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British Columbia Utilities Commission
Sixth Floor, 900 Howe Street, Box 250
Vancouver, BC, V6Z 2N3
Attn: Patrick Wruck, Commission Secretary
By Web Posting

Dear Sir:

Re: FortisBC Inc. Application for Reconsideration and Variance of Order G-199-16
Project No.3698875
B.C. Sustainable Energy Association and Sierra Club B.C.
Final Submission on Reconsideration Phase Two

This is the final submission of BCSEA-SCBC pursuant to the regulatory timetable set out in Order G-127-16.[1]

BCSEA-SCBC

BCSEA-SCBC strongly support FortisBC's net metering program and, more broadly, small-scale distributed generation in B.C. They want to ensure that any changes to the FBC net metering program serve to strengthen the program and foster participation in it.

Members of BCSCA and SCBC are ratepayers of FortisBC and they are current or potential participants in the net metering program. BCSEA-SCBC's interests in this proceeding are as non-profit public interest environmental and energy policy organizations, and as representatives of their members' interests as ratepayers.

BCSEA and SCBC participated in the Commission's 2009 proceeding that led to Order G-92-09 approving FortisBC's net metering program. BCSEA-SCBC also participated in the Commission's review of FortisBC's 2010 monitoring and evaluation report on the net metering program. BCSEA-SCBC participates regularly in proceedings regarding BC Hydro's net metering program, such as re-pricing (2008-2009), amendment (2011-2012), amendment (2014) and evaluation reports.

Background

On April 15, 2016, FBC filed an application for Commission approval of certain orders regarding its Net Metering Program. FBC's main requests were that the Commission:

(a) endorse that the purpose of the NM Program is to enable participants to offset some or all of their electricity consumption annually (but not to produce annual net excess generation),

[1] Exhibit A-8.

(b) approve a kWh Bank mechanism for transferring net excess generation from one billing period to the next, in replacement of the existing Dollar Bank mechanism, and

(c) approve the price for annual net excess generation being set equivalent to the price FBC pays for Tranche 1 power under the Power Purchase Agreement (PPA) between FBC and BC Hydro, rather than being implicitly equivalent to the program participant's retail rate.

The Commission held a regulatory proceeding ("original proceeding").

In its September 23, 2016 final written submission in the original proceeding, BCSEA-SCBC argued that annual net excess generation from NM should be welcomed, not discouraged. BCSEA-SCBC quoted the Commission panel in its Reasons for Decision in Order G-26-04 regarding BC Hydro's net metering program as follows:

> "[net metering] provides customers with the means to take responsibility for their own production and to lower their environmental impact."

BCSEA-SCBC added that the FBC NM program, including annual NEG, promotes commercialization of distributed micro-generation technologies in B.C., and promotes public awareness of electricity generation and usage.

BCSEA-SCBC also supported approval of the kWh Bank mechanism, and favoured the price for annual NEG being set on the basis of FBC's long run marginal cost.

On December 29, 2016, the Commission issued Decision and Order G-199-16. The Commission panel did not adopt BCSEA-SCBC's position on the purpose of the FBC NM Program. Rather, the Commission panel found that the purpose of the FBC NM Program is limited to enabling participants to offset some or all of their electricity consumption annually. The panel approved changes to the RS 95 (Net Metering) tariff specifying that:

- "new customers will not be accepted into the Net Metering Program if their proposed generating capacity exceeds their anticipated annual consumption," and
- "customers who are already participants in the Net Metering Program and wish to remain in the Net Metering Program, must not increase their generating capacity without prior approval of FBC, which shall be granted on the same basis as a new customer will be evaluated for entry into the Net Metering Program."[2]

This aspect of the original decision is not subject to reconsideration.

The panel in Decision and Order G-199-16 also made three findings that are now the subject of the current reconsideration application:

- The panel rejected the kWh Bank mechanism.
- The panel rejected the PPA Tranche 1 price as the price for annual NEG.
- The panel directed FBC to file an amendment to RS 95 to require that customers not be removed from the Net Metering Program solely on the basis of producing NEG on an annual basis.

