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March 16, 2018

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, B.C.
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Attention: Mr. Patrick Wruck, Commission Secretary and Manager, Regulatory Support

Dear Mr. Wruck:

Re: FortisBC Inc. (FBC)

Project No. 3698820

Self- Generation Policy Stage II Application (the Application)

Response to the British Columbia Utilities Commission (BCUC or the Commission) Information Request (IR) No. 2

On November 10, 2016, FBC filed the Application referenced above. In accordance with Commission Order G-51-18 setting out the amended Regulatory Timetable for the review of the Application, FBC respectfully submits the attached response to BCUC IR No. 2.

If further information is required, please contact Corey Sinclair at 250-469-8038

Sincerely,

FORTISBC INC.

Original signed:

Diane Roy

Attachments

cc (email only): Registered Parties

Table of Contents

A. TERMINOLOGY AND PRINCIPLES

1.0 Reference: Exhibit B-1, p. 3 and Appendix E (Stage I Decision), pp. 27–28; BCUC Decision and Order G-202-12 on FortisBC – Guidelines for Entitlement to non-PPA Embedded Cost Power and Matching Methodology – Compliance filing to Order G-188-12, 27 December 2012 (FBC Matching Methodology Decision), p. 11

BCUC regulatory principles since G-38-01

At page 11 of the FBC Matching Methodology Decision, the Commission stated:

> The Commission has upheld a consistent regulatory principle, that self-generators should not arbitrage power to the detriment of other ratepayers, but has applied different mechanisms to achieve this protection in different circumstances. The mechanisms have included the GBL and net-of-load approaches. In Orders G-38-01 and G-17-02 it applied the GBL approach; in Order G-48-09 it applied the net-of-load approach.
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> …
>
> In the Commission Panel's view, GBLs, net-of-load, and now entitlement with appropriate rate design are all mechanisms the Commission can use to satisfy its regulatory principle that self-generators should not arbitrage power to the detriment of other ratepayers. Different mechanisms are appropriate in this case because of the different relationships (utility-to-customer or utility-to-utility) and the different service characteristics of the utilities, namely the Heritage Contract for BC Hydro and the APA for FortisBC. (Emphasis added)

On page 28 of the FBC Stage I Decision, the Commission stated: "Accordingly, the Panel clarifies the language used in Directive 5 of Order G-60-14 from 'ensure that arbitrage is not allowed' to 'mitigate the risk to other ratepayers' due to differences between the regulated rates and the contract or market price."

On page 3 of the Application, FBC states that "For customers in Scenario 1 above - that is, customers who sell self-generation that is not in excess of load – a construct must exist that mitigates the risk to other ratepayers by demarking the amount of electricity that the customer must generate for self-supply prior to directing any self-generation to third party sales." (Emphasis added)

1.1 For the purposes of this Application, does FBC consider the terms "ensuring arbitrage is not allowed" and "mitigate the risk to other ratepayers" due to differences between the regulated rates and the contract or market price to be synonymous? Please explain why or why not.

Response:

FBC considers the term, “mitigate the risk to other ratepayers” to be a softening of the strict requirement of, “ensuring arbitrage is not allowed”.

An outright prohibition on arbitrage could be interpreted to preclude any mechanism in the previous regulatory process associated with Self-Generation Policy (SGP) that allowed for the possibility of embedded cost power supplied by FBC to a customer to be resold by the customer at a higher price.

Mitigation, on the other hand, is a term that allows for some such sales to occur, provided that the risk of potential impact to other customers is considered and deemed to be acceptable to the Commission.

1.2 Please provide FBC’s views on the extent to which (if any) the Commission’s terminology clarification (i.e., going from ‘ensure that arbitrage is not allowed’ to ‘mitigate the risk to other ratepayers’) affects the regulatory principle that the Commission set out in G-38-01.

Response:

If the regulatory principle established in Order G-38-01 is considered to be an outright ban on any “arbitrage” activities that may have a negative impact on other ratepayers, then FBC considers that the clarification offered by the Commission represents a departure.

Directive 1 of Order G-38-01 required BC Hydro to allow RS 1821 customers with idle self-generation capability to sell excess self-generated electricity, provided the self-generating customers do not arbitrage between BC Hydro's embedded cost utility service rates and market prices.

Arbitrage is deemed to be avoided through the establishment of a GBL set at a level that ensures that BC Hydro is not required to supply any increased embedded cost service to a RS 1821 customer selling its self-generation output to market.

Acceptance by the Commission of the SSO construct proposed by FBC may result in an increase in the amount of embedded cost utility service provided to a self-generating (SG) customer over historical levels. The SSO reduces, but does not eliminate, the risk to other ratepayers associated with utility support of the export activities of the SG customer.

2.0 Reference: Exhibit B-1, Appendix E (Stage I Decision), pp. 43-44; Exhibit C2-3 in FBC Self-Generation Stage I, p. 16

Idle generation

In the FBC SGP Stage I proceeding, BC Hydro suggested the following definition for *idle*:

> In the context of equipment, "idle" means "not active or in use". Clearly, an existing generator that is not in use is idle. An existing generator that is being used at less than its full capability will have unused capacity which may be considered to be idle. A generator that was idle in the past but is fully utilised in current conditions is not now idle generation. A generator that does not presently exist and might be built in the future is not idle generation.

At pages 43 to 44 of the Stage I Decision, the Commission stated:

> Second, Order G-38-01 only addressed idle generation. At that time, self-generators had idle capacity because it was not economical to use that self-generation to off-set load because BC Hydro's embedded cost rates were lower…
>
> …
>
> Specifically, it is likely that the customer is operating in an economically efficient manner and using whatever self-generation is economically efficient to off-set load with the remainder being idle. In the Panel's view this approach would probably result in a sharing of benefits because ratepayers would benefit from the self-generator off-setting a portion of its load and the self-generating customer would benefit from having the ability to capitalize on current market opportunities for the excess.

2.1 Does FBC agree with BC Hydro's suggested definition of idle generation? If not, please provide FBC's definition for idle generation as it is used in this Application.

Response:

In the Application, at page 25 FBC states:

> The methodology proposed by FBC, which treats all customers and all generation in a consistent manner, with a formulaic approach, negates the need to define generation as either "idle" or "incremental".

FBC has not, therefore, put forward a definition for idle generation to be used in the Application or in determining an SSO for SG customers. As a general matter, FBC accepts the description of idle generation used by BC Hydro as cited.

2.2 Does FBC agree with the premise that self-generators would have idle capacity if it is not economical to use that capacity to self-supply (if it were, they would use that capacity before buying power)? If not, please explain why not.

Response:

FBC agrees that a customer, acting rationally, will choose the energy supply that has the lowest cost. This would mean that if a customer has generating capacity that could be used but is not because utility supply is available at a lower cost, that generation would be considered idle.

However, the situation may be more complex if the SG customer has generation that exceeds their own load requirements such that they are making third party sales. Since they must presently self-supply fully in order to make the third party sales, a simple determination of idle generation will result in none being evident. However, this may not be fair to a SG customer who is required to fully self-supply in order to make sales of surplus generation since they can never have idle generation as long as the net of load requirement is in place.

Therefore, if actual generation data is to be used to determine idle generation, either the total generation must be less than the load (such that there are no sales) or the SG cannot be required to fully meet their load before selling surplus. In FBC's view since SG customers are currently required to fully meet load before selling surplus, no actual generation numbers can be used at this time to determine idle generation for SG customers where generation capability exceeds load.

2.3 Please indicate whether FBC considers its current self-generating customers (Celgar, Tolko and Nelson) to have idle generation today and over the last 5 years, and if so at what levels.

Response:

FBC is not aware of any idle capacity at its self-generating customers' facilities.

3.0 Reference: Exhibit B-1, Appendix E (Stage I Decision), p. 53

Alternative solution considered

On page 53 of the Stage I Decision, the Panel lists a number of considerations that the GBL Guidelines need to consider:

…

- The Panel generally supports the setting of a GBL at the normal historical level of self-supply for idle generation;
- The Panel does not support the setting of a GBL for customer with new self-generation that result in all self-generation being considered incremental and available for export; and
- The Panel does not support the setting [sic] the GBL for customers currently exporting under the net-of-load construct being determined in the same manner as is proposed for customers with idle generation (i.e. on the basis of preserving the status quo).

3.1 If FBC's existing self-generating customers do have idle generation, would it be appropriate to set the SSO at the level where the self-generator stopped self-supplying because it became uneconomical to do so? If not, please explain why not.

Response:

FBC considers this alternate approach to setting an SSO to be generally consistent to what would occur naturally, were it operating under the SSO proposal included in the Application.

A SG customer with idle generation would presumably only leave the generation idle if using it to self-supply was uneconomic. This level would, therefore, be equivalent to the *Annual Generation Used to Serve Load* that features in the Company's proposal.

However, in the Company's proposal, the SSO would be reduced by 50 percent in recognition of the sharing of the net-benefits of self-generation, which is a requirement of Commission direction.

3.2 If FBC's existing self-generating customers do not have idle generation for any reason, including having been required to operate under the NOL construct, would it be appropriate to set their SSO based on a case-by-case evaluation of the amount of self-generation that would have been used to self-supply had the

self-generator been able to operate in an economically efficient manner in absence of constraints, with the remainder considered 'idle'(i.e., available to be sold to a third party without causing harm to other ratepayers)? If not, please explain why not.

Response:

As explained in the response to BCUC IR 2.2.2, FBC considers that in certain cases, actual generation numbers may not be appropriate to use to determine idle generation as defined by the information request. FBC agrees that while difficult to determine, it may be possible to arrive at a reasonable calculated idle generation amount based on a case-by-case evaluation of each individual situation. However, FBC must point out that while such an approach provides an idle generation amount, it is not based on actual SG historical customer operations (as suggested by the first consideration that the GBL Guidelines need to consider listed in the preamble) and therefore there could be an impact to other ratepayers. As such, FBC believes that it is more appropriate to consider this approach a "mitigation approach" rather than an "avoidance of harm" approach. Under the approach suggested by the information request, mitigation is uncertain and the higher that market prices become, the less rate mitigation to other customers there may be. Under low market price conditions, the SG customer can be expected to self-generate to avoid utility charges since the market sale price would be less than the utility rate. However, as market prices and the associated fuel costs increase, then a certain level of idle generation would begin to be expected if the cost of generation starts to exceed the utility cost of supply. Under the idle generation approach, as soon as generation goes idle, it is reasonable to recalculate the SSO[1] as it makes no economic sense to have the generation sit idle while there is a market opportunity to take advantage of. The problem is that once the generation is considered "idle", any benefits of using that generation to support third party sales belong solely to the SG customer.

The utility must now supply the SG customer load and due to the higher market prices, this is likely to increase rates to other customers. It is entirely possible that all of the SG customer generation could become idle generation. In such a case, the rate impact to other customers could be significant as the SG customer switches to 100 percent utility supply and moves 100 percent of their generation to third party sales. There does not even need to be a change in actual operations in order for this to occur under a case by case evaluation approach.[2]

[1] Any SSO methodology must deal with how to change the SSO over time. The very concept of idle generation itself comes from a time when the electric power system was under great stress due to an overall shortage of generation. This led to a huge distortion in the power markets and a Commission determination that idle generation existed. It was never intended that this generation should be considered idle forever, but only as long as conditions warranted it (please see the preamble to BCUC IR 2.36). Likewise, it seems reasonable to assume that if conditions were to once again cause idle generation that any SSO based on idle generation would be recalculated as soon as possible to reflect the changing conditions.

[2] This is a very complex issue and regardless of what is done there is no guarantee that a SG customer

In other words, under the most critical conditions where mitigation is most required by other customers, there may be 0 percent mitigation under the idle generation approach to setting the SSO. While this could be considered causing no harm to other customers since the generation is considered idle, there is almost certainly significant additional costs borne by the other customers while the SG customer keeps 100 percent of the benefits from the generation sales for themselves. This is avoided in the FBC proposed SSO calculation methodology, which takes a more measured approach that relies on a sharing of benefits between the SG customer and other ratepayers under all circumstances.

Furthermore, FBC believes that if the criterion that enables sales to a third party is such that sales cannot cause harm to other ratepayers (as measured by rates increases), then no set SSO is required. Conditions at any given point in time may or may not allow a mutually beneficial arrangement and FBC and the SG customer should be free to negotiate an agreement that is mutually beneficial, if such is possible. Failing such an agreement, only third party sales in excess of load would be allowed and there would be no reason for this Application, which looks for an alternative to the net of load approach.

3.3 For new self-generation, either from existing or new customers, would it be appropriate to set the SSO based on a case-by-case evaluation of how much self-generation the proponent would use to self-supply in order to operate in an economically efficient manner in absence of constraints (e.g., GBL, SSO, NOL), with anything above that amount being considered new or incremental for the purposes of selling it to a third party with no harm to other ratepayers? If not, please explain why not.

Response:

Please refer to the response to BCUC IR 2.3.2.

3.4 Please discuss whether the above alternative approaches would (or would not) result in non-discriminatory treatment of existing and new customers as it seeks to establish the SSO amount at the level after which it stops to be economically efficient to self-supply.

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will not simply abandon the generation and negotiate to return to utility supply.

Response:

FBC believes that under the above alternative approaches, no distinction between new and existing customers needs to be made. This lack of need to distinguish between new and existing customers is a feature common with the FBC proposal and in both cases results in non-discriminatory treatment of all customers.

3.5 Please discuss whether the above alternative approaches would result in a self-generation policy that meets the considerations outlined in the preamble.

Response:

Please refer to the response to BCUC IR 2.3.2. In addition, FBC believes the above alternative approaches would be difficult to implement in a fair and unbiased manner due to the complexity of industrial operations. FBC believes that the processes would take significant time and expense and would be unlikely to come to a conclusion that both the utility and the self-generator would accept. If agreement was reached, it would very likely be only after a significant negotiation period around the factors to use in the study.

3.6 Please indicate whether FBC had considered these alternative approaches in developing the Application. If so, what were FBC's reasons for rejecting them?

Response:

In developing the Application FBC did not pursue approaches that require complex studies but provide uncertain rate mitigation to other customers. This is a complex issue and FBC believes that the Application provides a straightforward methodology to resolve this issue in a manner that provides both significant rate mitigation to other customers and reasonable opportunities to SG customers and allows this matter to conclude without the need for additional process and uncertainty.

3.7 Please confirm that an SSO established based on the alternative approaches described above would lead to a sharing of benefits through the SSO as envisaged by the Stage I Panel. For example, reaching a balance between not harming the ratepayers (because the SG would self-supply until the point where it becomes uneconomic to do so) and allowing the self-generators to capitalize on market opportunities should they occur. If not, please explain why not.

Response:

Not confirmed. Please refer to the response to BCUC IR 2.3.2.

4.0 Reference: Exhibit B-1, Appendix E (Stage I Decision), p. 28

Mitigating risks to other ratepayers

On pages 27-28 of the Stage I Decision, the Commission states:

> …the key issue with regard to the purchase and sale of electricity by a customer with self-generation is whether such activities are beneficial, detrimental or neutral as far as their impact on other ratepayers.
> …
>
> What needs to be addressed are the specific measures FortisBC needs to put in place to mitigate those risks.

4.1 Under FBC's current SSO proposal, if an existing customer currently operating under the NOL construct (Scenario 3) elects to sell self-generation to a third party that is not in excess of load (Scenario 1), please confirm that this customer would see the amount of self-supplied electricity going from 100% to 50% of its load during the most recent representative year, while FBC would go from supplying 0% to 50% of the customer's load. If not, please explain why not.

Response:

The situation described would arise only in the case where an SG customer had sufficient generation to self-supply its entire load and had historically done so.

For example, in the case where a customer had a load of 8 MW and had generation capacity of 6 MW that was previously used to serve load, it would have historically self-supplied 75 percent of its load.

The resulting SSO would be 50 percent of the historical generation used to serve load, or 0.5 x 6 MW = 3 MW.

The customer would then normally serve 3/8 of its load or 37.5 percent.

However, even in this scenario, since the customer would be obligated to purchase supply from FBC equal to the difference between load and the SSO on an hourly basis, the percentage of load actually served is not static and would fluctuate with changes in load.

4.1.1 As this self-generating customer starts making simultaneous purchases and sales of electricity, please describe the conditions under which the customer's activities would be "beneficial, detrimental or neutral as far

as their impact on other ratepayers." When responding, please take into account which third party the SG is selling its power to (FBC, BCH or other) and discuss the impact to FBC and BCH ratepayers.

Response:

Generally speaking, whether the impact of an SG customer increasing its power supply requirements from FBC as a result of third party sales is beneficial, detrimental or neutral as far as the impact on other ratepayers depends on how the additional revenue to FBC compares to the additional cost to FBC related to resourcing the additional sales. This is a highly variable number that to a great degree will depend on what time frame the additional cost to FBC is to be considered over. If the additional load is to be considered a long-term utility obligation, then the LRMC of power may be the appropriate metric although it is possible that FBC could enter into a contract to purchase the power at a lower cost direct from the self-generator. However, FBC believes that it is difficult to consider such increased self-generator load a long-term obligation and as such, shorter term market purchases more fairly represent the cost to FBC.

The only difference in ratepayer impact that is dependent on the party to which the SG customers sells its output is the transmission services charges that the SG customer would have to pay when delivering to a party other than FBC. For other FBC customers, it would be best for the sales to be made to BC Hydro since this is the only circumstance under which transmission service (wheeling) related revenues would be forthcoming.[3]

As noted in the Application at page 7, FBC considers any harm to BC Hydro's customers to be remote as is consistent with the Commission's findings in the New PPA Decision (G-60-14) at pages 92 and 98 as quoted. If the third party sale is to BC Hydro, FBC assumes that BC Hydro would be able to protect its interests through the negotiation process of agreeing to purchase the power.

