

William J. Andrews

Barrister & Solicitor

1958 Parkside Lane, North Vancouver, BC, Canada, V7G 1X5
Phone: 604-924-0921, Fax: 604-924-0918, Email: wjandrews@shaw.ca

September 27, 2017

British Columbia Utilities Commission
Sixth Floor, 900 Howe Street, Box 250
Vancouver, BC, V6Z 2N3
Attn: Erica Hamilton, Commission Secretary
By email: commission.secretary@bcuc.com

Dear Madam:

**Re: BCUC Project No.1598911,
FortisBC Inc. Community Solar Pilot Project Application,
BCSEA-SCBC Final Argument**

This is the final argument of the B.C. Sustainable Energy Association and Sierra Club B.C. in response to FBC's September 14, 2017 Final Submission.¹

BCSEA-SCBC support Commission approval of the Community Solar Pilot Project, the "Virtual Solar" rate model, and the "Solar Offset" rate model for the reasons set out in this letter.

A. The Community Solar Pilot Project and Rate Designs

The physical part of the Community Solar Pilot Project is a proposed 720 panel, 204 kilowatt solar PV generating facility at FBC's Ellison substation in the north end of Kelowna, at a cost of \$968,861.² FortisBC customers could sign up for "Virtual Solar" and pay a monthly fee to acquire (virtually, not physically) the energy output from one or more solar panels. This energy would be credited to their regular electricity bills, reducing the number of kWh for which they are charged. The amount of energy (kWh) credited to program participants would be determined by the metered energy output of the Ellison solar array.

FortisBC estimates the unit energy cost of renting a solar panel at around \$0.248/kWh.³ At first the monthly fee for a Virtual Solar panel would amount to a substantially higher price per kWh than the participating customer's regular retail rate. However, the monthly fee for the solar panel would stay the same (or be reduced⁴) in future years while the regular retail rate continues to rise. Sooner or later, the participants in the CSPP program would be paying less for their solar power (per kWh) than the regular rates.

¹ http://www.bcuc.com/Documents/Arguments/2017/DOC_49983_09-14-2014_FBC%20Final%20Argument.pdf

² Exhibit B-4, BCSEA IR 1.7.1

³ *Ibid.* The cost per panel will be finalized after construction is completed.

⁴ FBC says it might, in the future, apply for Commission approval to reduce the Virtual Solar per-panel price for the Ellison array. This could occur if, for example, one or more additional community solar projects had been constructed and it was decided at the time that it would be desirable to have the same price per panel for all the community solar projects. However, the fundamental commitment is that FBC would not seek to increase the price per panel for the Ellison solar array in the future.

The rules would be fairly straightforward. A participant could drop out at any time. The number of participants and the amount of solar power sold under the pilot program would be limited by the number of panels. A customer wouldn't be allowed to sign up for more solar power than they normally use. If a customer had more solar power in a billing period than they actually consumed, then the excess (in kWh) would be taken off their next bill (a "kWh bank" concept). If a participating customer moves to different premises within the Fortis area, they can take their Virtual Solar panel(s) with them.

In addition to the Virtual Solar rate, FBC is also seeking approval of a "Solar Offset" rate that would be offered in the event that not enough customers sign up for Virtual Solar. Under the Solar Offset rate, customers could elect to offset (virtually) a set percentage of their electricity use from 10% to 100%, at the same price per kWh as was used to determine the price of a panel under the Virtual Solar rate design (i.e., \$0.248/kWh subject to adjustment based on final construction costs). Fortis would maintain a waiting list for customers who prefer this option.

The purpose of the CSPP is to provide customers with a new renewable energy option, and to provide information to consider in the development of potential expanded offerings in the future.⁵

The CSPP's solar energy is a clean or renewable resource. The energy output will likely offset hydro-based energy purchases and will have no effect on FBC's overall percentage of clean generation.⁶

B. Factors to be considered

Why would customers participate in the CSPP? Customers may be motivated to participate in the CSPP for the opportunity to participate in virtual ownership of solar PV panels that notionally reduce their electricity consumption.