[2] Order G-199-16, p.2.

On March 17, 2017, FBC applied for reconsideration of the three points listed above.

In their July 26, 2017 submission on the first phase of the reconsideration application, BCSEA-SCBC supported reconsideration of the rejection of the kWh Bank mechanism, which BCSEA-SCBC said would require a fresh analysis of whether a customer would be ineligible for the NM Program due to having, or being expected to have, regular annual net excess generation.

In Order G-76-17[3] dated May 17, 2017, the Commission established Phase Two of the reconsideration process for the FBC Application for Reconsideration and Variance of Order G-199-16. The Commission did not agree to reconsider the determination that the purpose of the NM Program is limited to offsetting some or all of the participant's annual consumption.

On May 26, 2017, intervener Andy Shadrack applied for reconsideration of Order G-76-17. By Order G-110-17 dated July 18, 2017, the Commission dismissed Mr. Shadrack's application for reconsideration of Order G-76-17.

Issues

In Order G-199-16, the Commission limited the scope of the reconsideration to the following three requests by FBC:

> "a) FBC not be directed to submit to the Commission changes to the Net Metering Tariff, RS 95, which require that RS 95 customers not be removed from the Net Metering Program solely on the basis of producing NEG on an annual basis;
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> b) The kWh bank described in Section 5 of the Application to carry forward NEG accumulated in a Net Metering customer's billing period to offset consumption in a future billing period, with an annual settlement for remaining unused NEG, be approved for implementation and the terms of RS 95 be amended accordingly; and
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> c) The terms of RS 95 be further amended such that Net Metering customers are compensated for any positive kWh balance remaining in the kWh bank at the end of the annual period using the British Columbia Hydro and Power Authority RS 3808 Tranche 1 rate."[4]

Outline of argument

In this submission, BCSEA-SCBC will address the issues in the following order: kWh Bank, price of annual NEG, and removal from NM program.

Issue 1. kWh Bank versus Dollar Bank

BCSEA-SCBC support a "kWh Bank" mechanism for accounting for net excess generation within a billing period. This would replace the current "Dollar Bank" mechanism. BCSEA-SCBC's submission focuses on the merits of a kWh Bank approach and not on the reasons for decision accompanying Order G-199-16.

[3] Exhibit A-4.
[4] Order G-76-17, Appendix A, pp.1-2.

Currently, the FBC NM program uses a Dollar Bank mechanism to account for net excess generation from billing period to billing period. NEG in one billing period is priced at the customer's rate for energy and credited as a dollar amount to the customer's account in the next billing period(s).[5]

In a kWh Bank mechanism, net excess generation within one billing period is carried forward as an offset (a credit) in kWh applied to the next billing period.

In BCSEA-SCBC's view, the kWh Bank is superior to the Dollar Bank because the kWh Bank is consistent with the "net" concept that gives the NM Program its name. A participant in the NM Program draws power from the utility at times and provides power to the utility at other times. It is the net power between the utility and the participant that determines the effect on the financial relationship between the participant and the utility. Since typical consumption and typical generation by NM participants have strongly seasonal variations,[6] the ebb and flow of electricity is netted between seasons and not merely within a single billing period. Put another way, the NM Program is at its core a swap of electricity between the utility and the participant, not a swap of money.

A second, related, factor is that the kWh Bank mechanism in net metering programs is used by BC Hydro and by other surveyed electrical utilities across Canada. In BCSEA-SCBC's view, this jurisdictional support for the kWh Bank mechanism is because the kWh Bank mechanism is logically consistent with the nature of a net metering program.

A third factor in favour of the kWh Bank is that for NM participants on FBC's two-tier Residential Conservation Rate, the Dollar Bank can put a different financial value on a kWh of NEG (Step 1 or Step 2) due to the timing of the NM participant's consumption from the grid rather than to any difference in value of the NEG to the utility. Moving to a kWh Bank would eliminate this arbitrariness and would have either no impact or a small beneficial impact for most NM participants.