4.1.1.1 If the benefits to FBC (both short and long-term) arising from the incremental sale to that customer are *lower* than the costs (both short and long-term) to FBC of acquiring the resources to supply that load, would the SSO construct not be detrimental to other FBC customers regardless of whether the Annual Generation Used to Serve Load is multiplied by 50% or any factor between 0 and 100%? Why or why not?

[3] Sales to FBC would not require wheeling. Deliveries to a party within or beyond the BC Hydro service area would result only in wheeling revenue for BC Hydro due to anti-pancaking provisions.

Response:

For clarity, FBC does not consider that the difference between the costs and benefits (the "net benefits") that may result from a SG customer's below-load energy sales to third parties would accrue to the Company, but would ultimately fall to the account of customers in general.

FBC agrees that in the particular instance described above the SSO construct would be detrimental to other FBC customers regardless of the factor; the only difference would be degree, as there would be a net cost in each case. This fact does not mean the SSO construct is in general flawed, but that results are contingent on the particular circumstance. On balance, FBC expects that this net cost will not be typical of occasions on which the SSO is used.

4.1.1.2 Please explain how FBC's proposed SSO construct "mitigates the risk to other ratepayers" of: a) FBC; and b) BC Hydro.

Response:

In light of the Commission's determination that there is no material risk posed to BC Hydro customers by the potential activities of FBC's SG customers, the Company has given consideration of such risk the appropriate weight in its design of the SSO methodology. In effect, by mitigating the overall risk that results from the potential actions of a SG customer, any risk to BC Hydro customers is also reduced.

For FBC's customers, the SSO methodology mitigates risk by ensuring that the SG customer must continue to self-supply at least 50 percent of the load it has historically self-supplied.

FBC considers this to constitute risk mitigation in light of previous determinations made by the Commission that have seemingly entrenched the opportunity to engage in some level of third party sales with only the magnitude of those sales to be in question.

FBC recognizes that there is some evolution of thought in the chronology of the multiple regulatory processes that have dealt with the issues surrounding SG customers in recent years. However, FBC is cognizant of the Commission's determination in the G-188-11 Decision:

> Given that Celgar has entitlement to some amount of FortisBC non-PPA embedded cost power, it follows that Celgar would be allowed to sell such power to third parties unless specifically precluded by doing so by contract with FortisBC. That is, such non-PPA power could be exposed to the potential for arbitrage, subject to the terms of an agreement between FortisBC and Celgar which would require Commission approval.

This has created the perceived reality that engaging in some level of below-load sales while increasing the reliance on utility supply is an available option for SG customers. This finding has not been reversed to the knowledge of FBC. FBC views the Commission's determinations in the G-60-14 Decision regarding the level of risk presented by such a circumstance to the customers of BC Hydro to be an example of where the Commission has revised its previous position that "PPA" embedded cost power was to be excluded from any embedded cost power that FBC would provide to replace power that the SG customer had historically used to serve load. In the view of FBC, if an increase in embedded cost utility supply is permissible under the construct approved by the Commission, it should fall to FBC to resource the increase in supply as cost effectively as possible, and there should be no restrictions, including one related to the unlikely use of PPA power.

In light of the foregoing, mitigation is obtained by limiting the exposure of FBC customers to resourcing at most 50 percent of the historical load of the SG customer, where a greater amount may otherwise have been determined through an alternative methodology.

4.1.2 Please confirm that no evaluation of economic efficiency is taken into account in applying the 50% factor.

Response:

The statement set out in the information request is confirmed on an individual customer basis only.

The 50 percent factor is intended to recognize the assumed presence of net-benefits of SG, and is applied in an effort to avoid a complicated, lengthy, and potentially contentious process designed to arrive at a defined value for any net-benefits.

A state of economic efficiency would exist where all resources are allocated to serve all parties in the best way possible, minimizing waste and inefficiency and resulting in the lowest overall cost. In the circumstances to which the Application relates, FBC views this as a concept applicable in a more holistic sense rather than on an individual customer basis

Given the difficulty of evaluating economic efficiency on an individual basis, FBC has, including through discussions with its largest eligible customer, arrived at a representative number that enables reasonable benefits to SG customers as well as significant mitigation to other customers.

It is assumed that over the longer term, where a diverse population of SG customers were provided an SSO determined as proposed by FBC, the overall system-wide net-benefits would settle around 50% for the aggregate SG pool and FBC customers in general.

If for each SG customer, all potential net-benefits could be perfectly identified, valued, and shared appropriately, and the customers resourced their loads in an optimal manner, an economically efficient outcome should also result on an individual basis. However, given the number of variables this is an unlikely eventuality on an individual-specific basis.

4.1.3 Please clarify whether rate schedule (RS) 3808 power could be included as part of the electricity sold to the self-generator under an SSO.

Response:

Please refer to the response to BCUC IR 2.4.1.1.2. It is the view of FBC that there is nothing in the PPA between FBC and BC Hydro that would preclude RS 3808 power from being used to meet any SG customer load once an FBC SGP is approved by the Commission.

5.0 Reference: Exhibit B-1, Appendix E (Stage I Decision), p. 25

Sale to a third party versus export

On page 25, the Stage I Decision stated: "In the Panel's view, the issue is not whether the energy goes to a third party or to the self-generator's service provider (the utility) as both constitute an 'export'. Whether the electricity physically leaves the plant site of the self-generator, as proposed in the FortisBC service area, or is deemed to leave that site, as in the BC Hydro service area, is still an export of energy."

A standard definition of *export* is provided as follows: "Send goods or services to another country for sale" (Oxford Dictionary).

5.1 Please indicate whether FBC agrees, for clarity, to use the term "sale to a third party" throughout its SGP instead the term export.

Response:

FBC agrees.

B. SECTION 2.5 CONCERNS

6.0 Reference: New PPA Decision, p. 100; Exhibit A-6, p. 2, Exhibit B-3, p. 6

Problem definition

On page 100 of the New PPA Decision, the Commission stated: "The Panel has concluded that the proposed restrictions in section 2.5 of the New PPA, as they related to self-generating customers in the FortisBC service territory, are no longer necessary. However, it recognizes that the Parties would gain a considerable amount of comfort if the Self-Generation Policy Issue in the FortisBC service territory was formally addressed and resolved once and for all."

In Exhibit A-6, the Panel asks: "Within this context, the Panel wishes to explore if, and potentially the extent to which, the key issues of the current proceeding are:

- appropriately framed;
- still relevant;
- still require a remedy; and/or
- within the jurisdiction of the Commission.

In response, FBC stated:

> The overall SGP is a collective of policies and rates that describe how service to a customer with self-generation within the FBC service area is to be managed. FBC considers that providing some clarity to customers through these documents is a positive outcome and that they are still relevant and should be put in place. As the SGP is structured, FBC believes that the Commission has jurisdiction to decide the matter. FBC does not see it as necessary to frame the SGP as linked directly to the Section 2.5 restrictions since those restrictions can either stay or be removed without impacting the SGP in its current state.

6.1 Notwithstanding a requirement to file a SGP Stage II Application originating from Order G-60-14 and Decision, please clearly articulate:

i. the issue(s)/problem(s) which need to be addressed by the FBC SGP;

ii. how the FBC SGP solves the issue(s)/problem(s) identified; and

iii. whether there are remaining issue(s)/problem(s) that are not solved by the FBC SGP.

Response:

In the view of FBC, the SGP is necessitated only by two circumstances that have arisen as a result of previous regulatory processes which were convened in the past concerning concepts with which it deals. The SGP is in part a response to the fact that in its absence, participants have repeatedly disagreed over how matters should proceed.

The first circumstance is the apparent opportunity afforded to customers such as Celgar (and therefore by extension, other SG customers) to sell power to third parties that is not in excess of load. In the absence of this ability on the part of SG customers, a mechanism to determine that amount of power that such a customer is required to self supply (in this case, the SSO) would not be needed.

The second circumstance is the requirement to recognize the net-benefits of self-generation, and to return some portion of those benefits to the SG customer.

Even in the case where a customer does not elect to take service pursuant to an SSO, but elects to take stand-by service utilizing RS37, the determination of net-benefits may still be required in order to adjust the Stand-by Billing Demand (SBBD) that RS37 requires. While the current version of RS37 is silent about net-benefits in the special provision that deals with the SBBD determination[4], FBC is mindful that the Decision attached to Order G-46-15 includes the following Commission determination at page 23:

> Stand-by Billing Demand for future customers should ultimately reflect both the costs and the benefits distributed generation provides to BC, and provide a level of price certainty regarding network charges for Stand-by Service to customers considering making self-generation investments. Any considerations in setting the SBBD for future customers must be consistent with the directions provided in Section 3.8.5 of the Stage I Decision for SBCD, and must reflect the benefits/detriments of self-generation. Specifically, SBBD for future customers must be based on a set of Commission-approved principles attached to the Stand-by Rate as a Tariff Supplement (TS). The Commission provided examples of some principles that could be included in the TS in the Stage I Decision which it still considers to be relevant.
>
> **Therefore, FortisBC is also directed to file for approval a Tariff Supplement to Electric Tariff RS 37 that establishes the principles to be considered in setting future customer's Stand-by Billing Demand, no later than ninety**

[4] Special Provision 1 of RS37 reads, "*Stand-by Billing Demand (SBBD) – Billing under this rate schedule requires the establishment of a SBBD, expressed in kVA. SBBD for a customer using this rate schedule will be set at an amount between zero and 100 percent of the Customer's SBDL and is to be used in the determination of the Wires Charge in RS 31. The SBBD is to be agreed to between the Customer and the Company and is specified in the GSA between the Company and the Customer. If the Customer and the Company cannot come to an agreement, the SBBD will be set by the BCUC*."

> **days after the Commission issues a final decision on the FortisBC Self-Generation Policy Application, which is currently underway as directed by Order G-60-14. Consistent with the Stage I Decision, once the principles have been approved in a separate process, FortisBC is directed to amend RS 37 such that it includes language stating that the setting of Stand-by Billing Demand will be based on principles as set out in the attached Tariff Supplement.** (Emphasis in original)

The proposed SGP contains provisions to effectively manage both of these issues, though it seeks for the purpose of workability to substitute a simple 50 percent sharing mechanism in place of the principles discussed in the Stand-by Rate process. FBC has not been able to identify another approach that would solve or address the issues in a better fashion than it has proposed.

In the absence of the circumstances identified above, service to SG customers, including the wheeling of generation output not required to serve load, could be managed through existing practices as has been the case in the past.

FBC is not aware of other difficulties in serving SG customers that exist to be solved whether by the SGP or other means.

7.0 Reference: Exhibit B-1, pp. 7 & 21; Exhibit B-2, BCUC 1.2.1

FBC's position on Section 2.5

On page 7, FBC states "At this time, the Company does not take a position on the necessity of removing the Section 2.5 restrictions."

On page 21 of the Application FBC further states "FBC itself takes no position on the removal of the Section 2.5 restrictions as in the opinion of FBC the current language in Section 2.5 allows for coexistence with the SSO methodology it has proposed."

In response to BCUC 1.2.1, FBC stated:

> FBC has formulated the SSO Guidelines in order to mitigate the risk to other customers (though as discussed in the response to IR 1.3 above, some level of risk remains). The SSO construct is intended to provide sufficient support for the removal of the restrictions imposed by Section 2.5 as preferred by the Commission.
>
> If the Section 2.5 Restrictions are not removed, then FBC will seek confirmation from the Commission that it considers that the SSO Guidelines provide protection for both the customers of FBC and BC Hydro such that the provision of an SSO to an FBC customer does not result in BC Hydro attempting to invoke the Section 2.5 Restrictions with respect to its service to FBC.

7.1 Please clarify FBC's position on the Section 2.5 Restrictions.

Response:

The referenced statements from its response to BCUC IR 1.2.1 represent the most current expressions of the FBC position on the section 2.5 restrictions.

As stated, FBC believes that the SSO construct clearly articulates how SG customers that wish to make sales to third parties will be treated, and once approved by the Commission would allow the removal of the section 2.5 restriction.

However, since there is flexibility in the language of the section 2.5 clause that would allow it to remain but provide for alternate mechanisms with approval of the Commission, the clause and the SSO methodology can coexist.

7.1.1 Would FBC seek to effectively render Section 2.5 Restrictions unenforceable by seeking confirmation from the Commission that the provision of an SSO to an FBC customer provides protection to both FBC and BCH customers so that BC Hydro would not be able to invoke the Section 2.5 Restrictions?

Response:

It is the view of FBC that should the Commission approve the SSO methodology as a means to mitigate risk to other FBC customers, then service to SG customers utilizing the SSO should not be distinguished from any other load served by the Company from a resourcing perspective. FBC should seek to supply the load in the most cost-effective manner available.

FBC is not seeking to circumvent any provisions of section 2.5 of the PPA, but considers that the language of that section, including that most recently proposed by BC Hydro (as shown below from the 2014 Application for Approval of the Section 2.5 Guidelines), contemplates that a mechanism approved by the Commission is a viable alternative to precluding supply to FBC under the PPA. The PPA provides:

> For greater certainty, Section 2.5(a)(ii) is intended to prevent FortisBC from increasing its purchases of Electricity under this Agreement if such increased purchases would be a result of FortisBC's customers with self-generation facilities purchasing Electricity from FortisBC at regulated rates and simultaneously selling Electricity at higher rates, except as otherwise approved by the Commission. (underlining added)

7.1.2 Would FBC be indifferent if the Section 2.5 Restrictions continued to be in force even with an approved FBC SGP in place?

Response:

Please refer to the responses to BCUC IRs 2.7.1 and 2.7.1.1. In addition, it is less important to FBC whether or not the restriction remains than achieving some finality on the issue, such that all parties can begin discussions to reach operational agreements that reflect whatever the ultimate Commission decision determines regarding the terms of service.[5]

FBC believes that the terms of the Energy Export Agreement between FBC and BC Hydro, and in particular the Eligible Energy provisions and accounting procedures to ensure only Eligible

[5] Exhibit B-3, question 1A, September 7, 2017 FBC Letter of Comment on Outstanding Issues.

Energy is exported by FBC, provide a useful basis for determining what operational agreements would be required to ensure the terms of Section 2.5 of the PPA with respect to SG customer third party sales could be met, if so required.

As a matter of procedure, once certainty is achieved as to the requirements of section 2.5 of the PPA, if additional accounting procedures are required, FBC expects to negotiate the required changes to the Master Accounting Agreement[6] with BC Hydro, subject to Commission approval. In the event agreement cannot be reached with BC Hydro, it will fall to the Commission to provide additional direction.

FBC does not agree that it is "indifferent" in this case to the outcome regarding the Section 2.5 Restrictions, but believes that the potential outcomes can be dealt with, with further appropriate Commission guidance if required.

[6] The Master Accounting Agreement was approved at the same time as the New PPA as one of the associated agreements.

8.0 Reference: Exhibit B-1, p. 7 and Appendix D, p. 5

FBC's response to BC Hydro

On page 7 of the Application, FBC states:

> FBC understands that BC Hydro does not support the removal of the Section 2.5 restrictions and has provided reasons for this position in its submission on the draft SSO Guidelines that are included in Appendix C. FBC views the prospect of harm to BC Hydro's as remote. However, at this time, the Company does not take a position on the necessity of removing the section 2.5 restrictions.

Under point 3 of the BC Hydro Comment Responses, FBC responds:

> The Tranche 1 level of 1041 GWh was set as a reasonable approximation of FBC's power supply requirement from BC Hydro at the end of the original PPA term (BC Hydro PPA Application, FBC letter of support, page 12). As such, unless FBC purchased power from other sources that displaced the need for BC Hydro PPA power, FBC's expected load as of 2013 was understood to require approximately 1041 GWh of BCH PPA power. Even if the restrictions of Section 2.5 of the PPA are removed, there simply isn't sufficient room in the 1041 GWh for FBC long term planning to increase purchases from the BCH PPA to cover load requirements from FBC self-generating customers. Therefore, FBC expects that its Annual Electric Contracting Plan would meet increased self-generation load from sources other than the PPA.

On page 82 of the New PPA Decision, Table 5 presents FBC's expected use of Tranche 1 energy under the New PPA:

Table 5

FortisBC's Expected Use of Tranche 1 Energy under the New PPA

PPA Energy	FBC Forecast Tranche 1 Volume	FBC Forecast Tranche 2 Volume	Tranche 1 Energy Prices[2,3]	BC Hydro Tranche 1 Revenues[1]
Year	GWh	GWh	$/MWh	$000
2013Q4	197	0	$39.10	$7,703
2014	663	0	$39.88	$26,443
2015	771	0	$40.68	$31,366
2016	916	0	$41.50	$38,010
2017	981	0	$42.33	$41,521
2018	1,010.80	0	$43.17	$43,638
2019	1,019.30	0	$44.04	$44,885
2020	1,028.00	0	$44.92	$46,174
2021	1,038.50	0	$45.81	$47,578
2022	1,041.00	0	$46.73	$48,646
2023	1,041.00	0	$47.67	$49,619
2024	1,041.00	0	$48.62	$50,612
2025	1,041.00	0	$49.59	$51,624
2026	1,041.00	0	$50.58	$52,656
2027	1,041.00	0	$51.59	$53,710
2028	1,041.00	0	$52.63	$54,784
2029	1,041.00	0	$53.68	$55,879
2030	1,041.00	0	$54.75	$56,997
2031	1,041.00	0	$55.85	$58,137
2032	1,041.00	0	$56.96	$59,300
2033 Q1-Q3	634	0	$58.10	$36,838

1. Does not include capacity charges
2. Includes BC Hydro Tariff Rate Rider
3. Escalated at assumed CIP (2% a year)

Source: Exhibit C1-8, ICG IR 1.2.13

On page 85 of the New PPA Decision, the Commission Panel states as follows:

> FortisBC has forecast reaching the Tranche 1 cap by 2022 and BC Hydro forecasts it will reach it by 2024. Nevertheless, the real issue is how much unused Tranche 1 energy is available during that period to serve any incremental load. FortisBC has forecast on a cumulative basis approximately 900 GWh of unused Tranche 1 energy up to 2022, with a combined 773 GWh (85 percent) available in 2014, 2015 and 2016. BC Hydro forecasts that there will be 5,282 GWh of unused Tranche 1 energy, with about 500 GWh being available in each of the next seven years.
>
> The Panel is persuaded by FortisBC's submissions and is placing reliance on its forecast of available incremental energy over the 20 years of the New PPA in this Decision for the following reasons."