In addition, while the monthly fee for a Virtual Solar panel would initially amount to a substantially higher price per kWh than the regular retail rate, there is the potential for the financial value of participating to increase over time. From a customer's financial perspective the "value proposition" of participating in the CSPP is that the notional value of the consumption offset would increase as electricity rates increase. In other words, by joining the CSPP before all the output of the solar array has been acquired the participating customer obtains the right to participate continuously in the CSPP in future years as the financial value of the consumption offset increases due to anticipated general rate increases.⁷

Uptake and risk to ratepayers. The pricing structure of the CSPP is designed so that with full subscription the project costs will be fully covered by revenue from participants. This applies to both the Virtual Solar and the Solar Offset rate designs. If the CSPP is not fully subscribed then there would be a shortfall between revenues and costs that would be borne by ratepayers. The actual rates (per panel in the Virtual Solar rate design or per kWh in the Solar Offset rate design) will be finalized after the project is completed and most of the project costs are known with certainty. BCSEA-SCBC are satisfied that the financial estimates provided by FBC are

⁵ Exhibit B-1, p.1

⁶ Exhibit B-2, BCUC IR 1.9.4

⁷ Exhibit B-4, BCSEA IR 1.12.1

reasonable and support a conclusion that if the CSPP is fully subscribed then project revenues will fully cover project costs.

FBC acknowledges that there is a risk that the pilot project would be or would become less than fully subscribed. However, FBC's evidence and argument is that it expects the CSPP to become fully subscribed under the Virtual Solar rate, and if not then full subscription would be obtained by added the Solar Offset rate. BCSEA-SCBC are satisfied that this is a reasonable expectation and that it would not be worthwhile for FBC to spend additional money trying to fine tune the estimate of market potential. Ultimately, the only way to determine if there is a viable market is to carry out the pilot project.

In BCSEA-SCBC's view, the size of the exposure in the event of under-subscription is small and manageable. Even with zero subscription the exposure is the equivalent of a rate increase of only 0.017 percent,⁸ and likelihood of zero subscription is extremely low. If the Virtual Solar rate design fails to achieve full subscription then FBC would be able to offer the Solar Offset rate design to attract additional participation.

BCSEA-SCBC are satisfied that the CSPP's level of risk to ratepayers is small and manageable and justified by the value of the project.

The CSPP is not a resource option. FBC has been clear throughout the proceeding that the CSPP is not, and is not intended to be, a resource option to meet a system need for energy. FBC does not have a need for the CSPP energy on a planning basis in the next ten years. And, the CSPP would certainly not be the lowest cost (or most cost-effective) resource option in any event. FBC also addressed this topic in response to information requests from the panel in the Commission's proceeding regarding FBC's 2016 Long Term Electricity Resource Plan (LTERP).⁹

In BCSEA-SCBC's view, the CSPP is not intended to be a new resource option and should not be evaluated on that basis. It is acknowledged that it would not be justified as a new resource option at this time. Rather, BCSEA-SCBC submit that the Commission should consider the application in terms of the purpose of the CSPP, which is, as stated above, to provide customers with a new renewable energy option, and to provide information to consider in the development of potential expanded offerings in the future.

The CSPP, Net Metering, and Distributed Generation. In BCSEA-SCBC's view, some of the apparent criticisms of the CSPP proposal that have arisen in this proceeding and in the 2016 LTERP proceeding are based on an over-estimation of the scope and purpose of the Community Solar Pilot Project.

BCSEA-SCBC see the Community Solar Pilot Project as a small pilot project aimed at learning whether and how this particular model can make benefits that are somewhat equivalent to those of net metering available to customers for whom installing their own small-scale self-generation is not possible or not desired. The CSPP is not a substitute for FBC's Net Metering Program, for future community-owned generation facilities, or for the development of an FBC distributed

⁸ Exhibit B-2, BCUC IR 16.1

⁹ BCUC Project No.3698896, Exhibit B-25,

http://www.bcuc.com/Documents/Proceedings/2017/DOC_49867_B-25-FBC_Panel_IR1_Response.pdf

generation policy. Nor, in BCSEA-SCBC's view, does the CSPP constitute a threat to FBC's Net Metering Program, future community-owned generation facilities, or the development of an FBC distributed generation policy. On the contrary, in BCSEA-SCBC's view, the CSPP will modestly enhance public awareness of solar PV generation and environmentally-oriented rate designs and it will provide information on the implementation of one particular model that will be valuable for the development of various models. These benefits of the CSPP should not be overstated. In BCSEA-SCBC's view, the Community Solar Pilot Project is a small step in a favourable direction.