Fourth, most NM participants would be financially unaffected or better off with the kWh Bank than the Dollar Bank. It is recognized that the small number of existing NM participants whose generation exceeds their annual consumption would be financially worse off under the kWh Bank (assuming they remain in the NM Program, which BCSEA-SCBC supports). However, the choice between a kWh Bank and a Dollar Bank should be based on what works best for the participants who meet the Commission-confirmed criterion that their self-generation is not anticipated to exceed their annual consumption.

[5] FBC clarifies that "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." Exhibit B-9, BCSEA IR 1.1.

[6] For example, NM participants with solar PV generation tend to generate more power during the summer than during the winter, and to consume more power during the winter than during the summer.

If a kWh Bank is approved, BCSEA-SCBC support a March 31 year end for the kWh Bank. March 31 "allows customers to take full advantage of any banked kWh through the high consumption winter season."[7]

Issue 2. Price for Annual Net Excess Generation

If the Commission approves the kWh Bank approach then there needs to be a method for determining the price per kWh that FBC will pay to a NM participant for annual net excess generation.[8]

The price for annual NEG will not apply to a particularly large amount of electricity, given the Commission's ruling that the FBC NM Program is limited to participants whose self-generation generation is not anticipated to exceed their annual consumption. In particular, the price for annual NEG will apply where

- the annual NEG was unanticipated when participant joined the NM program or resized its generation with FBC's approval, for example where the participant's annual consumption is lower than anticipated due to conservation and efficiency measures,[9] or
- the NM participant is one of the existing program participants whose generation facility routinely produces more electricity annually than the participant consumes annually.

A number of different reference points for the price for annual NEG in a kWh Bank approach have been canvassed in the original proceeding and in this reconsideration proceeding. These include: the customer's retail energy rate, FBC's long run marginal cost of firm clean renewable resources, the PPA Tranche 1 price, and a Mid-C market price.

In BCSEA-SCBC's view, the retail energy price is not an appropriate referent for valuing annual NEG. This is because the retail energy price covers not only the utility's cost of delivered energy but also the utility's cost of being able to meet system peak demand (which includes transmission) and a large portion of the utility's cost of providing billing and customer contact services (the rest being covered by the basic charge).

In the original proceeding, BCSEA-SCBC supported the LRMC as the reference point for the price for annual NEG. FBC disagreed on the ground that the LRMC is for firm energy whereas annual NEG under the NM Program is not firm. This is now correct, in light of the Commission's decision limiting the NM Program to self-generation not anticipated to exceed annual consumption (unanticipated annual NEG cannot be considered firm supply).

Accordingly, BCSEA-SCBC support the PPA Tranche 1 price as the reference point for the price of annual NEG. FBC says this is the highest price it pays for non-firm energy from IPPs, the other being a market-based price.[10]

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[7] Exhibit B-1, p.10, footnote 11.

[8] If the Commission retains the Dollar Bank approach then annual net excess generation is valued at the NM participant's retail rate.

[9] Alternatively, a participant could have annual net excess generation if the participant's generation facility produced more electricity than had been anticipated. For example, this could theoretically happen with a hydroelectric facility where the volume of flow turned out to be larger than anticipated.

Issue 3. Removal from NM Program for routine annual NEG

The following orders in Order G-199-16 are under reconsideration:

> "2... RS 95 customers cannot be removed from the Net Metering Program solely on the basis of producing annual Net Excess Generation...
>
> 6. The Commission determines that existing Net Metering Program participants who are in a [annual] Net Excess Generation position shall be afforded the same protection under the tariff as any new entrants to the Net Metering Program, regardless of how that [annual] Net Excess Generation came about and they cannot be removed from the Net Metering Program by reason of the [annual] Net Excess Generation."[11]

FBC argues that the prohibition on removal of a participant in the Net Metering Program from the program due solely to the participant producing annual Net Excess Generation is (a) inconsistent with FBC's asserted existing right to remove an existing or future participant from the NM Program if they do not meet the eligibility criteria by consistently producing annual NEG, (b) contrary to the public interest and contrary to the UCA's prohibition on preferential or discriminatory rates.