8.1 Please reconcile FBC's statement made in response to BC Hydro in Appendix D of the Application, that "FBC's expected load as of 2013 was understood to require approximately 1041 GWh of BCH PPA power. …" with Table 5 above, which shows that FBC had forecast to reach the Tranche 1 cap by 2022.

Response:

The 1041 GWh represents a reasonable approximation of FBC's expected PPA purchase requirements assuming no significant purchases of market energy. This was determined at the time of the PPA negotiations in 2012 and 2013. Table 5 referenced in the preamble shows lower FBC purchases of PPA energy since it includes the impact of FBC's market purchases.

8.2 Please update Table 5's forecasts for 2018 onwards. For 2013 Q4 to 2017, please show the actual historical data. Please add a column with Tranche 2 Energy prices and BCH Tranche 2 revenue, and a column with the market price (Mid-C) for each year (historical or forecast) for the 20-year period from 2013 to 2033. Please use the table format below:

PPA Energy	**FBC Tranche 1 Volume**	**FBC Tranche 2 Volume**	**Tranche 1 energy prices**	**BCH Tranche 1 revenues**	**Tranche 2 energy prices**	**BCH Tranche 2 revenue**	**Spot prices**
Year	**GWh**	**GWh**	**$/MWh**	**$000**	**$/MWh**	**$000**	**$/MWh**
2013 Q4	Actual	Actual	Actual	Actual	Actual	Actual	Actual
…	…	…	…	…	…	…	…
2017	Actual	Actual	Actual	Actual	Actual	Actual	Actual
2018	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
…	…	…	…	…	…	…	…
2033 Q1-Q3	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast

Response:

Please refer to the updated table below showing updated actuals and forecasts of FBC's PPA purchases and average Mid-C market prices, including transmission, losses and foreign exchange.

PPA Energy	Actual/Forecast	FBC Tranche 1 Volume	FBC Tranche 2 Volume	Tranche 1 Energy Rate	BCH Tranche 1 Revenue	Tranche 2 Energy Rate	BCH Tranche 2 Revenue	Mid-C (Spot) Price
Year		GWh	GWh	$/MWh [1]	$	$/MWh	$	$/MWh [2]
2013 Q4	Actual	155.5	0	$ 39.10	$ 6,078,680	$ 129.70	$ -	$ 54.33
2014	Actual	598.5	0	$ 41.27	$ 24,704,737	$ 129.70	$ -	$ 44.22
2015	Actual	507.2	0	$ 44.41	$ 22,526,986	$ 129.70	$ -	$ 35.95
2016	Actual	499.7	0	$ 46.40	$ 23,185,434	$ 129.70	$ -	$ 32.35
2017	Actual	621.6	0	$ 47.97	$ 29,819,191	$ 129.70	$ -	$ 34.31
2018	Forecast	708.0	0	$ 48.63	$ 34,432,659	$ 129.70	$ -	$ 45.34
2019	Forecast	900.0	0	$ 49.57	$ 44,614,696	$ 129.70	$ -	$ 46.21
2020	Forecast	895.0	0	$ 51.06	$ 45,694,643	$ 129.70	$ -	$ 47.91
2021	Forecast	900.0	0	$ 52.59	$ 47,328,418	$ 129.70	$ -	$ 48.38
2022	Forecast	909.0	0	$ 54.16	$ 49,235,754	$ 129.70	$ -	$ 49.18
2023	Forecast	918.1	0	$ 55.79	$ 51,219,954	$ 129.70	$ -	$ 49.97
2024	Forecast	927.3	0	$ 57.46	$ 53,284,119	$ 129.70	$ -	$ 50.76
2025	Forecast	936.5	0	$ 59.19	$ 55,431,469	$ 129.70	$ -	$ 52.01
2026	Forecast	945.9	0	$ 60.96	$ 57,665,357	$ 129.70	$ -	$ 53.29
2027	Forecast	955.4	0	$ 62.79	$ 59,989,271	$ 129.70	$ -	$ 54.57
2028	Forecast	964.9	0	$ 64.68	$ 62,406,838	$ 129.70	$ -	$ 55.86
2029	Forecast	974.6	0	$ 66.62	$ 64,921,834	$ 129.70	$ -	$ 57.14
2030	Forecast	984.3	0	$ 68.61	$ 67,538,184	$ 129.70	$ -	$ 58.42
2031	Forecast	994.2	0	$ 70.67	$ 70,259,973	$ 129.70	$ -	$ 60.07
2032	Forecast	1004.1	0	$ 72.79	$ 73,091,449	$ 129.70	$ -	$ 61.71
2033 Q1-Q3	Forecast	625.9	0	$ 74.98	$ 46,927,901	$ 129.70	$ -	$ 63.36

[1] Actuals are based on actual costs. Forecast is in nominal dollars, based on weighted average annual Tranche 1 Energy Rate.

[2] 2013 to 2017 market prices are equal to the average hourly Mid-C Price, plus transmisison, losses, and foreign exchange. The updated forecast is from FBC's 2016 LTERP, Appendix D - Price Forecast and Rate Scenarios Tables. Table titled - Mid-C Electricity Price Forecast; "Base Case". Page 5. November 30, 2016, which includes transmisison, losses, and foreign exchange.

8.3 Based on the updated table, please indicate whether there would be insufficient room under the Tranche 1 energy cap of 1041 GWh for FBC to increase purchases from BCH PPA to cover load requirements from FBC self-generating customers in the short, medium and long term. Please explain why or why not.

Response:

FBC's ability to increase PPA Tranche 1 energy purchases depends on both its annual cap of 1,041 GWh, and the monthly energy requirements limited by the 200 MW maximum hourly purchase amount. During peak months, FBC may not be able to increase its PPA tranche 1 energy purchases, despite there being sufficient annual room to increase Tranche 1 energy usage.

In the short-term FBC would have some room in all months to increase its PPA Tranche 1 Energy purchases, but that is only forecast to last until 2025, based on current energy forecasts.

As discussed in FBC's 2016 Long Term Electric Resource Plan (LTERP)[7], starting in 2026, FBC begins to forecast energy shortfalls in November through February, and would not be able to

[7] FBC's 2016 LTERP, Response to BCUC IR 1.24.2.

meet the shortfall with either Tranche 1 or Tranche 2 energy. Should an SG customer increase FBC's energy demand during these months, and given FBC's preferred portfolio to become self-sufficient by 2025, FBC would be required to obtain additional resources to meet this load, despite there being room to increase PPA Tranche 1 Energy purchases at other times of the year. Should an SG customer increase FBC's demand, the winter energy shortfall would likely be experienced much sooner than 2026, depending on the extent of the increased demand.

Furthermore, FBC does not expect any capacity gaps based on its current load and resource balance, but a material increase of SG customer demand could result in FBC seeing capacity gaps sooner, which would further limit FBC's ability to meet the load with PPA purchases.

In addition, the updated Table 5 shown in BCUC IR 2.8.2 is based on current market price expectations and existing market contracts. Should market prices remain below the PPA Tranche 1 Energy Rate over the winter months, which are typically higher than the annual average rate shown in BCUC IR 2.8.2, then FBC would likely continue to make market purchases over the winter, and would be able to meet any SG customer new load with either PPA Tranche 1 energy purchases or market purchases. FBC expects that if additional SG load were to occur under high market price conditions, that there would be no significant room, if any, to increase Tranche 1 PPA purchases in the months when FBC could use such increased purchases.

The foregoing supports the FBC conclusion that regardless of the outcome of the SGP or the restrictions contained in section 2.5 of the PPA, it is highly unlikely that FBC would significantly increase its purchases under the PPA in response to any increases in load resulting from below-load third party sales on the part of SG customers.

C. CUSTOMER ELIGIBILITY

9.0 Reference: Exhibit B-1, p. 14; Exhibit A2-1, Canada's NAFTA Witness Statement from Dennis Swanson, dated August 22, 2014, paras. 57–75.

Wholesale customers

At paragraphs 57 to 75 of his August 22, 2014 witness testimony in the NAFTA proceeding, Mr. Swanson stated that in 2007 FortisBC was approached by Celgar and the City of Nelson (Nelson), the owner and operator of the Nelson Hydro municipal utility, with requests to become full load customers so that they could sell their existing self-generation to market, instead of continuing to use it for self-supply. FortisBC was aware that the 1993 PPA prohibited FortisBC from arbitraging BC Hydro's RS 3808 energy and that satisfying Celgar and Nelson's requests could effectively result in indirect arbitrage. Yet, FortisBC also believed that it had the obligation to serve its customers with the additional power absent a clear restriction preventing it from doing so. In that context, FortisBC assessed the likelihood of the BCUC approving the agreements negotiated with Celgar and Nelson at 50 per cent and notified its customers of these regulatory risks. FortisBC's agreement with Nelson was the first to be concluded and was filed with the BCUC on June 24, 2008. Despite the regulatory risks, FortisBC believed its agreement with Nelson would not draw attention from BC Hydro or other parties, such as MEM, because the small amount of energy involved was thought to be immaterial to BC Hydro. On August 21, 2008, FortisBC and Celgar concluded a supply agreement to serve Celgar as a full load customer (2008 Agreement). That agreement was filed with the BCUC on August 26, 2008. However, FortisBC withdrew that application shortly after BC Hydro, upon reviewing the Nelson Agreement, filed an application requesting that the BCUC amend the terms of the 1993 PPA to prohibit FortisBC from purchasing increased electricity under the 1993 PPA for the purpose of supporting arbitrage transactions by its self-generating customers.

On page 14 of the Application, FBC states:

> With regard to the potential for a Wholesale customer, whether connected at Transmission or Primary voltage, to take service pursuant to the policies discussed in the Application, discussions, consultations and Commission processes regarding the FBC SGP have to date focused solely on the provision of service to Industrial customers. Although the City of Nelson and the British Columbia Municipal Electrical Utilities (BCMEU) have been engaged and provided comment to the effect that the SGP should apply to Wholesale customers,15 no other party has addressed this possibility and the matter was not raised in the Stage I Decision. In the opinion of FBC there has been insufficient exploration of the potential application of the SGP to Wholesale customers, which have distinct issues, to conclude that an outcome of this Application will be a

SGP that applies universally. To be clear, the Company is not opposed to the future consideration of such issues, but believes that the application of the SGP currently being considered to Wholesale customers is beyond the intended scope of the current process. (Emphasis added)

9.1 Please confirm that the SGP does not apply to wholesale customers; i.e. both the SSO and SBBD aspects of the proposal. If this is not the case, please clarify.

Response:

Confirmed. The Eligibility definition in the SSO Guidelines specifies that,

> Eligible Customers for the purpose of this Tariff Supplement are those taking service on one of rate schedules 30, 31, 32, and 33 and that have clean and renewable self-generation facilities located on the customer side of the meter which are capable of meeting some or all of the electrical needs of the customer's plant.

The establishment of an SBBD is only relevant to use under RS37, which at the current time is only approved for customers also taking service on RS31.

Mr. Swanson's witness statement, as summarized above, highlights the similarities between the City of Nelson and Celgar's prior attempts to become full load customers of FBC in order to sell their existing self-generation to market. It also highlights that it is the agreement FBC negotiated with Nelson that triggered the application by BC Hydro to request the 1993 PPA Section 2.1 restrictions, which were later replaced by the New PPA Section 2.5 restrictions. In this context, please clarify:

9.2 Why does FBC believe there has been insufficient exploration of the potential application of the SGP to wholesale customers?

Response:

To date, SG related processes, including the Stand-by Rate and SGP, have been primarily focussed on service to Celgar, while ensuring that any resulting tariffs or policies would have broad application to industrial customers in general. FBC has indicated that wholesale customers have distinct issues that may make a difference in evaluating the appropriateness of extending provisions contained in the SGP to them, but had not specifically identified those distinctions or the issues that may arise, or indeed carried the analysis any further. For example,

the complexity involved regarding the City of Nelson/Nelson Hydro supply arrangements as discussed in the response to BCUC IR 2.17.1 are distinctly different than any arrangement between FBC and an industrial customer. In addition, the submissions of other parties regarding the status of a wholesale customer as a utility serving end-use customers is an aspect that requires consideration.

FBC is not prejudging the outcome of what a further analysis would be. It simply is not comfortable with applying any SGP to a wholesale customer at the present stage of analysis and input.

9.3 What are the distinct issues facing wholesale customers and why they are different from the issues facing large commercial customers, such that an FBC SGP cannot be applied to both large commercial and wholesale customers? For clarity, this question is not asking FBC to clarify the difference between an end-use and a wholesale customer but rather to clarify the difference in the issues facing them.

Response:

Please refer to the response to BCUC IR 2.9.2.

9.4 Why does FBC believe that the application of the SGP to wholesale customers is beyond the scope of the current process.

Response:

FBC believes that the application of the SGP to wholesale customer is beyond the scope of the current process for two reasons.

First, while not determinative, the focus to date of the SG related processes has seemingly been the treatment of industrial customers. This has been the backdrop to all submissions made by FBC except where specifically asked to respond to a wholesale consideration.

Second, FBC has understood this also to be the Commission's primary focus as well, as evidenced by, for example,

- The fact that the Stand-by Rate and the establishment of an SBBD was expressly required to apply to only industrial customers taking service on RS31, and

- The SSO construct, which is loosely analogous to the GBL concept, was derived in consideration of previous Commission Decisions such as that underpinning Order G-27-16. The Decision associated with Order G-27-16 notes, *"In the Application, FortisBC has proposed to use a GBL as a means to determine how much a customer must self-generate which consequently determines the level of service a customer with self-generation is entitled. Once approved by the Commission FortisBC's GBL Guidelines would ensure that a customer with self-generation receives fair treatment within the FortisBC service area vis-a-vis* ***other industrial customers*** *while the risk to other ratepayers is mitigated."* (emphasis added).

9.5 Please explain why the fact that "no other party than the City of Nelson and BCMEU provided comment to the effect that the SGP should apply to wholesale customers" should be given more weight to determine wholesale customer eligibility than the fact that "wholesale customers have provided comment to the effect that the SGP should apply to wholesale customers"?

Response:

FBC believes that other customers that may be impacted by the potential application of the SGP to wholesale customers should have an opportunity to comment on and explore the implications of that possible outcome. The weight afforded to the comments of all interested parties would need to be determined. However, in the opinion of FBC as a matter of procedural fairness all parties should be invited to provide input into whatever side-process or dedicated process the Commission convenes to consider the matter.

10.0 Reference: Exhibit B-1, pp. 10 & 13; Appendix B: SSO Guidelines Discussion Guide, p. 2; New PPA Decision, p. 104

City of Nelson

On Page 104 of the New PPA Decision, the Commission specified that "…FortisBC must establish Self-Generating customer policies for current and future customers at distribution and transmission voltage."

Item 1a in Table 2-1 (p. 10) of the Application states: "The Comprehensive SGP needs to apply to both current and future customers."

On page 13 of the Application, FBC states that "within the context of the SGP, FBC considers *current* (in relation to customer) to denote a customer that currently has self-generation, while the term future could mean…"

FBC also states that it has three customers with self-generation above the net-metering generation cap:

1. Zellstoff-Celgar Limited Partnership (Celgar) – Celgar takes service on Rate Schedule 31 – Large Commercial Service – Transmission, as well as RS 37 - Large Commercial Service – Stand-by Service.

2. Tolko Industries Ltd. (Tolko) – Tolko takes service on RS 30 – Large Commercial Service – Primary

3. City of Nelson/Nelson Hydro (Nelson) – Nelson takes service on a wholesale rate schedule (RS 41) and is connected at both Transmission and Primary voltages.

10.1 Please confirm that Nelson meets FBC's definition of "current customer" per the definition found on page 13 of the Application. If not, please clarify the definition of "current customer."

Response:

The category of customers to which the SGP applies is addressed more broadly in the Application and by the context. The City of Nelson/Nelson Hydro certainly is a customer of FBC, currently has self-generation and is a customer with self-generation above the net metering generation cap. However, as discussed in the response to BCUC IR 2.9 series above, FBC has not drafted the current SGP with the intent that it apply to wholesale customers, whether current or not.

10.2 Please confirm that Nelson takes service at both transmission and distribution voltages.

Response:

Confirmed.

10.3 In light of the Commission's statements that "FBC must establish Self-Generating customer policies for current and future customers at distribution and transmission voltage" and that "the Comprehensive SGP needs to apply to both current and future customers," please clarify why FBC excluded self-generating wholesale customers from its SGP.

Response:

Please refer to the responses to BCUC IRs 2.9.1 to 2.9.5 for a discussion of this topic.