Annual net excess generation. In the unlikely event that a participating customer accumulated more CSPP solar energy than the customer used over a year,¹⁰ then the net annual excess would be paid out at a price equivalent to the BC Hydro RS 3808 Tranche 1 rate, which is currently 4.475 cents per kWh plus a 5 percent rate rider.¹¹ BCSEA-SCBC consider that this price is not unreasonable, in the context that the intention of the program is limited to offsetting the participant's own consumption. The RS 3808 Tranche 1 price does have a conceptual basis as being consistent with the valuation used for other ad-hoc deliveries to the FBC system.¹² However, the main point is that a CSPP participant is entitled to reduce their number of panels at any time and presumably a participant would do so to keep their CSPP virtual energy down to a level that doesn't exceed offsetting their consumption.¹³

Ellison location. BCSEA-SCBC agree with FBC that the proposed location on the grounds of FBC's Ellison substation is suitable, and that it was selected after reasonable consideration of alternatives.

Contractor, cost and design of solar array. FBC conducted a request for proposals to obtain bids for construction of the project on an Engineer, Procure and Construct basis. From three proposals, FBC selected the proposal by Skyfire Energy Inc. BCSEA-SCBC are satisfied that this was a suitable process and that the accepted proposal is reasonable.

Eligibility for participation in the CSPP. The proposal is that all FBC customers are eligible to participate in the CSPP with the exception of those on the residential radio-off advanced meter option (RS 81), time of use rates, or rates such as Lighting in which energy is not a separate component of the rate.¹⁴ While it is desirable in principle not to exclude any customers, BCSEA-SCBC are satisfied that the proposed exclusions are necessary for practical reasons.¹⁵

Evaluation of pilot project. FBC says it will collect data on the performance of the solar installation and customer value derived from participation in the CSPP. It says it will file with the Commission, and post to the FBC website on a quarterly basis, a report addressing: project

¹⁰ This could occur, for example, if a participating customer's usage dropped substantially after the customer entered the CSPP program.

¹¹ Exhibit B-2, BCUC IR 1.14.4

¹² Exhibit B-2, BCUC IR 1.14.4

¹³ The fact that a CSPP participant can reduce their number of panels at any time makes the issue of the price for annual net excess virtual generation in the CSPP program quite different than the issue of the price for annual net excess generation in the Net Metering program that is now under reconsideration in a different BCUC proceeding.

¹⁴ Exhibit B-1, Appendix A, pdf p.26

¹⁵ See: Exhibit B-4, BCSEA IR 1.10.1 and 1.10.2; and Exhibit B-5, ICG IR 1.5.1

energy production, operating and maintenance work and costs, program subscription rates by billing option (if applicable) and program wait list status.¹⁶ FBC says the criteria for evaluation of the pilot project will include: program participation and attrition, participant feedback, technical data such as actual production, and financial outcomes related to the accuracy of forecast costs and revenue.¹⁷ BCSEA-SCBC are satisfied that this is a reasonable plan for evaluation and reporting. This information will be useful for the developers of community-owned solar projects and utilities interested in innovative rate designs.

Solar Offset rate design. BCSEA-SCBC concur with FBC¹⁸ that it is in the interests of regulatory efficiency for the Commission to consider the proposed Solar Offset rate in the current proceeding even though FBC would not implement it unless under-subscription emerges as a problem. In the alternative, the Commission could defer a decision regarding the Solar Offset rate design proposal.

C. Conclusion

For the reasons set out above, BCSEA-SCBC support Commission approval of the Community Solar Pilot Project and associated rates in accordance with section 44.2 and sections 59-60 of the *Utilities Commission Act*.

All the above is respectfully submitted.

Yours truly,

William J. Andrews



Barrister & Solicitor

¹⁶ Exhibit B-1, p.16

¹⁷ Exhibit B-4, BCSEA IR 1.20.1

¹⁸ FBC Final Argument, para.15