BCSEA-SCBC acknowledge that in general a regulated public utility has authority to remove a customer from a particular program where the customer is not in compliance with the program's eligibility criteria. This authority is subject to oversight by the Commission upon a complaint by an affected customer.

However, the issue that arose in the original proceeding was what would happen with the several NM participants who routinely produce annual net excess generation in the event that the Commission determined that the NM program is limited to offsetting some or all of the participant's annual consumption (which scenario has come to pass). In response to a Commission IR, FBC said it "would reserve its right to remove the customer from the NM Program as it would no longer be in compliance with either the Eligibility criteria contained in the Tariff or the objective of the Program."[12]

In the original proceeding, BCSEA-SCBC had called for eligibility in the NM Program to be determined as of when a participant entered the program (which position was not adopted by the original panel and is not subject to reconsideration). In the alternative, i.e., if the Commission was to find that the NM Program is limited to offsetting some or all of a participant's annual consumption (which was the result), BCSEA-SCBC said the following regarding what should happen with NM participants with regular annual net excess generation:

> "The consequence of a NM participant being out of compliance with the rules applicable to routine annual NEG (addressed in the next points) should be focused on, and limited to, the amount of compensation for non-compliant annual NEG –

[10] Original Proceeding, Exhibit B-1, p.11; Current Proceeding, Exhibit B-4, BCUC IR 9.1.
[11] Order G-199-16, p.2, underline added.
[12] FBC said that removal from the NM Program would mean that the customer would continue to receive service but would not receive credit in a billing period for net excess generation within the previous billing-period.

> not removal from the NM program. As the saying goes, "Don't throw the baby out with the bathwater." Even if there is a problem with regular annual NEG (despite BCSEA-SCBC's arguments above), the underlying participation in the NM program still has value for both the participant and the utility. BCSEA-SCBC would strongly oppose an outcome in which an otherwise compliant net metering system is denied any participation in the net metering program due solely to non-compliance with a limit to do with regular annual net NEG."[13]

BCSEA-SCBC continue to take the position that a NM participant should not be removed from the program solely due to persistent annual NEG and that the focus should be on maintaining the customer's participation in the NM Program in a manner consistent with the purpose of the program.

FBC has said that it would implement a "flexible approach... to review NM customer accounts for potential removal [that would] allow for specific customer circumstances... to be addressed."[14] FBC states:

> "Annual NEG that is strictly a result of customer conservation or normal course changes in occupancy is not likely to be of sufficient quantity to justify removal and these are factors that could weigh against a decision to remove."[15]

While FBC's comments in that respect are welcome, they do not address the situation of the few existing NM customers who routinely deliver annual net excess generation. BCSEA-SCBC asked FBC to address the options for a transition mechanism short of removal from the NM Program.

FBC said that "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." However, FBC went on to describe an option in which a customer removed from the NM program due to annual NEG would be compensated for net deliveries to FBC using a pro-forma Energy Purchase Agreement. FBC states:

> "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

[13] Original Proceeding, BCSEA-SCBC final submission, September 23, 2016, pp.6-7.
[14] FBC Final Submission, October 12, 2017, para.37.
[15] *Ibid.*

> 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."[16]

While BCSEA-SCBC continue to oppose the concept of removal of existing NM participants from the program due to persistent annual NEG, if such removals are to occur BCSEA-SCBC support in principle the development of options that would provide reasonable compensation for the delivery of energy by such customers to the FBC system.

Conclusion

As stated above, BCSEA-SCBC strongly support FortisBC's net metering program and, more broadly, small-scale distributed generation in B.C. They want to ensure that any changes to the FBC net metering program serve to strengthen the program and foster participation in it.

All the above is respectfully submitted.

Yours truly,

William J. Andrews

Barrister & Solicitor

cc. Distribution List by email

[16] Exhibit B-9, BCSEA IR 8.3.1.