11.0 Reference: Exhibit B-1, p. 14; Stage I Decision, pp. 15–16 & 46;

British Columbia Municipal Electrical Utilities

On page 14 of the Application, FBC states: "Although the City of Nelson and the British Columbia Municipal Electrical Utilities (BCMEU) have been engaged and provided comment to the effect that the SGP should apply to wholesale customers,15 no other party has addressed this possibility and the matter was not raised in the Stage I Decision." (Emphasis added)

On pages 15-16 of the Stage I Decision, the Commission states:

> In the New PPA Decision (Order G-60-14), the Commission noted BCMEU's submission that there has been a lot of focus on the negative impacts of a self-generating customer serving its own load with embedded cost power while exporting its own self-generation; however, there has been little discussion of the benefits that could arise from an economic development perspective, if the role and responsibilities of self-generators was more clearly defined.
> …
>
> FortisBC was directed to address the benefits of self-generation by Order G-60-14 in order to provide a response to BCMEU's comments. (Emphasis added)

On page 46 of the Stage I Decision, the Panel states:

> In the Stage II filing FortisBC needs to evaluate, in addition to any approaches they may propose, the following three alternate approaches (which could also apply to idle) to setting the GBL:
> …
>
> (iii) Setting the GBL based on the method put forward by BCMEU whereby new generation could be considered new and have a designated GBL of 0 MW in year 1 and a linear scale so that by year 30 the GBL on that generation is equal to full nameplate." (Emphasis added)

11.1 In light of the above two excerpts from the Stage I Decision, please clarify what FBC means by "the matter was not raised in the Stage I Decision."

Response:

The matter referred to by FBC was whether or not the SGP should apply to wholesale customers. The references provided in the preamble to this IR are generic to the identification of net-benefits of self generation and to alternate means of establishing a GBL (SSO) but did not assume that these were being discussed in the context of service to a wholesale customer.

11.2 Given that in developing its SGP FBC was directed to address the potential benefits of SG in order to provide a response to BCMEU's comments and concerns and to evaluate the approach proposed by BCMEU to set the GBL, please discuss the rationale for proposing an SGP that would not apply to wholesale customers.

Response:

Please refer to the response to BCUC IR 2.11.1. The BCMEU comments were provided in the context of the Application, but not directed specifically to service to wholesale customers.

12.0 Reference: Exhibit B-1, Appendix D, FBC Response to SSO Intervener Submissions, p. 6

BCMEU

FBC provides the following response to BCMEU's comment that the Self-Generation Policy needs to apply to wholesale and Transmission customers:

BC-MEU Comment Responses	
2.3	**Section indicates that the eligible customers are Industrial under rate schedules 30 and 31. We put forth that Self Generation needs also to apply to Wholesale and Transmission customers. For example, it was a Wholesale customer, Nelson that made self-generation exports in 2008 – 2009.**
	FBC Response: To date, the FBC SGP related Applications have focused on Industrial RS 30 and RS 31 customers (RS 31 are Transmission customers). In the opinion of the Company, while the SGP *could* apply to Wholesale customers, the nature of the Wholesale customer is sufficiently different from end-use customers that FBC believes that further exploration of any potential issues should be conducted as a separate matter before the Commission.

12.1 If FBC believes that "the SGP *could* apply to wholesale customers," please explain why this hearing is not the appropriate venue to explore any issues that could pertain to the application of the SGP to wholesale customers.

Response:

In the view of FBC, the scope of this process could be expanded to include a discussion of any issues related to providing either an SSO or back-up supply to wholesale customers; however, FBC believes some accommodation would be required in the regulatory schedule to allow for submissions from all parties regarding any issues that could be identified and explored which are particular to wholesale customers' participation in the SGP. Given the length of time that has already passed, FBC is reluctant to further extend the current process.

12.2 Please explain why it would not be more efficient from a regulatory perspective to explore the issues surrounding self-generation by wholesale customers in the same proceeding.

Response:

Please refer to the response to BCUC IR 2.12.1.

13.0 Reference: Exhibit B-1, pp. 10, 14

Changing market conditions

Item 1b in Table 2-1 of the Application states: "The Comprehensive SGP needs to identify how long the policy will be in place and how often it will be reviewed or updated."

FBC states on page 14 of the Application: "Turning to another point (though still within the ambit of discussing eligibility), the Company notes that any self-generating customer whose conduct causes a reduction in revenue to FBC without at least an equal reduction in power purchase costs does not provide a net benefit." (Emphasis added)

13.1 Please explain how FBC's SGP will apply to self-generators whose conduct causes a reduction in revenue to FBC greater than the avoided power purchase costs.

Response:

FBC has not proposed any variation in the application of the SGP based on the impact of the SG customer's activities on the overall revenue and/or cost-of-service to the Company. The power purchase costs may change over time and while in the current circumstance FBC expects that supplying additional power to an SG customer will result in rate mitigation for customers in general, that may not always be the case.

13.2 Is FBC's comprehensive standalone SGP policy robust enough to withstand changing market conditions? Please consider the following scenarios in the response:

i. A scenario where FBC's avoided power purchase costs moves lower than FBC's retail rates for self-generators.

ii. Scenarios where the market rate for generation is at, below, or above the self-generating customer's FBC tariff rate.

iii. Scenarios where the self-generator's cost of production is at, below, or above the self-generating customer's FBC tariff rate.

Response:

The SGP as structured will work regardless of the state of the conditions listed. This is because the FBC SGP is not dependent on the prevailing market rate for power, the average embedded cost of power, or the SG customer's cost of production. Over the longer term, the market rate

for power may have some impact on the value placed on the Long-Run Marginal Cost (LRMC) for avoided power purchases as determined in a subsequent LTERP, which is an input into the calculation of the SBBD reduction.

14.0 Reference: Exhibit B-1, pp. 4 and 14; Stage I Decision, p. 31

Transmission and distribution customers

On page 4 of the Application, FBC states that it believes that the Stand-by Billing Demand remains the appropriate mechanism for a future customer that will not be making third party sales (Scenario 2 customers), or that will do so only after having offset its load (Scenario 3 customers), to receive a share of the net-benefits attributable to its self-generation.

On page 14 of the Application, FBC states:

> While the Commission determined in the New PPA Decision that the FBC SGP needs to apply to customers served at both Transmission and Distribution (Primary) voltages, it has also determined that the Company's Stand-by Service is restricted to customers taking service on Rate Schedule 31. It will therefore be necessary, prior to FBC fully implementing its proposed SGP, to gain Commission approval of an applicable Primary Stand-by rate and the addition of Stand-by Billing Demand (SBBD) as a billing determinant in RS 30. FBC discusses this further in Section 6.

14.1 If the Commission does not approve the use of the SBBD as the mechanism to share the net benefits of self-generation for Scenario 2 and 3 customers, please confirm that FBC would not need to gain Commission approval of a Primary Stand-by rate and the addition of SBBD as a billing determinant in RS 30. If this is not the case, please explain why not.

Response:

As discussed in the response to BCUC IR 2.6.1, the SBBD had been identified by the Commission in Order G-46-15 as a mechanism by which the net-benefits of self-generation will be recognized for future customers with self-generation. In the context of the Stand-by Rate process, this would have applied only to industrial customers taking service at a transmission voltage (RS31). However, should the SG policies, including Stand-by Service, be extended to distribution-connected industrial customers, it would make sense that the same practice would follow.

The linkage between the SBBD and the Primary Stand-by Rate drawn in the question is not clear to FBC. FBC offers the following observations:

- If the Commission does not approve the use of the SBBD as the mechanism to share the net benefits of self-generation for Scenario 2 and 3 customers, then some other means will need to be devised to recognize those net-benefits (assuming that such

recognition is still to be pursued) not only for distribution-connected customers, but for future transmission-connected customers as well.

- If FBC is to gain approval of a Primary Stand-by Rate, then unless it is structured differently than the existing RS37, a SBBD would be required as part of RS30. However, as noted above, it would need some other means of being set.

- If FBC does not require a Primary Stand-by Rate (which would seem contrary to the requirements of this Application), then no SBBD would be required in RS30.

14.2 If the Commission approves the use of the SBBD as the mechanism to share the net benefits of self-generation for these customers, please clarify whether FBC would be able to implement its SGP before approval of an applicable Primary Stand-by rate and the addition of SBBD as a billing determinant in RS 30 or whether it would only be able to implement it partially. Please discuss the pros and cons of both options.

Response:

The use of the SBBD in the manner applied for as a means to recognize the net-benefits of self-generation is only one aspect of the SGP currently before the Commission.

Approval of this aspect in isolation would allow for future transmission-connected SG customers (of which FBC is not aware) to take service immediately, and any current or future distribution-connected industrial customers to take Stand-by Service only once a Primary Stand-by Rate option is also approved.

If the options being discussed are simply whether or not the SBBD is approved for use as discussed in the Application then the advantage to having such approval is simply the availability of the additional services it would enable.

14.2.1 Please indicate how long after a decision is issued in this Stage II proceeding FBC expects to file its application for approval of a Primary Stand-by rate and the addition of SBBD as a billing determinant in RS 30.

Response:

FBC does not view the required revisions as complicated and could file revised tariff pages within 30 days of a decision.

14.2.2 What type of regulatory process would FBC propose for the review of that application?

Response:

FBC does not believe that a compliance filing of this type would require any regulatory process.

14.3 If the Commission directed FBC to include wholesale self-generating customers in its SGP, and if the Commission approved the use of the SBBD mechanism for Scenario 2 and 3 customers, would FBC also need to file an application to gain approval of an applicable wholesale Stand-by rate and the addition of a SBBD as a billing determinant in RS 41? Please explain why or why not.

Response:

In order to extend either an SSO or Stand-by Service to an RS41 customer, FBC would require Commission approval of the applicable rate. This could be accomplished either through the approval of a generally available published tariff (including the mentioned revisions to RS41) or through a separate wholesale agreement. Given that RS41 applies solely to City of Nelson/Nelson Hydro the impact would be the same under either approach.

15.0 Reference: Exhibit B-2, BCUC IR 1.1.1, Attachment 1.1, Section 1, p. 1

FBC SGP

In response to BCUC IR 1.1.1, FBC stated: "The purpose of this document, the FortisBC Inc. Policies Regarding Self-Generation (Self-Generation Policy or SGP), is to provide information to guide customers or prospective customers that are considering making investments in self-generation in the FortisBC Inc. (FBC) service area."

15.1 Please clarify whether the underlined statement effectively excludes the existing self-generation of FBC's existing customers who may not make further investments in self-generation.

Response:

The noted IR response was not intended to infer that any element of the SGP is not available to current customers with self-generation. The specifics of service to such customers are contained in the SGP itself.

15.1.1 If the existing self-generation of existing self-generators is excluded from the FBC SGP, is FBC proposing to address these customers on a case-by-case basis? If so, please discuss the pros and cons of doing so versus attempting to include them under the SGP.

Response:

Please refer to the response to BCUC IR 2.15.1.

16.0 Reference: Exhibit B-2, BCUC 1.1.1, Attachment 1.1, Section 2, p. 1; BCUC 1.1.2, Section 12, p. 5; Exhibit B-1, Section 6.1, p. 41

FBC SGP

In BCUC 1.1.2, FBC stated that it "provided a discussion in the Stage II Application Section 6 of changes to current practices and tariff documents that will be required once the SGP is approved. These changes to any related documents, once complete, will be complementary to the SGP, but do not form part of the SGP and are not mentioned within it."

In Section 6.1 of the Application, FBC explains that:

> [its] existing Stand-by Service rate schedule (RS 37) is only available to a customer contracted to receive service under Rate Schedule 31 (RS 31). Given that the Commission has determined that FBC must establish self-generating customer polices for customers served at both distribution and transmission voltage, FBC will need a stand-by rate for distribution customers so that a SBBD can be established for them as well. Without a stand-by rate for distribution customers the net benefits of self-generation cannot be accounted for in the case of distribution customers that choose service without an SSO.

The FBC SGP defines Eligible Customers and Eligible Technologies as follows:

"Eligible Customers – Eligible Customers are served under Rate Schedule 30 – Large Commercial Service – Primary, or Rate Schedule 31 - Large Commercial Service – Transmission. Eligible Customers may also be taking service under Rate Schedule 37 – Stand-by and Maintenance Service."

"Eligible Technologies – For the purpose of the SGP, Eligible Technologies are generation resources that are clean or renewable as defined in the Clean Energy Act and regulations as may be amended from time to time."

16.1 Please confirm that it is FBC's intention to apply to the Commission to make RS 37 available to a customer contracted to receive service under RS 30, rather than establishing an entirely new Rate Schedule for Stand-by and Maintenance Service for RS 30 customers.

Response:

Confirmed. The intention upon filing the SGP was that revisions be made to the existing RS37 as necessary to allow the service to be extended to RS30 customers.

FBC has no objection to filing a separate rate schedule specific to primary-connected customers if, after discussions with the Commission and impacted customers, the preference is to do so.

16.1.1 If not, please confirm that the definition of Eligible Customers within the SGP would need to be amended to recognize the new Stand-by rate schedule for distribution customers.

Response:

Please refer to the response to BCUC IR 2.16.1.

16.2 If FBC were directed to include wholesale customers under the SGP, how would this affect the definition of Eligible Customers?

Response:

Assuming that all wholesale customers would become eligible, including those served on RS40 and RS41, the definition of Eligible Customers would need to be updated at a minimum to refer to the additional rate schedules. Further, other changes to the definition might potentially be required depending on how wholesale customers would fit into the SGP as a whole; if it was determined that the scope of the SGP should be expanded along these lines, this would require further analysis.

16.3 For each of FBC's current customers with self-generation, as described on page 13 of the Application, please describe the generation resource(s) of the existing self-generation and state whether each would meet the Eligible Technologies definition.

Response:

The Celgar and Tolko facilities are biomass resources, while the City of Nelson/Nelson Hydro utilizes hydro generation. All would be Eligible Technologies.

However, again, the SGP is not drafted with a view to its application to wholesale customers like the City of Nelson/Nelson Hydro. FBC has not examined whether any adjustment to the definition of Eligible Technologies would be required by the inclusion of wholesale customers.

D. CUSTOMER SCENARIOS UNDER THE SGP

17.0 Reference: Exhibit B-1, pp. 3 & 13 and Table 2-1, p. 10

Existing customers

Item 1a in Table 2-1 states: "The Comprehensive SGP needs to apply to both current and future customers."

On page 13, FBC states that it currently has three customers with self-generation above the net-metering cap of 50 kW: Celgar, Tolko and Nelson.

On page 3, FBC states:

> There are therefore three types of customer scenarios that the Company's comprehensive SGP must address:
>
> 1. Customers that sell self-generation to third parties that is not in excess of load (which may be simultaneously taking power from FBC) (**Scenario 1**);
>
> 2. Customers that use self-generation to off-set load but are not selling any self-generation to third parties (**Scenario 2**); and
>
> 3. Customers that sell self-generation to third parties but only after off-setting their full load (i.e., that is in excess of load) (**Scenario 3**).

17.1 Please indicate which scenario currently describes each of these three customers.

Response:

Celgar and Tolko fall under Scenario 3 in that no power is being purchased from FBC for resale to third parties. However, if Scenario 1 is expanded to include power purchased from BC Hydro as well as FBC, then Celgar would fall under Scenario 1 as BC Hydro both buys power from and sells power to Celgar under the current contract between Celgar and BC Hydro.[8]

The City of Nelson/Nelson Hydro is more complex as their agreement with BC Hydro requires a certain portion of the Nelson generation to be sold to BC Hydro, regardless of the City of Nelson/Nelson Hydro load. The amount the City of Nelson/Nelson Hydro needs to sell is related to the water available to the City of Nelson/Nelson Hydro to generate power. These

[8] The process by which Celgar occasionally purchases power from BC Hydro is described by Celgar in its response to FBC IR 9.0 a, b, and c in Exhibit B1-11 in the *2011 Zellstoff Celgar Limited Partnership Complaint Regarding the Failure of FortisBC and Celgar to Complete a General Service Agreement and FortisBC's Application of Rate Schedule 31 Demand Charges ~ Project No. 3698636* process.

arrangements are of long-standing practice and represent the type of complex utility to utility negotiations that are required to resolve water rights issues at the utility to utility level, as well as why the current process may not be well suited to consider wholesale customers. Therefore, if the SGP were to apply to wholesale customers and a determination were required, the City of Nelson/Nelson Hydro would be a Scenario 1 customer overall but a Scenario 3 customer for all generation that is not obligated to be sold to BC Hydro.

17.2 For each customer, please indicate whether this classification has remained the same since Order G-38-01 was issued. If not, please indicate when change(s) in classification occurred.

Response:

The scenarios outlined in the Application were developed for the purpose of the SGP and are only relevant in the context of the FBC SGP. They are not intended to be applied historically or to describe operations on a short term (i.e., hourly) basis. They are intended to describe the long-term normal operating status of a customer that intends to utilize an aspect of the SGP such that the appropriate treatment under the SGP can be applied.

If it were to apply the scenarios outside the context for which intended under the SGP, FBC believes that the status of each of these three customers has not changed since Order G-38-01 was issued with the exception of the City of Nelson/Nelson Hydro which sold power to third parties not net of load for a period of time in both 2008 and 2009 and so if the SGP applied to it, would have been in Scenario 1 rather than 3 during that time. In addition, when Celgar began selling to BC Hydro, it may be correct to classify Celgar as having changed from Scenario 3 to Scenario 1 in a limited manner.

17.2.1 For Tolko, which became a FBC customer after FBC purchased the City of Kelowna assets, please indicate what scenario(s) would have described Tolko from 2001 to 2013.

Response:

Please refer to the response to BCUC IR 2.17.2.

17.3 Please describe any attempt by any of these three customers, including Tolko, to operate under Scenario 1 since Order G-38-01.

Response:

Each of Celgar, Tolko and the City of Nelson/Nelson Hydro has at times been engaged in lengthy processes before the Commission that may have resulted in sales to a third party, not in excess of load, which would have resulted in increased load to be served by FBC. Each of these processes is a matter of public record so while FBC briefly describes each below, it will not do so in detail.

On March 2, 2011 Tolko sought an order requesting that the Commission reaffirm its ability to sell power generation in excess of the first 2 MW of generation in each hour as part of the regulatory process associated with the *Tolko Industries Ltd. Application to Reaffirm Ability to Sell Power pursuant to Commission Order G-113-01 Incremental Power Sales from Tolko-Kelowna Division* proceeding. This process was concluded by Commission Order G-198-11.

