5 and 6. See Attachment 1.

14. In addition to the Virtual Solar rate, the Company has applied for Commission approval of a second rate, the *Solar Offset* rate, which is based on the same financial assumptions as the Virtual Solar rate. The Solar Offset rate would allow a customer to designate a certain percentage of energy consumption each month to be met with energy generated at the Ellison array. However, FBC is not proposing to offer this rate initially, and may not offer the rate in the future unless it is of the opinion that it would lead to an increase in participation in the CSPP where the CSPP could not otherwise be fully subscribed.

15. FBC seeks approval of a rate that it may not implement because it believes that addressing both in this application is in the interest of regulatory efficiency. Rather than place another application before the Commission at some point in the future, the Company feels it makes sense to explore the additional rate at the same time as all of the other issues surrounding the Application are being considered and while participants are fully involved in the CSPP process. Having the derivation and structure of the rate previously examined and approved will make any future implementation a relatively easy matter. In addition, the more expansive and inclusive discussion of rate options improves understanding, by contrast and discussion, of the preferred Virtual Solar rate option.

16. Given the small number of panels in the Ellison array relative to the FBC customer base, the current interest in Net Metering and small scale generation in general, and the pricing of the Virtual Solar rate, it is likely that the CSPP will be fully subscribed without offering the Solar Offset option. It is nonetheless without additional cost to hold the additional rate option aside for future consideration.

17. FBC has applied for approval of the CSPP and the associated rates in accordance with sections 44.2 and sections 59-60 of the Utilities Commission Act (UCA). In all the circumstances outlined above and as set out in the Application and ensuing regulatory process, the CSPP as proposed by FBC meets the requirements of the UCA and is in the public interest and should be approved by the Commission.

ALL OF WHICH IS RESPECTFULLY SUBMITTED.

Dated: September 14, 2017

[original signed by Corey Sinclair for]
Diane Roy

Attachment 1

SCHEDULE 85A - FortisBC Virtual Solar Rate Option

APPLICABLE: The FortisBC Virtual Solar Rate Option is for individually metered Customers who wish to participate in the FortisBC Community Solar Pilot Program (CSPP). Under the FortisBC Virtual Solar Rate Option, the actual output of a defined number of solar panels that form a portion of a Defined Solar Generation Resource (DSGR) located in the FortisBC service area will be used to offset consumption at a premise at which the Customer also takes service from FortisBC. Participation in the FortisBC Virtual Solar Rate Option is limited in the Company’s sole discretion to the amount of solar generation available in each DSGR and subscription will be made on a first come, first served basis.

ELIGIBILITY: The Virtual Solar Rate is available to all Customers of FortisBC with the exception of those being served under Rate Schedule 81 (Radio-Off Advanced Meter Option), on a rate in which energy charges are either time differentiated (such as Time-of Use rates), or do not form a separate component of the rate, (such as with Lighting rates).

AVAILABILITY: For each DSGR, individual customers may contract for the output of a set number of panels capable of producing up to 100 percent of their usage for the prior 12 months, on a kilowatt-hour (kWh) basis. For any DSGR, non-residential customers will be limited to 25 panels each for the first 6 months of the DSGR operation to allow sufficient time for residential customers to subscribe. FortisBC may limit the number of solar panels allocated to any single customer. In the event that a material change in a customer’s consumption will result in the persistent accumulation of unused output on an annual basis, FBC may require the customer to reduce the number of panels subscribed such that other customers will have access to them.

BILLING:

1. Customers will be required to have meters read on the last day of each month and are required to be billed on a monthly basis.

Issued _____
 FORTISBC INC.

Accepted for filing _____
 BRITISH COLUMBIA UTILITIES COMMISSION

By: Diane Roy _____
 Vice President, Regulatory Affairs

By: _____
 Commission Secretary

SPECIAL PROVISIONS:

1. A customer that chooses to take service under Virtual Solar Rate must remain on the Program for a minimum of 12 billing periods, however, a Customer may change the number of panels subscribed at any time, with the minimum of panels being one.
2. Program participation is limited such that the Company will not allocate more than its best estimate of any DSGRs total annual output. This estimate will include consideration of the amount of the DSGR output that may be committed to the participants in any other Program that also supplies Customers from the same DSGR.

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Director, Regulatory Affairs

By: _____
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EFFECTIVE (applicable to consumption on and after)

TBD 2018

G-XXX-17

SCHEDULE 85B - Solar Offset Rate

APPLICABLE: The Solar Offset Rate is a program available to individually metered FortisBC Customers for the purpose of meeting a defined portion of total electrical service from a solar resource located within the FortisBC service area. With Solar First, Customers can choose the percentage of consumption on an existing account that will be supplied by solar generation from a Defined Solar Generation Resource (DSGR) located in the FortisBC service area. Participation in Solar First is limited in the Company’s sole discretion to the amount of solar generation available in each DSGR and subscription will be made on a first come, first served basis.

ELIGIBILITY: The Solar Offset Rate is available to all Customers of FortisBC with the exception of those being served under Rate Schedule 81 (Radio-Off Advanced Meter Option), on a rate in which energy charges are either time differentiated (such as Time-of Use rates), or do not form a separate component of the rate, (such as with Lighting rates).

RATE: For each kWh of energy deemed to be supplied from a DSGR as follows:

Ellison Solar Project Solar Offset Rate \$0.248 / kWh

BILLING:

1. Solar Offset Rate Customers are required to have meters read on the last day of each month and are required to be billed on a monthly basis.
2. Each month, the Solar Offset Rate portion of the customer bill will be determined as follows:

$$\text{Solar Offset Rate Charges} = \text{Total Metered Consumption} \times \text{Nominated Solar \%} \times \text{Solar Offset Rate}$$

In the event that in any given month, if, after deducting from the total array output, the output that is allocated to the Virtual Solar Panel customers there is insufficient output remaining to satisfy the aggregate requirement of the Solar Offset customers, the individual Solar Offset customers will have their allocations reduced such that they will receive the same percentage of the available output as if no shortage existed.

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BILLING (CONT):

3. Each month, the balance of the Customers consumption will be billed pursuant to the rate schedule under which the Customer normally takes service.
4. The Solar Offset subscription has no impact on the Demand Charges billed pursuant to the rate schedule under which the Customer normally takes service.

DEFINED SOLAR GENERATION RESOURCES:

1.	Ellison Solar Garden	720 Panels @ 0.335 kW/panel
	Project Annual Output:	290,000 kWh

SPECIAL PROVISIONS:

1. Customers may specify that 10% to 100% of monthly consumption is to be served under the Solar Offset Rate, in 10% increments.
2. A customer that chooses to take service under Solar Offset Rate must remain on the Program for a minimum of 12 billing periods, however, a Customer may change their nomination at any time.
3. Program participation is limited such that the Company will not allocate more than its best estimate of any DSGRs total annual output. This estimate will include consideration of the amount of the DSGR output that may be committed to the participants in any other Program that also supplies Customers from the same DSGR.

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