The process surrounding the City of Nelson/Nelson Hydro-FBC agreement to facilitate an arrangement similar to Scenario 1 was described in the witness statement filed as Exhibit A2-1. This process was concluded by Commission Order G-48-09.

The issue of a GBL for Celgar, set at a level that would allow for the simultaneous purchase of embedded cost power from FBC and sales to a third party, has been a feature in a number of processes before the Commission. An example of such a process is the 2011 *Zelstoff* (sic) *Celgar Limited Partnership Complaint Regarding the Failure of FortisBC and Celgar to Complete a General Service Agreement and FortisBC's Application of Rate Schedule 31 Demand Charges.* In this process, Celgar identified its preferred GBL level of 1.5 MWa.

The impact of such an arrangement was described by Celgar in response to Commission IR 1.9.2 (Exhibit B1-11 in the process) as follows:

> A FortisBC GBL will not affect the physical flow of electricity, so no change is required to the energy flow arrangement. The effect of a FortisBC GBL will be a change to the accounting procedures to address the Celgar generation that is less than the BC Hydro GBL (40 MW) but above the FortisBC GBL. <u>This portion of energy would be purchased from FortisBC, with a matching schedule from Celgar to the purchaser of Celgar's generation.</u> (Emphasis added)

17.4 If any of these customers found themselves in Scenarios 1 or 3 at any point in time since 2001, please indicate, confidentially if required:

i. Who the customer was selling energy to;

ii. Under what contract or energy purchase agreement was the customer selling energy to;

iii. How much energy was sold by the customer under that contract/agreement; and

iv. What were the terms and price of the contract/agreement.

Response:

A small portion of this response is redacted pursuant to Rule 18 of the Commission's Rules of Practice and Procedure and s. 71(5) of the *Utilities Commission Act*. The redaction has been made as it contains commercially sensitive information (specifically in relation to the price that FBC pays to the City of Nelson/Nelson Hydro under present arrangements and FBC's view with respect to potential new pricing-related terms) that, if disclosed, may prejudice negotiations with other parties in future contract negotiations, which, in turn, will harm the Company's ratepayers and would not be in the public interest. FBC continues to operate in a competitive environment with respect to its purchases from the wholesale market. The price that FBC pays to the City of Nelson/Nelson Hydro has not previously been disclosed publicly in any Commission proceedings. A confidential version of this response is being filed with the Commission under separate cover.

FBC repeats its comment in the response to BCUC IR 2.17.2 that the scenarios were developed for use in the SGP and, as such, it questions the premise of this question. However, FBC provides the following information by way of background.

Historically Tolko sold its excess generation to the City of Kelowna (i.e., prior to the acquisition of the City's utility assets by FBC) at a rate equivalent to the retail rate under which Tolko received service. Subsequent to FBC's purchase of the City's utility assets, Tolko initially sold all excess power to FBC, but now sells power primarily to BC Hydro under its Standing Offer Program (SOP), with occasional sales of power to FBC when it has excess generation that is not eligible for the SOP. FBC purchases power from Tolko at a rate that is equal to the lower of the current BC Hydro 3808 Tranche 1 energy rate, or the Intercontinental Exchange (ICE) Mid-C day-ahead index price less 2 mils. FBC is not aware of the rate paid to Tolko by BC Hydro (although the Standing Offer prices (and adjustment factors) are publicly available).

FBC has historically purchased excess generation from Celgar either at the prevailing BC Hydro 3808 rate, or more recently, on similar terms as Tolko. However, for a number of years after 2001, Celgar engaged the services of a power marketer to sell their surplus power on a net of

load basis to the wholesale power markets. FBC does not believe the details of such transactions are relevant to this process and obtaining them would require significant effort. Celgar now has an EPA with BC Hydro for all generation in excess of 40MW. In the event that Celgar has generation above its load requirements but below 40 MW, or otherwise not eligible for sale to BC Hydro, FBC purchases the energy at the rate noted above.

The SGP was not drafted to apply to wholesale customers (such as the City of Nelson/Nelson Hydro) and therefore the details sought here are, respectfully, not relevant to the present process. Without in any way detracting from that point, FBC provides the following information for background. The City of Nelson/Nelson Hydro typically purchases energy from FBC to fulfil its load requirements, in order to supplement what it generates at its own generation facility on the Kootenay River. When there is sufficient water in the Kootenay River system, the City of Nelson/Nelson Hydro has the right to increase generation. A portion of this increased generation must be sold to BC Hydro if BC Hydro so elects to receive it, or else the City of Nelson/Nelson Hydro is free to use it to meet load or sell any surplus to FBC. FBC will purchase any surplus generation that is not required to supply City of Nelson/Nelson Hydro load, or be sold to BC Hydro. This typically only occurs during the overnight hours during spring run off. In recent years, FBC has been paying to the City of Nelson/Nelson [redacted] FBC is currently working with the City of Nelson/Nelson Hydro to update its agreements, [redacted]

However, for a period of time in 2008 and 2009, the City of Nelson/Nelson Hydro engaged the services of a power marketer to sell generation to the wholesale power markets that otherwise would have been required to meet load. The City of Nelson/Nelson Hydro load was then met by FBC. FBC does not believe the details of such transactions are relevant to this process and obtaining them would require significant effort.

17.5 Please explain how the proposed SSO Guidelines would affect Celgar in relation to:

i. The status quo in terms of quantity of energy supplied by FBC to Celgar; and

ii. The interest of other ratepayers.

Response:

FBC and Celgar have negotiated a term sheet that establishes an SSO for Celgar in a manner that is consistent with the proposed SSO Guidelines. However, if the proposed SSO Guidelines are not approved by the Commission, the SSO agreed to with Celgar will not be used.

The SSO agreed to with Celgar, barring any other impediments to Celgar being able to sell power that is not net-of-load, would enable Celgar to sell generation output to a third party that is below its load but above the SSO, while at the same time purchasing power from FBC.

Neither the approval of the proposed SSO Guidelines, nor the establishment of an SSO with Celgar will have any impact on either the amount of power sold by FBC or other ratepayers, unless Celgar actually elects to take service pursuant to its Commission approved SSO.

If Celgar elects and is able to utilize its SSO to the full extent possible, then FBC expects that approximately half of the current Celgar load would be supplied by FBC. FBC will seek to obtain the necessary power in the most cost-effective, reasonable manner taking into account the circumstances at the time. The impact on other ratepayers will depend entirely on whether FBC is able to resource the additional load at a total cost that is less than the additional revenue provided by the incremental sales to Celgar.

17.6 Please explain how the proposed SSO Guidelines would affect Tolko in relation to:

i. The status quo in terms of quantity of energy supplied by FBC to Tolko; and

ii. The interest of other ratepayers.

Response:

The situation with Tolko is, in principle, the same as it is with Celgar, as described in the response to BCUC IR 2.17.5. Since Tolko has not expressed an interest in being served on other than a NOL basis, Tolko's reaction and the resulting the impact to other ratepayers may be different.

17.7 Please explain how the proposed SSO Guidelines would affect Nelson in relation to:

i. The status quo in terms of quantity of energy supplied by FBC to Nelson; and

ii. The interest of other ratepayers.

Response:

The proposed SSO Guidelines are not applicable to the City of Nelson/Nelson Hydro and would not therefore result in any changes from the status quo.

18.0 Reference: Exhibit B-2, BCUC 1.1.1, Attachment 1.1, Section 6.2, p. 3; Appendix A, SSO Guidelines, Section 8.1, p. 4; Exhibit B-1, Section 2, p. 3

Purchases by FBC

In Section 2 of the Application, FBC describes Scenario 1 customers as those that sell self-generation to third parties that is not in excess of load (which may be simultaneously taking power from FBC) and Scenario 3 customers as those that sell self-generation to third parties but only after off-setting their full load (i.e., that is in excess of load).

In Section 8.1 of the SSO Guidelines, FBC states that "a self-generator that intends to engage in third party sales of self-generation, not in excess of load, will be purchasing power from FBC to serve plant load at the same time that it is selling power that, in the absence of a contractual agreement, would otherwise be consumed by the customer's plant."

In Section 6.2 of the SGP, FBC states that:

> the purchase of self-generation output by FBC will be reviewed on a case-by-case basis just as FBC would consider a new source of supply from any other resource. […] FBC will assess any self-generation supply that is brought forward in light of FBC's resource planning requirements as discussed above. In order for the self-generating customer to incorporate this assessment into its decision, it should approach FBC early in the planning process such that the resource can be examined in light of other supply options available. (Emphasis added)

18.1 When reviewing the purchase of self-generation output on a case-by-case basis, please clarify whether FBC would treat customers in Scenario 1 and Scenario 3 differently. Please discuss.

Response:

Once an SG customer has had an SSO approved by the Commission, any SG generation output that is made available for sale to a third party would be subject to the same evaluation by FBC as generation output that is available because it is in excess of the customer's load.

18.2 Please clarify how FBC could consider the output of the self-generating customer in Scenario 1 to be a "new source of supply" when FBC would have first sold the power to that customer.

Response:

If an SG customer had historically only been able to sell generation that was in excess of load, but due to the establishment of and election to utilize a Commission approved SSO has additional output available for sale, the additional amount would be a new source of supply to FBC.

18.3 Please confirm that if FBC were to find "selling to Scenario 1 customers" cost-effective, it would have to sell the above-SSO power to the SG customer at a rate higher than the contract price in an Energy Purchase Agreement (EPA) to purchase it back. If not, please explain why not.

Response:

Not confirmed. FBC will attempt to meet all load obligations in the most cost effective manner that is reasonable. The cost effectiveness of buying power has no relation to the price received from the SG customer to serve load. It is solely based on the competing alternatives to source power to meet that portion of FBC's load resource balance.

18.3.1 If confirmed, please clarify what incentives the self-generator would have to enter into such arrangements with FBC.

Response:

Please refer to the response to BCUC IR 2.18.3.

18.3.2 Please discuss the likelihood of this scenario happening.

Response:

It is unclear to FBC whether the scenario being referred to in the question is, a) that FBC considers the purchase of the SG output in the context of the LTERP, or b) actually arranges for the purchase of the output.

In the first case a), if an SG customer approaches FBC regarding the purchase of the output then the "a)" process would be the process in all cases.

For the second case b), FBC can only access the possibility of this scenario happening in the context of actual power that is available for third parties to purchase. In the absence of that, FBC does not have sufficient information to determine how likely it is that it will be able to enter into acceptable supply arrangements with SG customers.

FBC expects a SG customer will only be making power available for sale to third parties if the SG customer can receive a premium over what they expect to pay to FBC. Such a premium may be possible if general wholesale market prices substantially increase such that they are higher than utility rates or the SG customer can receive a premium for their power due to its characteristics.

18.4 Please clarify what FBC mean by "early" when stating that the customer should approach FBC early in the planning process.

Response:

Ideally, a customer should approach FBC as soon as it is considering the sale of self-generation output and has identified FBC as a potential purchaser. The inclusion of this statement in the SGP is intended to prompt the customer to engage FBC as soon as possible such that both parties have as much time as possible to assess opportunities.

19.0 Reference: Exhibit B-2, BCUC 1.1.1, Attachment 1.1, Section 8, pp. 4-6; Exhibit B-1, Section 2, p. 3

Proposed uses of Self-Generation

In Section 8 of the SGP, FBC states that:

> The treatment of self-generation varies depending on the use to which the self-generation output will be put relative to the plant load of the associated industrial facility. FBC has identified three distinct scenarios that require different treatment under the SGP, each of which is described below, in Sections 8.1, 8.2.2 and 8.2.3. A self-generator may change its intent with respect to its self-generation, thereby moving from one scenario to another, but will only be in one scenario at a time. (Emphasis added)

Section 8.1 relates to customers with third party sales of self-generation not in excess of load, that can only engage in third party sales of self-generation not in excess of load through the establishment of an SSO. Section 8.2.2 relates to customers that off-set plant load (with or without third party sales) utilizing RS 37. Section 8.2.3 relates to customers that off-set plant load (with or without third party sales) not utilizing RS 37 or an SSO. These three scenarios are not the same three customer scenarios described at page 3 of the Application.

19.1 Please confirm that Section 8.1 of the SGP applies to Scenario 1 customers.

Response:

Confirmed.

19.2 Please confirm that Section 8.2.2 of the SGP applies to Scenario 2 and Scenario 3 customers. If not, please explain why not.

Response:

Section 8.2.2 of the SGP applies to Scenario 2 and Scenario 3 customers. It also may apply to Scenario 1 customers that elect to utilize Back-up service for that portion of load that is self supplied.

19.3 Please confirm that Section 8.2.3 of the SGP also applies to Scenario 2 and Scenario 3 customers. If not, please explain why not.

Response:

Section 8.2.3 applies to Scenario 2 and 3 customers, as well as Scenario 1 customers.

In Section 8.2.2, FBC states that "RS 37 is available only to those self-generators that normally supply all or some portion of load from self-generation and is strictly for the continued operation of customer facilities at times when the Customer-owned generation is unavailable."

19.4 Please confirm that, under Scenario 2, a customer's self-generation output could either be equal or less than its load.

Response:

Confirmed.

19.5 Using examples, please illustrate how a Scenario 2 customer operating under Section 8.2.3 can move to operating under Section 8.2.2 to being a Scenario 1 customer operating under Section 8.1.

Response:

The Company understands the question to be,

Using examples, please illustrate how a Scenario 2 customer operating under Section 8.2.3 can move to operating under Section 8.2.2 and then move to being a Scenario 1 customer operating under Section 8.1.

A Scenario 2 customer is a customer that uses self-generation to off-set load but is not selling any self-generation.

A customer operating under Section 8.2.3 is not utilizing an SSO or taking service on the Stand-by Rate RS37. Section 8.2.2 describes a customer taking service on RS37.

RS37 is a currently -approved rate offered by FBC, and nothing in the SGP application requires approval in order for this portion of the service transition described in this information request to occur today. However, in the absence of Commission approval of the Company's proposal regarding the recognition of net-benefits through the setting of the Stand-by Billing Demand (SBBD), some other means of establishing this billing parameter would be required prior to gaining Commission approval of the resulting General Service Agreement (GSA).[9]

Once a request is made for service under RS37, FBC and the customer would need to establish those contractual items required by RS37, including a Stand-by Demand Limit (SBDL), SBBD and a Contract Demand in the underlying rate schedule.

Assuming that the SGP is approved as filed, this process would follow the calculation for SBBD shown in the Application beginning at Section 4.1.2.

If this customer then chose to begin selling power that is not in excess of load (Scenario 1) it would require an SSO determined in accordance with the SSO Guidelines.

The customer could remain on RS37; however, the billing determinants would need to be revisited to ensure that Stand-by power is only available to replace power normally used to serve load. In addition, the customer would need to indicate whether the net-benefits are to be recognized in the SSO or the SBBD as only one method can be utilized.

19.6 Using examples, please illustrate how a Scenario 3 customer operating under Section 8.2.3 can move to operating under Section 8.2.2 to being a Scenario 1 customer operating under Section 8.1.

[9] Special Provision 1 in RS 37 reads, *"Stand-by Billing Demand (SBBD) – Billing under this rate schedule requires the establishment of a SBBD, expressed in kVA. SBBD for a customer using this rate schedule will be set at an amount between zero and 100 percent of the Customer's SBDL and is to be used in the determination of the Wires Charge in RS 31. The SBBD is to be agreed to between the Customer and the Company and is specified in the GSA between the Company and the Customer. If the Customer and the Company cannot come to an agreement, the SBBD will be set by the BCUC."* FBC assumes that in the absence of any Commission approvals in this process it could still submit a SBBD for approval.

Response:

The Company understands the question to be: Using examples, please illustrate how a Scenario 3 customer operating under Section 8.2.3 can move to operating under Section 8.2.2 and then move to being a Scenario 1 customer operating under Section 8.1.

A Scenario 3 customer is an SG customer with third party sales of self-generation but only after off-setting their full plant load.

A customer operating under Section 8.2.3 is not utilizing an SSO or taking service on the Stand-by Rate RS37. Section 8.2.2 describes a customer taking service on RS37. Taking service on RS37 would occur as per the existing tariff. The current Application has no impact on a move of this nature to RS37 service.

The subsequent change to being a Scenario 1 customer would be as described in the response to BCUC IR 2.19.5.

19.7 Using examples, please illustrate how a Scenario 1 customer operating under Section 8.1 can move to being a Scenario 2 customer operating under Section 8.2.2 or Section 8.2.3.

Response:

A Scenario 1 customer is a SG customer with third party sales of self-generation not in excess of load. In order to do this, the customer would require an SSO.

If this customer wished to begin operating under Scenario 2 (a customer that uses self-generation to off-set load but not selling any self-generation), it could elect to do so by providing the notice required by the SSO Guidelines, Section 12.3.

Operating under Section 8.2.2 (service on RS37) would require the steps described in the response to BCUC IR 2.19.5.

Operating under Section 8.2.3 (service with no SSO or Stand-by component) would require no action.

19.8 Using examples, please illustrate how a Scenario 1 customer operating under Section 8.1 can move to being a Scenario 3 customer operating under Section 8.2.2 or Section 8.2.3.

Response:

The response to this question is the same as the response to BCUC IR 2.19.7.

20.0 Reference: Exhibit B-2, BCUC 1.1.1, Attachment 1.1, Sections 8.1.1 and 8.1.2, p. 4; Exhibit B-1, Appendix B, SSO Guidelines Discussion Guide, pp. 8-9

Scenario 1 customers

Section 8 of the Standalone SGP states:

> For example, in a given hour, assume that self-generation output is 10 MW and plant load is also 10 MW. If the self-generator chooses to meet its load with 8 MW of self-generation and 2 MW purchased from FBC, the 2 MW of self-generation that would otherwise have served the plant load could, by agreement with FBC and prior Commission approval, be made available for sale to a third party.
> …
>
> A self-generator that intends to engage in third party sales of self-generation not in excess of load can do so only through the establishment of an SSO, determined in accordance with the Company's SSO Guidelines Tariff Supplement. (Emphasis added)

In the SSO Guidelines Discussion Guide, FBC states:

> As noted in Section 13 of the Guidelines, the 50% factor is intended to represent agreement on the part of both the Customer and Company that all of the Net-Benefits resulting from the investment made in Self-Generation to the Self-Generation Customer and the Company's other customers are recognized.
> …
>
> A 50% factor has been chosen by FBC because the selection of a number other than 50% would infer that the net-benefits were in the favour of either the self-generating customer or the Company's remaining customers and would require a potentially contentious determination of the exact nature and magnitude of the net-benefits. In the absence of such a determination, the 50% figure is the most fair.

20.1 If a self-generator intending to engage in third party sales of self-generation which is not in excess of load can only do so through an SSO, please confirm that the customer from the above example would not be at liberty to choose to meet its load with 8 MW of self-generation and 2 MW of purchased power from FBC in order to make 2 MW available for sale to a third party. If not, please explain why not.

Response:

At the current time, all FBC customers are served on an NOL basis. The referenced customer cannot sell power that is not in excess of load.

The current SGP has been filed primarily in an effort to establish a consistent and transparent means to determine the extent to which a SG customer of FBC can sell power that is not in excess of load, which is an opportunity to which Commission decisions now seem to point. The SSO methodology is a construct, similar to a GBL, devised to deal with the Commission's conclusion in the process that led to Order G-188-11, that Celgar, and it is assumed by extension other SG customers, should have the opportunity to sell embedded-cost power to third parties unless specifically precluded from doing so by contract with FBC. At the time, the Commission noted that such power (which precluded any BC Hydro PPA power) could be exposed to the potential for "arbitrage", subject to the terms of an agreement between FortisBC and Celgar which would require Commission approval.

Therefore, the customer in the example would not be at liberty to arrange for the sale of the 2 MW without a Commission approved SSO. Later responses in this IR series address the SSO itself.

20.1.1 Based on sections 3 and 5 of the SSO Guidelines Tariff Supplement, please confirm that such a customer would be obligated to reduce the self-generation output used to self-supply to 5 MW and to purchase 5 MW from FBC to supply the remainder of its load. Please also confirm that this customer would then have 5 MW of self-generation available for sale to a third party, even though it might have had a sale contract for only 2 MW (as in the example). If not confirmed, please explain why not.

Response:

FBC confirms that the lowest SSO this customer would have available would be 5 MW, although a higher SSO could be agreed upon between FBC and the customer. The customer would be required to purchase from FBC any power required to meet the customer's load above the level of the SSO.

Assuming a 5 MW SSO, FBC confirms that this customer would then have 5 MW of self-generation available for sale to a third party.

20.1.2 Assuming that the most economically efficient scenario is for the self-generator to meet its 10 MW-load with 8 MW of self-generation and 2 MW of purchased power from FBC, while having a contract to sell 2 MW (as described in the example above), please discuss the implications of the SSO Guidelines to that customer's bottom line, which is now required to buy three additional MW from FBC, while still only being able to sell 2 MW.

Response:

FBC assumes that a SG customer that is aware that its most economically efficient scenario for service is to meet its 10 MW load is with 8 MW of self-generation and 2 MW of purchased power from FBC, and that is has a contract to sell 2 MW to a third party, would not negotiate an SSO at a value as low as allowable. While the SGP would allow for an SSO at the 5 MW level, a higher value would be acceptable.

20.2 Please confirm that the only instance when the SSO construct leads to the most economically efficient result for the SG is when, in the absence of the SSO construct, the self-generator would have chosen to self-supply 50% of its load from its self-generation facilities. If not, please explain why not.

Response:

FCB can confirm that if in the absence of an SSO, it was most economical for the SG customer to self supply 50 percent of its load, then an SSO set at the minimum 50 percent of the amount of generation historically used for self-supply would also lead to the most economical outcome. However, because of the availability of power sales revenue provided by the SSO, it is also the case that an SSO set above 50 percent may result in lower overall power costs than was possible prior to the SSO being in place.

FBC did not intend for the SSO determination to be so rigidly applied that 50 percent of generation historically used for self-supply was the only possible outcome, but rather that it represents the minimum. The Company considers that this clarification could be added to the SSO Guidelines with minimal other required changes.

20.2.1 If confirmed, please discuss the rationale for applying the same 50% factor to all customers, if it means requiring self-generators to not operate in the most economical manner.

Response:

Please refer to the response to BCUC IR 2.20.2.

20.3 Please discuss the pros and cons of an alternative method of setting the SSO, which would be to establish the self-supply obligation of each self-generator based on what would be economical for that customer to self-supply in the absence of the SGP and any output above that amount could be considered incremental.

Response:

Please refer to the response to BCUC IR 2.3.3.

E. NET BENEFITS

21.0 Reference: Exhibit B-1, Section 2: Background, p. 3; Exhibit B-2, BCUC 1.1.1; FBC SGP Stage I Application, Exhibit B-1, p. 35

Costs and benefits

On page 35 of the Stage I Application, FBC states that "The Company has determined that the overriding principle is that both costs and benefits should be recognized and accrue to both the self-generating customer and customers in general on a shared basis. The appropriate way to accomplish this is through an adjustment to the self-generating customer's charges." (Emphasis added)

On page 3 of the Stage II Application, FBC states that:

> In each of the cases above FBC is mindful that the Panel in the Stage I Decision stated that it "…supports an overriding principle where both the costs and benefits (net-benefits) are recognized and accrue to both the self-generating customer and FortisBC's customers on a shared basis.
>
> How net benefits are shared depends on the scenario in which the self-generating customer operates. …
>
> FBC believes that net benefits **should** be shared even for those customers outside the scenario that lends itself to a GBL. FBC says this because there is not likely to be any great distinction between the net benefits provided to other customers of the utility by Scenario 2 and 3 customers on the one hand, and those that choose to operate pursuant to a GBL on the other. It is not therefore equitable to restrict the recognition of net benefits to those customers making below-load sales pursuant to a GBL. (Bold in the original and underlined added)

In response to BCUC IR 1.1.1, FBC stated: "The installation of self-generation facilities, depending on location and individual attributes, may impose costs and/or provide benefits to the operation of the utility. The sum of these costs and benefits are referred to as net-benefits, and are most likely to result from the deferral or avoidance of required utility capital additions and/or a reduction in utility power purchases." (Emphasis added)

21.1 Please complete the following table by identifying the benefits to and the costs imposed on FBC (and its ratepayers) arising from the customer scenarios described at page 3 of the Application (columns A and B) and by proposing a method to quantify those benefits and costs (columns C and D).

Customer scenarios:	Benefits [A]	Costs [B]	Quantification of benefits [C]	Quantification of costs [D]	Net benefits [C - D]
Scenario 1					
Scenario 2					
Scenario 3					

Response:

A cornerstone of the FBC SGP is that while the Company acknowledges that there may be net-benefits associated with the presence of self-generation interconnected to its system, it is uneconomic and prohibitively complicated to formalize a methodology to determine what those benefits are, and to place a value upon them within the scope of the current process. FBC currently has three customers with self-generation, of which two would be subject to the SGP as filed. Of these, one is in agreement with the Company's proposal to apply a simple 50 percent factor in this regard, and the other is not participating directly in this process.

FBC is unaware of a jurisdiction where a recognition of the net benefits of SG has been directly entrenched in a filed tariff, and certainly in British Columbia, there are no such provisions in the service provided by BC Hydro (not that all utilities in a single jurisdiction must provide exactly the same service offerings). FBC is aware that proceedings have been initiated in other jurisdictions with the aim of developing an approach to determining the value of distributed generation (mostly in the context of customer owned solar resources). However, these have typically been jurisdiction-wide efforts that are of the nature of a Commission led inquiry. With respect, FBC submits that such an endeavour cannot be completed within the scope of the FBC SGP process, and certainly not within the current regulatory timetable.

FBC has also stated that the net benefits of all customer scenarios are likely to be similar, so the distinction requested in the table that separates the net benefits by customer is problematic. FBC has described the nature of the potential benefits as noted by the Commission in the response to BCUC IR 2.25 series and has already proposed a methodology to quantify those benefits and costs which is described in the setting of the SSO and SBBD.

In effect, the information requested in the question above is in itself, in the opinion of FBC, of a scope sufficient to warrant a separate proceeding if the Commission considers the information to be needed and the effort and expense justified

21.2 Are there instances where the costs of self-generation (column D) could be greater than the benefits (column C), resulting in negative net benefits? If not, please explain why an investment in SG from a customer would always result in benefits to the utility being greater than costs imposed on the utility.

Response:

In the view of FBC, if a methodology was approved that was able to identify and value the entirety of both the costs and benefits associated with a particular SG installation, there may be some occasions where the costs of self-generation would be greater than the benefits of self-generation, resulting in negative net benefits. FBC has acknowledged that this is a possibility.

21.2.1 If so, please discuss the conditions on which this result is dependent (e.g., market price, retail price, LRMC, etc.).

Response:

From a general utility perspective, the conditions that may result in negative net benefits are highly situational. Certainly, the determination of any power supply-related net-benefit would rely heavily on the relative levels of the retail rate the SG customer would be subject to and the cost of any additional resources required to meet the load (which could be a market-based resource or some other source of supply). Net benefits associated with infrastructure (which FBC maintains are difficult to identify and measure, but are likely small in either direction), may be influenced by such things as a positive or negative impact on system losses, any increase in requirements for protection, control or communications, or increased complexity in remedial action schemes that an SG customer may impose.

21.2.2 If so, does FBC also propose to share any negative net benefits between the SG customer and FBC? Please explain why or why not.

Response:

FBC has not proposed to impose additional costs related to negative net-benefits. In the case of the SBBD discount determination, where no positive net-benefits are indicated, there is nothing to share. In the absence of a comprehensive methodology for distributed generation

valuation, which FBC is not proposing and does not believe to be warranted, negative net-benefits are assumed not to occur.

21.2.2.1 If so, please explain how.

Response:

Please refer to the response to BCUC IR 2.21.2.2.

21.3 Based on the completed table, please confirm FBC's position that there is not "any great distinction" between net benefits provided to FBC's other customers, by scenario 2 and 3 customers on the one hand, and scenario 1 customers on the other. Please explain why or why not.

Response:

Please refer to the response to BCUC IR 2.21.1.

21.4 Given that FBC believes in the equitable recognition of net benefits from all three Scenarios' customers, please discuss how FBC ensure that the sharing mechanism it proposes for Scenario 1 customers (i.e. SSO construct with 50% factor applied) and for its Scenarios 2 and 3 customers (i.e. SBBD reduction) results in an equitable sharing of net-benefits. Please illustrate with numerical examples.

Response:

As indicated by the preamble quote from page 3 of the Stage II Application, FBC does not believe that it would be equitable that one customer type can receive a recognition of net benefits while another does not. Each customer with self-generation has the option to choose service pursuant to an SSO or utilizing the Stand-by Rate (or both), and can therefore choose the option that best suits its particular circumstance. Based on that choice, one customer's SG

1 benefit may differ from another's, even if both customers were in substantially similar
2 circumstances.

3

22.0 Reference: Exhibit C4-5 of the New PPA Proceeding, pp. 2-3; New PPA Decision, p. 101

BCMEU submission

In Exhibit C4-5 filed in the New PPA Proceeding, BCMEU states that:

> It is in the interest of its members and, the entire Province, to encourage self-generators to add new generation and to encourage non-generators to add generation. …
>
> What is needed is a clear and concise regulatory regime for the parties to work within. We suggest that a set of rules around self-generation might contemplate some or all of;
>
> - Defining a marker in time after which new or renewed generation is deemed to be incremental,
> - A reasonable time period for the incremental generation to be sold on the market, to other entities or used for serving own load as best suites the entity building the generation (perhaps 20 years, or 10 years after the initial capital is paid for),
> - That incremental generation be rolled in the Powerex pool and Powerex makes the best use of the generation and pays the generation owner a pro-rated share of the Powerex profit margin.

On page 101 of the New PPA Decision, the Commission states, in reference to the above BCMEU examples of rules around self-generation: "The Commission would expect FortisBC to address each of these issues as part of a separate proceeding being called for."

22.1 Please indicate how FBC has addressed each of the BCMEU proposed rules around self-generation in its proposed SGP.

Response:

Exhibit C4-5 was filed by the BCMEU in the PPA Proceeding on January 27, 2014. The PPA Decision (and Order G-60-14) was issued by the Commission on May 6, 2014.

FBC filed its SGP Stage I Application on January 9, 2015. This was the first opportunity for FBC to address the comments of the BCMEU in a separate proceeding. The BCMEU comments were the subject of Sections 6.4.1 and 6.4.2 of the SGP Stage I Application, which can be found on the Commission's website under 2016 completed applications. The FBC response did not include a discussion of the third point listed above. In FBC's view, the approach in the third point is most likely not workable as FBC does not see any methodology to fairly allocate the

"Powerex profit margin" among the pool participants due to the complexities of the various BC Hydro contracts and available transmission to support sales. However, only BC Hydro can directly address this point.

Further, FBC did not consider the "examples of rules" suggested by the BCMEU to be the "issues" that were the subject of the Commission's expectation noted on page 101 of the G-60-14 Decision.

Rather, the "issues" that the example rules were intended to address, are summarized in the paragraph on page 101 of the Decision that precedes the one that contains the rules. This is stated as, *"…the current economic incentive to invest in new generation on a net of load basis is very low, at best, the self-generating customers are avoiding power purchases at embedded cost rates."*

In summary, the proposed SGP does not incorporate the proposed BCMEU points into the Application as FBC believes that a simple policy that applies to both existing and new generation, without regard to circumstances or time of construction or any other potential factor, is the best approach that in the long run is most likely to provide a sharing of benefits by providing incentives for the SG to generate as well as mitigation of any potential rate impacts to other ratepayers.

22.2 If not yet addressed, please discuss the pros and cons of each of the BCMEU proposed rules.

Response:

Please refer to the response to BCUC IR 2.22.1.

22.3 Please explain how FBC's proposed comprehensive SGP compares to each of these rules to recognize the potential benefits of self-generation.

Response:

Please refer to the response to BCUC IR 2.22.1.

23.0 Reference: Exhibit B-1, Appendix B, SSO Guidelines Discussion Guide, pp. 6–7

Changing market conditions

On page 6, FBC states that "In the current environment of relatively low cost resources, and with the terms and conditions within the proposed SSO Guidelines, it is highly likely that an increase in FBC load due to the additional self-generator service requirements will have a mitigating effect on future rate increases."

On page 7, FBC states "To the extent that at some point in the future the reverse may be true, the SSO mitigates, but does not eliminate, the risk to other customers. The establishment of the SSO represents a reasonable compromise."

23.1 Please confirm that, due to the current environment of relatively low-cost resources, FBC expects a positive net benefit, i.e. that FBC's industrial rates are expected to be higher than the price it must pay for the power required to serve the increased load, thus resulting in a reduced revenue requirement. If not, please clarify the underlined statement above.

Response:

Although no underlining appears in the preamble references, FBC confirms that the premise contained in the information request is correct.

23.1.1 If confirmed, please clarify whether the SG would simultaneously see a net benefit from this arrangement. Please provide your assumptions in responding to this question.

Response:

FBC expects a SG customer will only exercise their SSO if they can receive a premium over what they expect to pay to FBC. Such a premium may be possible if general wholesale market prices substantially increase such that they are higher than utility rates or the SG customer can receive a premium for their power due to its characteristics.

Under the first possibility of generally higher wholesale market prices, FBC has a limited capability to manage its system flexibility and surplus capacity in such a manner that FBC may be able to achieve a replacement price that is lower than the retail rate at which sales are being made to the SG customer. If market prices continued to increase it is likely that this would not be possible.

Under the second possibility of the SG being able to receive a premium for their power due to its characteristics, the SG customer could see a benefit at the same time as the rest of FBC's customers provided that FBC can obtain replacement power at a lower rate than it is being sold to the SG customer for.

23.1.1.1 If the SG would not simultaneously see a net benefit, please clarify what incentives there are for the SG to enter into this SSO contract with FBC.

Response:

If there is no benefit to the SG customer then FBC expects that the SG customer would most likely not apply for an SSO, or if they had applied, would not exercise it.

23.2 Please confirm that by "the reverse may be true," FBC means that an environment of higher/high cost resources would cause the increase in FBC load due to the additional self-generator service requirement to result in future rate increases. If not, please explain why not.

Response:

Whether or not an increase in SG customer load would lead to a general rate increases is dependent on the circumstances described in the response to BCUC IR 2.23.1.1.

23.2.1 If confirmed, please indicate whether the SG would also simultaneously see a negative impact on its bottom line from this arrangement, or whether, on the contrary, the SG would see a positive impact from purchasing power above the SSO at cheaper industrial rates than the price at which it can sell its above-SSO power. Please provide your assumptions in responding to this question.

Response:

Please refer to the response to BCUC IR 2.23.1.1.

23.3 Does FBC agree that the proposed SSO construct can be characterized as a zero-sum game between the self-generator and FBC? Please discuss why or why not and use examples to illustrate your response, specifying the relationship between the industrial rate, the price at which FBC can source additional power and the price at which the SG can sell power.

Response:

FBC is not entirely comfortable with the characterization of the SSO construct as a "zero-sum game". The SSO is part of an exercise of developing and potentially implementing a self-generation policy pursuant to prior Commission decisions and to achieve, among other things, enhanced regulatory certainty that may benefit all stakeholders. Looking at the question more narrowly and without that context, additional points must also be made.

If the SSO construct is to be conceptualized as a trade-off, FBC does not consider that any trade-off in benefits occurs between the self-generator and FBC, but rather between the self-generator and FBC customers in general.

Even considered narrowly, the SSO construct is not necessarily a zero-sum game. Further, to the extent that it is, any SSO (or GBL) construct, not simply that proposed in the SGP that is under consideration in the Application, has the potential for higher rates to other customers due to SG customer actions. The SSO construct proposed in the Application ensures significant mitigation to other customers regardless of the situation, which other potential SSO constructs may not provide unless they simply set the SSO at 100 percent of load, which is the current requirement. And even under NOL operation, certain situations could lead to the generation simply being abandoned by the SG customer, potentially leading to much higher rate increases to other customers as compared to outcomes that permit third party sales and enable a certain amount of self-generation to continue.

Further, as discussed in the response to BCUC IR 2.23.1.1 FBC has a certain amount of flexibility to manage its overall requirements that may also influence the situation.

In other words, customers in general may, as a result of the activities of the self-generator, end up better or worse off under the proposed SSO (or any SSO that is less than 100 percent) compared to the current NOL requirement. if one only considers benefits related to the operation of the generation once installed, then the self-generator itself is only likely to see a

benefit as the SG controls the decision to exercise the SSO and would presumably only do so when a benefit would exist. However, this last statement ignores the risk and costs associated with installing the generation in the first place as well as its continued operation and maintenance, and this should also be considered.

24.0 Reference: Exhibit B-1, Appendix B, SSO Guidelines Discussion Guide, p. 7

Evaluation framework for SSO Guidelines

On page 7, FBC states "In the context of the Stage II Application, the SSO Guidelines should be evaluated against the same set of considerations put forward by the Commission for the setting of a GBL."

FBC also states that one of the key components of the SSO Guidelines is: "A 50% net benefit sharing factor is applied to the self-generation previously used to serve load in all cases to reflect a sharing of the net benefits of self-generation."

24.1 Please provide the set of considerations used by the Commission to set a GBL and clearly identify the relevant BCUC Orders and Decisions where these considerations are listed.

Response:

The considerations referenced as being put forward by the Commission for the setting of a GBL are those contained in Section 2 of Table 2-1 of the Application (page 11) which are repeated and evaluated in Table 7-1 at page 45 of the Application.

24.2 Please discuss how the above key component of the SSO Guidelines would fare if the Commission applied the same set of considerations that it used for the setting of a GBL.

Response:

Please refer to Table 7-1 of the Application; the purpose of Table 7-1 is to evaluate the proposals in the Application against the considerations put forward by the Commission for the setting of a GBL.

25.0 Reference: Exhibit B-1, Sections 4.1.2 and 4.1.3, pp. 31-33; Stage I Decision, p. 17;

FBC 2017 Cost of Service and Rate Design Application, Appendix A – EES Consulting COSA Report, p. 22

The SBBD Reduction for Scenarios 2 And 3 Customers

On page 17 of the Stage I Decision, the Panel states: "…in FBC's case, given the stand-by-rate structure, [avoidance or deferral of investments] is unlikely."

On pages 31-32, FBC lists the potential benefits arising from self-generation as:

- Electricity self-sufficiency, reduced greenhouse gas emissions, or a reduction in the need for utility-provided network capacity
- Deferred or permanent reduction in the need for utility provided generation, transmission and distribution capacity
- Reduced transmission losses
- Reduced environment impacts
- Improved reliability
- Avoided or deferred investments
- Relief of transmission congestion
- Replacement or complement of traditional power generation.

FBC also state on page 32:

> The Company … concludes that it would not be appropriate that infrastructure, reliability and transmission related elements factor into the net-benefits discussion. Despite the fact that a customer may choose to off-set load and take service under a combination of RS 31 and RS 37, FBC will not make any changes to the design or construction of transmission facilities as a result of this, since it may be necessary to meet the full load of the customer on those occasions when self-generation is unavailable. In addition, the short-term commitment required for Stand-by Service does not support any long-term infrastructure planning decisions.
>
> It is reasonable to consider the power supply-planning implications associated with the addition of the considerable load that would need to be accommodated should all FBC's self-generating customers become

full-requirement customers. This consideration can be reflected in a reduction to the Stand-by Billing Demand based on the avoided cost of power purchases for "load not served". (Emphasis added)

On pages 32-33, FBC states that such a Scenario 2 or 3 customer will have net benefits of self-generation recognized through a reduction in its SBBD, which results in a direct reduction in the fixed charges that are billed to the customer each billing period under RS 30 or RS 31.

In BCUC 1.1.1, FBC stated that "… the net benefits are most likely to result from the deferral or avoidance of required utility capital additions and/or a reduction in utility power purchases."

25.1 Please clarify FBC's position: does it need to plan its infrastructure to meet the full load or does it achieve savings due to "load not served"?

Response:

The referenced statement from the response to BCUC IR 1.1.1 is a general one. As also noted above, in FBC's case, net benefits that result from the deferral or avoidance of required utility capital additions are unlikely.

In any case, there is not a choice between infrastructure-related benefits and those resulting from load not served, as load not served is primarily a power supply-related factor.

FBC plans its system requirements on the basis that it may be required to meet the full load of self-generation customers since experience indicates this to be the case.

FBC would have lower power purchase costs if an SG customer was to serve an increasing portion of its own load. However, this would only provide a benefit reflected through the SBBD reduction in cases where the Blended Rate paid by the customer for utility supply is lower than the LRMC for Avoided Purchases, as shown in Table 4-1 of the Application.

25.2 Please clarify FBC's view that the net benefits are "most likely to result from the deferral or avoidance of required utility capital additions" in light of the Stage I Panel comment and FBC's own conclusion that it would not be appropriate to factor into the net-benefits discussion, infrastructure, reliability and transmission related elements.

Response:

For ease of reference, FBC notes that the cited comment appears in Attachment 1.1 to Exhibit B-2, at Section 7. The full paragraph is as follows,

> The installation of self-generation facilities, depending on location and individual attributes, may impose costs and/or provide benefits to the operation of the utility. The sum of these costs and benefits are referred to as net-benefits, and are most likely to result from the deferral or avoidance of required utility capital additions and/or a reduction in utility power purchases.

For clarity, the SGP as proposed only contains a specific determination of net-benefits in the form used to discount the SBBD with reference to power supply savings. The reduction in fixed charges that occurs as a result of the discount applied to the SBBD is used as a means to recognize power supply-related benefits and is also assumed to value the entirety of both the costs and benefits associated with a particular SG installation, FBC is not proposing to embark on a process aimed at directly quantifying any other net-benefits, including those that may exist related to infrastructure, reliability and transmission related elements. The Company does not believe it is appropriate to do so given the small number of interconnected SG customers and the difficulty and expense this exercise would entail, as discussed in the response to BCUC IR 2.21.1. FBC also believes that such benefits are very limited in its circumstance. Still, to the extent that some such net-benefits may exist, they, along with power supply related benefits are fully accounted for in the sharing mechanism that forms part of the SSO determination.

25.3 Based on FBC's conclusion to not factor into the net-benefits discussion infrastructure, reliability and transmission related elements, please confirm that the remaining potential benefits of self-generation for Scenarios 2 and 3 customers, based on the above list of potential benefits, are:

- Reduced greenhouse gas emissions; and
- Reduced environment impacts.

Response:

The list of potential benefits provided at page 31 of the Stage II Application, is an amalgam drawn from searches, primarily web-based, that should be considered generic. In some jurisdictions, where sources of utility supply may be significant sources of GHG emissions or have some other environmental impact, there may be potential benefits to be gained by substituting other, "greener ", resources. For FBC, where resources are overwhelmingly hydro-

based, and similarly clean, the opportunity to reap a benefit from switching sources of supply is limited.

25.3.1 If not confirmed, please indicate which of the other potential benefits listed above are relevant to Scenarios 2 and 3 customers, and why, in light of FBC statement that it would still need to meet the full load of those customers on those occasions when SG is unavailable.

Response:

Please refer to the response to BCUC IR 2 25.3. It is the intent of the SSO and SBBD reduction provisions contained in the SGP that all potential net-benefits of self-generation are recognized.

25.3.2 Please also clarify why reduced GHG emissions and environmental impacts are potential benefits of self-generation arising from Scenarios 2 and 3 customers (benefits from whose perspective?).

Response:

Please refer to the response to BCUC IR 2.25.3.

25.3.3 If the only benefits that remain are environmental in nature (because FBC believes it is inappropriate that infrastructure, reliability and transmission related elements factor into the net-benefits discussion), please clarify how the proposed method to calculate the SBBD reduction for Scenarios 2 and 3 customers relates to the recognition and sharing of these environmental benefits.

Response:

Please refer to the response to BCUC IR 2.25.3.

25.4 Would a reduction in the fixed charges billed to customers under RS 30 or RS 31 be a recognition of benefits related to infrastructure, reliability and transmission? Please explain why or why not.

Response:

The reduction in fixed charges that occurs as a result of the discount applied to the SBBD is used as a means to recognize power supply-related benefits and is also assumed to value the entirety of both the costs and benefits associated with a particular SG installation, FBC recognizes that traditionally, the fixed charges contained in a rate schedule relate at least in part to use of utility infrastructure. The method chosen by FBC is not intended to undermine that principle, which FBC supports. Rather, it provides a readily available mechanism to provide benefits to the customer in a consistent manner.

In its FBC 2017 Cost of Service and Rate Design Application, filed on December 22, 2017, FBC states:

> Another $1.4 million was added to other revenues to reflect the revenues collected under Rate 37. These revenues are new since 2009 and reflect the charges associated with standby power for FortisBC's self-generating customer. Because these charges are for standby power and rates are set less than the full cost of service, the COSA is not an appropriate way to develop the rates or determine whether they are recovering related costs. Because the other customers on the system pay for the facilities used to provide this discounted service, it was decided that the firm customers should all benefit from the associated revenues. Other customers are better off having the standby sales because the alternative would provide no additional revenues. Without the standby service offering, the customer would reduce its service to just the portion taken under Rate 31 and would forgo standby service. The Rate 37 revenues, even at reduced a rate, provide a contribution to the fixed costs on the system, which benefits all customers. These revenues are allocated on the basis of all rate base in consideration of the contribution to all fixed costs of the system.

25.5 In light of FBC's above explanation of RS 37, please confirm, otherwise explain, that:

i. All FBC ratepayers benefit from the self-generators being on RS 37 as the revenues collected under Rate 37 reduce the revenue requirement which forms the basis to the COSA.

ii. The self-generators taking service under RS 37 benefit from discounted rate because the rate charged for standby power is less than the full cost of service.

iii. The offering of service under RS 37 is already a mechanism that share the benefits of self-generation between the self-generators and the other customers of the utility.

Response:

Given that FBC does have the RS37 rate, and that there are revenues associated with it, some means of recognizing those revenues in the COSA must be found. It is therefore the case that the RS37 revenues, regardless of their level, contribute to recovering the overall cost of service.

With respect to the suggestion in the IR of discounts and benefits, please refer to the response to BCUC IR 2.25.6. As explained in the response to BCUC IR 2.25.6, FBC would not characterize the allocation of the RS37 revenues within the COSA as a sharing of a benefit of self-generation.

25.6 Please explain why FBC proposes a further reduction in SBBD as a mechanism to share the benefits of self-generation for customers in Scenarios 2 and 3.

Response:

FBC does not understand what is meant by a "further" reduction in the SBBD. The SBBD may be reduced if the self-generation provides a net-benefit according to the calculation exemplified in Table 4-1 of the Application. If the question assumes that a benefit has already been extended to the SG customer merely by providing service on the RS37 rate which does not fully recover the cost of service, and posits that the SBBD reduction constitutes a further recognition of the benefit, then FBC agrees.

However, this issue was fully explored as part of the Stepped and Stand-by Rate Application process and most fully discussed in the Stage IV Decision.

At page 19 of the Stage IV Decision, the Panel recognized the Company's position from Exhibit B-41 that:

> The bill reduction already afforded through the structure of the approved RS 37, without consideration of the Wires Demand Charges, appropriately balances the

> interest of the entire customer and any future reduction of the SBBD cannot be justified.

and:

> The provision of the Stand-by tariff that allows for the setting of the SBBD between zero and 100 percent of the SBDL recognizes the Government's objective of the promotion of self-generation. However, the Stand-by Rate approved by the Commission has this consideration inherent in its design and no further reduction in costs is necessary in order to fulfill this objective.

However, in the Panel's determinations on the same page, the following direction was provided:

> The Panel wishes to clarify an apparent misunderstanding that FortisBC is basing part of its argument on. In the Stage I Decision the Panel stated "Stand-by Contract Demand [changed to SBBD in the Stage II Decision for clarity] would then be established to reflect the benefits of self-generation…" The Panel further explained that "given the limitation of a one size fits all network services charge concept, the Panel considers it more appropriate to use a principle based approach to identify the benefits of self-generation." Clearly any benefits of self-generation were to be recognized through the SBBD and not through the design of the other components of the rate.
>
> Furthermore, the fact that the energy charge in RS 37 is set at market rates is not, in and of itself, a benefit to the customer. Any benefit or cost is highly dependent on what the market rate is, compared to the embedded cost rate, at the time the customer required stand-by service.
>
> Likewise the fact that a self-generating customer can choose to serve a portion of its load from its own generation, which it paid for and must maintain, is not in and of itself a benefit either.
>
> **For these reasons the Panel determines that the benefits of self-generation are to be reflected through the SBBD as they are not reflected through the other components of RS 37 as suggested by FortisBC**.
>
> (Bold in original, underlining added by FBC)

Given the above, FBC has proceeded on the basis that RS37 itself does not reflect the net-benefits of self-generation.

F. THE SBBD REDUCTION

26.0 Reference: Exhibit B-1, p. 4; FBC 2014 Stepped and Standby Rates for Transmission Voltage Customers Decision, dated May 26, 2014, p. 56

Principles

On page 4, FBC states that "in FBC's view, the Stand-By Billing Demand (SBBD) is the appropriate means to share benefits in Scenarios 2 or 3."

At page 56 of the FBC 2014 Stepped and Standby Decision, the Commission stated:

By way of example, the Panel considers that the following principles could be a reasonable starting point in the development of principles used to determine Stand-by Contract Demand for future customers:

1. Economic efficiency: stand-by wires charges should not discourage on-site generation that is fully economical and cost-effective but for the inclusion of stand-by charges. Specifically, stand-by charges should not be (i) so low as to promote uneconomic bypass of the grid or inefficient maintenance of customer owned generation assets, or (ii) so high as to discourage the growth of cost effective self-generation.

2. Fairness: cost-causation principles should be applied in assigning costs to differently situated customers. However, diametrically opposed interpretations of the user pay principle could make it difficult to justify a high or low stand-by rate design solely based on the fairness principle.

3. Consideration of BC Energy Policy: the stand-by wires charge should take into consideration whether stand-by rates should be adjusted higher or lower to support BC energy objectives.

4. Simplicity and transparency: stand-by wires charges should be easy to understand and administer, and designed so that prospective users can estimate what their charges will be, based on a few known cost determinants.

5. Stability: optimal stand-by wires charges can vary between customers and over time. However, once set, stand-by wires charges for a particular customer should not be subject to material changes (other than, for example, where there is a material change to the corresponding retail rate design) during the term of financing a generator project, usually 15-20 years.

26.1 For customers offsetting self-generation against load, please identify and explain any differences between FBC's comprehensive standalone SGP and the

"reasonable starting point" principles articulated on page 56 of the FBC 2014 Stepped and Standby Decision.

Response:

FBC notes that the principles articulated in the FBC 2014 Stepped and Stand-by Rates Decision and repeated above, were described as a reasonable starting point in the development of principles used to determine Stand-by Contract Demand specifically for use in the proposed Stand-by Rate that was the subject of that proceeding.

In the original document from which the principles were drawn[10] , the similar set of principles were described as "goals" that are consistent with the Bonbright principles but specific to the general design of stand-by rates.

It is unclear to FBC how these principles can be used for the more narrow purpose of setting a Contract Demand or the level of the SBBD in recognition of net-benefits.

However, as a set of evaluative principles by which to assess the FBC SGP, the Company does not believe that its comprehensive standalone SGP is in violation of any of them. As noted in the source document, "*It is important to understand that these goals sometimes conflict with one another, and it is no simple matter to determine the optimum rate design that will maximize achievement of all these goals*."

[10] See the discussion beginning at page 10 of http://www.michigan.gov/documents/energy/NRRI_Electric_Standby_Rates_419831_7.pdf.

27.0 Reference: Exhibit B-2, BCUC 1.1.1, Attachment 1.1, Section 8.2, p. 5

Scenarios 2 and 3 customers

FBC stated in response to BCUC IR 1.1.1:

> RS 37 is available only to those self-generators that normally supply all or some portion of load from self-generation and is strictly for the continued operation of customer facilities at times when the Customer-owned generation is unavailable.
>
> The net benefits of self-generation are taken into account when a customer's SBBD is determined. This process requires an assessment of the value of "load not served" due to the presence of self-generation, which, at a high level is equal to the difference between the foregone revenue from serving the full load of the customer and the marginal cost of serving that incremental load."

27.1 Please clarify why a self-generating customer choosing to be on RS 37, meaning that FBC must plan its infrastructure and transmission assets to be able to serve that customer's full load, should get a reduction in SBBD through the "load not served" valuation process.

Response:

Please refer to the response to BCUC IR 2.25.6.

28.0 Reference: Exhibit B-1, Sections 4.1.3.3, pp. 3536

Steps 3-5: example of an SBBD Reduction

On page 35 of the Application, FBC states that the final steps in arriving at an SBBD reduction are best described through an example.

Table 4-1: SBBD Reduction Example

	Base Year Data		
a	Monthly Peak Load (kVA)		10,500
b	Annual Plant Consumption (kWh)		65,572,500
c	Previous Year Self-Generation Used to Serve Load (kWh)		43,800,000
d	Levelized Wires Charge Rate ($/kVA)		$5.51
e	Levelized Power Supply Rate ($/kVA)		$3.10
f	Levelized Energy Rate ($/kWh)	$	0.06167
g	**Step 1: LRMC for Avoided Purchases from LTERP**	$	**0.085**
	Step 2: Blended Rate Calculation		
h =a*d*12	Wires Charges	$	694,777
I = a*e*12	Power Supply Charges	$	390,812
j = f*b	Energy Charges	$	4,043,599
k=h+i+j	Total Revenue	$	5,129,189
l = k/b	**Blended Rate**	$	**0.078**
	Step 3: Value of *Load-not-Served*		
m=g-l	Per Unit Value of Load-Not Served (LRMC minus Blended Rate)	$	0.007
n=c*m	(Per unit value x Previous Year Self-Generation Used to Serve Load)	$	296,892
	Step 4: Sharing of Net-Benefit		
o=n*0.5	Sharing @ 50%	$	148,446
	Step 5: Calculate SBBD Reduction		
p=o/d	Monthly SBBD Reduction (kVA)		2200

Lines b and c in Table 4-1 indicate that, for a hypothetical customer, the annual plant consumption is 65,572,500 kWh and the Previous Year Self-Generation Used to Serve Load is 43,800,000 kWh.

28.1 Please clarify how this hypothetical customer, with an annual plant load that is 50% higher than the amount of self-generation to serve load, can illustrate the case of:

i. Customers that use self-generation to off-set load but are not selling any self-generation to third parties (Scenario 2); and

ii. Customers that sell self-generation to third parties but only after off-setting their full load (i.e., that is in excess of load) (Scenario 3).

Response:

The hypothetical customer used in the example in Table 4-1 could be a customer that fits into Scenario 2. This customer is offsetting load and no sales to third parties are contemplated in the example.

The hypothetical customer could not be a Scenario 3 customer since it does not offset its consumption fully with self-generation.

28.2 Since customers in Scenario 3 must off-set their full load before selling to third parties, their annual load cannot be higher than their self-generation used to serve load. Without changing the LRMC value in Table 4-1, please update Table 4-1 so that the Annual Plant Consumption (line b) is equal to the Previous Year Self-Generation Used to Serve Load (line c) at 43,800,000 kWh.

Response:

There are two notes to accompany this response:

In the original Table 4-1, the value for line m (Per Unit Value of Load-Not Served) was shown rounded up to $0.007 from its calculated value while the value of line n was arrived at using the unrounded base number. In this response that rounding variance has been corrected.

As requested for this IR, FBC has updated the annual plant consumption to match the annual self-generation and has not changed the value of the LRMC. FBC has changed the Monthly Peak Load from the IR 28.2 scenario by applying the same factor for the relationship between peak load and annual plant consumption used in the original example. It is a reasonable assumption that lower annual consumption would be associated with a lower peak load.

As would be expected, since it is the generation of the SG customer that represents the load not being served by FBC in both cases, the ultimate value in terms of a SBBD reduction is the same.

FBC shows both scenarios in the table below.

	Base Year Data	Revised Table 4-1	BCUC IR 28.2
a	Monthly Peak Load (kVA)	10,500	7,000
b	Annual Plant Consumption (kWh)	65,572,500	43,800,000
c	Previous Year Self-Generation Used to Serve Load (kWh)	43,800,000	43,800,000
d	Levelized Wires Charge Rate ($/kVA)	$5.51	$5.51
e	Levelized Power Supply Rate ($/kVA)	$3.10	$3.10
f	Levelized Energy Rate ($/kWh)	$ 0.06167	$ 0.06167
			0
g	**Step 1: LRMC for Avoided Purchases from LTERP**	**$ 0.085**	**$ 0.085**
			$ -
	Step 2: Blended Rate Calculation		0
			0
h =a*d*12	Wires Charges	$ 694,777	$ 463,185
I = a*e*12	Power Supply Charges	$ 390,812	$ 260,542
j = f*b	Energy Charges	$ 4,043,599	$ 2,700,975
k=h+i+j	Total Revenue	$ 5,129,189	$ 3,424,701
l = k/b	**Blended Rate**	**$ 0.078**	**$ 0.078**
			$ -
	Step 3: Value of *Load-not-Served*		0
m=g-l	Per Unit Value of Load-Not Served (LRMC minus Blended Rate)	$ 0.007000	$ 0.007000
n=c*m	(Per unit value x Previous Year Self-Generation Used to Serve Load)	$ 306,600	$ 306,600
			0
	Step 4: Sharing of Net-Benefit		0
o=n*0.5	Sharing @ 50%	$ 153,300	$ 153,300
			0
	Step 5: Calculate SBBD Reduction		0
p=o/d	Monthly SBBD Reduction (kVA)	2300	2300

28.2.1 Based on the updated Table 4-1, if FBC arrive at a negative difference for the value of load-not-served (i.e., $-0.001/kWh), please discuss whether this means that FBC would be better off serving the full load of that customer.

Response:

The updated Table 4-1 presented in the response to BCUC IR 2.28.2 does not result in a negative value for Load not Served. However, generally speaking, FBC itself is financially indifferent as to whether the customer is a partial or full load customer. FBC customers in general, however, can be impacted by the portion of the load served by FBC. Under the assumptions contained in the question, yes, other customers would be better off if FBC served the full load.

28.3 Assuming no changes in Lines a to f in Table 4-1, if the LRMC for avoided purchases from the LTERP came out lower than $0.085/kWh by at least $0.007/kWh, please confirm the difference in Line m would also be negative.

Response:

Confirmed.

28.4 What broader implications does a negative result in 'Line m' of Table 4-1 have on FBC's proposal to share the "net-benefits" of SG with Scenarios 2 and 3 customers through a "reduction in SBBD"?

Response:

A negative per unit value for Load not Served would indicate a lack of positive net-benefit due to the presence of self-generation and no SBBD reduction would be provided.

G. DEFINITIONS

29.0 Reference: Exhibit B-2, BCUC 1.1.1, Attachment 1.1, Sections 2, 3 & 4, pp. 1-2; Appendix A: SSO Guidelines, Section 2, pp. 1-2

FBC SGP & SSO Guidelines

Definitions	Policies Regarding Self-Generating Customers (Attachment 1.1 to BCUC IR 1.1.1)	Self-Supply Obligation Guidelines (Draft) (Appendix A to Attachment 1.1 to BCUC IR 1.1.1)
Eligible Customer	**Eligible Customers** – Eligible Customers are served under Rate Schedule 30 – Large Commercial Service – Primary, or Rate Schedule 31 - Large Commercial Service – Transmission. Eligible Customers may also be taking service under Rate Schedule 37 – Stand-by and Maintenance Service.	**Eligible Customer** – Eligible Customers for the purpose of this Tariff Supplement are those taking service on one of rate schedules 30, 31, 32, and 33 and that have clean and renewable self-generation facilities located on the customer side of the meter which are capable of meeting some or all of the electrical needs of the customer's plant.
Net of Load	**Net-of-Load (NOL) Service –** A self-generating customer is served on a NOL basis when, prior to making any self-generation output available for sale to a third party, it supplies its entire plant load from its own generation facilities. NOL is the default mode of service for utility customers except for those self-generators that are operating with a British Columbia Utilities Commission (Commission) approved Self Supply Obligation (SSO).	**Net of Load (NOL)** – NOL service is the default service arrangement for customers without a Commission-approved SSO, or that have a Commission-approved SSO but are not taking service pursuant to it. A customer taking service on a NOL basis must, on an hourly dynamic basis, supply 100% of its plant energy and capacity requirements prior to using its self-generation for the purpose of third party sales.

29.1 Please clarify why the definitions of "Eligible Customer" and "Net of Load" in the main SGP document and its Appendix A (SSO Guidelines) are not identical.

Response:

The definitions are different due to updates being made for the SSO Guidelines that were not reflected in the policy document. The SSO Guidelines are intended to be a tariff supplement that will be filed with the Commission and contain the more current definitions.

In Section 4 of the SGP, FBC states: "Where an existing customer is already utilizing any of the services…" (Emphasis added)

In the SSO Guidelines (Appendix A to SGP), "Existing Customer" is a defined term.

29.2 Please provide the definition of "Existing Customer" in the main SGP document.

Response:

Neither of the terms "existing customer" nor "new customer" are defined in the main SGP document as each only occurs on a single occasion and FBC considers these to be common usage terms. With respect to "existing customer" the usage relates to the discussion regarding the existing standard requirements for interconnection and transmission access that precedes it. Both are distinct from the narrower usage required for use in determining an SSO as per the SSO Guidelines that requires a defined term.

In Section 5.1.3 of the SSO Guidelines, FBC states: "For a New Customer with new self-generation facilities…"

29.3 Please define "New Customer" in the SSO Guidelines and in the SGP.

Response:

As discussed in the response to BCUC IR 2.29.2, FBC does not believe that defining "new customer" in the SGP document is required.

However, as "New Customer" is capitalized in the SSO guidelines and has a potential implication for setting the SSO, the lack of a definition is an omission.

For the purpose of the SSO Guidelines, a New Customer would be defined as a customer without at least 12 months of operational load history prior to the date at which a request to determine an SSO is made to the Company.

29.4 The definition of "Annual Generation Used to Serve Load" in the SSO Guidelines specifically refers to the case of an Existing Customer but not the case of a new customer or an existing customer with new self-generation facilities. Please update the definition of "Annual Generation Used to Serve Load" as necessary to clarify how such annual generation will be established for a new customer or an existing customer with new self-generation facilities.

Response:

The existing definition for "Annual Generation Used to Serve Load" is the amount of a customer's self-generation output that over a 365 day period was used to serve a customer's plant load. For an Existing Customer, this will be based upon metering at the customer's facilities and agreed upon between FBC and the customer.

FBC drafted this definition with the intent that the first sentence comprised the actual definition, while the second described the application to an existing customer.

The determination Annual Generation Used to Serve Load for each type of customer is described in Section 5 of the SSO Guidelines.

Given this, the preference of FBC would be to drop the second sentence from the definition which provides a single application rather than add the other customers' circumstances.

These are sufficiently covered by Section 5 and do not need to be repeated in the Definitions.

FBC defines the term "Third Party" in Section 3 of the SGP document; however, FBC only uses the capitalized term in Section 5 of the document. All other eight instances in the SGP document and the SSO Guidelines are not capitalized.

29.5 Please clarify whether there is a difference between the use of Third Party as a defined term and the use of third party as an undefined term.

Response:

As "Third Party" is a defined term, all instances should be capitalized. No difference in usage was intended. FBC apologizes for this oversight and will correct in any final version.

29.5.1 If there is no difference, would FBC agree to capitalize the term throughout the SGP and the SSO Guidelines and to add the definition of "Third Party" in the SSO Guidelines?

Response:

FBC agrees to capitalize the term throughout the SGP and the SSO Guidelines and to add the definition of “Third Party” in the SSO Guidelines.

30.0 Reference: Exhibit B-2, BCUC 1.1.1, Attachment 1.1, Section 6.3, p. 3

Unscheduled deliveries to FBC

In response to BCUC IR 1.1.1, FBC stated:

> This rate is equal to the lesser of the Tranche 1 Energy Price set out in Rate Schedule (RS) 3808 as of January 1 in the calendar year in which the unscheduled delivery is made and the ICE Mid-C Day-Ahead Index Price, less 2 mils, using the heavy load index for Heavy Load Hours and the light load index for Light Load Hours.

30.1 Please clarify the meaning of the term "less 2 mils."

Response:

A mil is a standard term for an adder to a quoted energy price and is equal to 1/10 of a penny or $0.001. 1 mil is equivalent to $1 per MWh in electricity pricing.

H. OTHER

31.0 Reference: Exhibit B-2, BCUC 1.1.2

Required elements of FBC SGP

BCUC 1.1.2, BCUC 1.1.2.1 and BCUC 1.1.2.2 asked that FBC provide an accompanying discussion that explains if/how each of the thirteen elements has been addressed in the standalone SGP filed pursuant to IR 1.1, to identify where in the standalone SGP and how the element was addressed or, if not addressed, to explain why.

31.1 In its responses to BCUC 1.1.2, 1.1.2.1 and 1.1.2.2, FBC did not explicitly identified which sections of the standalone SGP addressed all thirteen elements. Please identify where in the standalone SGP are the following items addressed: #3, 4, 5, 7, 10.

Response:

For item #3, "Establish policies that outlines the circumstances under which [FBC] will do nothing, remove barriers or incent self-generation", the response by FBC included a discussion of the SGP policies related to negotiating an SSO, reducing the SBBD, and potentially purchasing SG output which are located in the standalone SGP at sections 8.1, 8.2, and 6.2 respectively. FBC has not used the specific language ("do nothing" etc.) in the SGP but deals with each by outlining the available SG treatment in all circumstances.

For item #4, *"Establish policies that assist in mitigating barriers to cost-effective clean self-generation*", FBC noted in its IR response that this particular aspect of the SGP is covered in the same manner as item #3. The SGP provides the same mechanisms to all customers and the distinction between "mitigating barriers" and "removing barriers" seems to be only one of degree. The SGP describes the mechanisms in the same locations as for item #3.

For item #5, *"Establish a policy that defines how the net benefits of self-generation are measured. The filing needs to include an analysis of alternate methods of measuring the long-term benefits of self-generation including, at a minimum, consideration of: (i) the LRMC used by BC Hydro; (ii) the LRMC used in the DSM Regulation; and (iii) [FBC]'s updated LRMC that is expected to be filed as part of its next Long Term Electric Resources Plan (due to be filed by June 30, 2016)",* as noted in the response, FBC included the requested analysis in the Stage II Application, but did not adopt any of the various measures of LRMC in its SGP, which was not a requirement. The SGP does contain specifics around how net-benefits are recognized, in Section 7 of the SGP and in Appendices A and B, which form part of the SGP.

For item #7, *"Establish policies that address: (a) customers that wish to use self-generation to off-set load but are not exporting any self-generation; and (b) customers that wish to export self-generation but only after off-setting their full load. The policies should identify any material risks*

or barriers to such activities and include policies on how those risks can be mitigated and barriers removed", FBC has described the policies related to these customer types in Section 8 of the SGP. For the portions of item #7 that are concerned with risk, FBC has, through the various processes related to the development of the SGP policy discussed the risk of impact to other customers; however, while the SGP is developed in consideration of the risk, it would be unusual for a policy, as a guide for customers and the Company, to contain that discussion.

For item #10, *"Establish a policy that defines how [FBC] measures cost-effectiveness when evaluating a potential long term energy purchase contracts with a self-generation customers",* FBC provides the discussion in Section 6.2 of the SGP document.

32.0 Reference: Exhibit B-2, BCUC 1.1.1, Attachment 1.1, Appendix A, Section 5, p. 2

SSO

In response to BCUC IR 1.1.1, FBC stated:

> The Self-Supply Obligation of any Eligible Customer will be equal to Annual Generation Used to Serve Load, as determined below, then divided by 8760 as the number of hours in 365 days. The result is rounded to the nearest MW and multiplied by 50% in recognition of the sharing of the net-benefits of self-generation. The SSO is an hourly MW obligation. Existing Customers. (Emphasis added)

32.1 Had FBC meant to add a sentence regarding "Existing Customers"?

Response:

No. In this case, it appears that the heading of the following section 5.1.1 which begins with "Existing Customer" was duplicated and erroneously formatted.

33.0 Reference: Exhibit B-2, BCUC 1.1.1, Attachment 1.1, Appendix A, SSO Guidelines

Timelines

There are several timeframe references throughout the SSO Guidelines. For example:

- A representative year based on historical data under NOL operation (section 5.1.1);
- 36-month SSO review (section 5.1.2);
- 60 months to use Initial SSO once approved by Commission (section 6);
- 24 months to use Subsequent SSO once approved by Commission (section 7);
- 5-year minimum commitment (Section 11);
- 3-year minimum termination notice (Section 11);
- Time requirement to revoke termination notice (Section 11);
- 6-month prior notification requirement to initiate SSO service (Section 12.1); and
- 12-months prior notification requirement for Subsequent SSO service (Section 12.2).

33.1 On the timeline below, please show all the timeframes referenced in the SSO Guidelines (there may be more than listed above) using examples as necessary.

Response:

In reviewing this IR, FBC has been unable to portray all of these items on a single timeline because some are dependant on previous occurrences, and others may be precluded. For example, assuming that a SG customer has notified FBC with the 6 month written notice (12.1 of the SSO Guideline) that it intends to take service utilizing an SSO, that an Initial SSO has been agreed upon and approved by the Commission, service pursuant to that Initial SSO could commence as early as 6 months from that approval (12.1).

The customer must also begin to take service using the Initial SSO within 60 months of Commission approval or it will become invalid.

Therefore, the customer can begin using the Initial SSO at any point between 6 months and 60 months after Commission approval.

Assuming that the Initial SSO is determined for a customer in accordance with Section 5.5.1 and not 5.5.2, no 36 month review period will be required.

Assuming the service pursuant to the Initial SSO did commence within the 6 to 60 month window noted above, such service must continue for a minimum of 60 months.

At anytime during the 60 month minimum commitment period, the customer could give a minimum 36 month notice that it intends to cease service pursuant to the SSO, but the service could only cease at a point in time beyond the end of the 60 month minimum commitment period. Such notice could therefore occur at various points along the timeline

A customer could revoke the notice that it intends to cease service pursuant to the SSO provided that it does so with at least 12 months notice prior to the end of the existing 60 month term. Again, such revocation could happen at numerous points in time.

These same time-based terms exist with a Subsequent SSO with the exception that once a Subsequent SSO is determined, the customer must provide 12 months notice prior to its use and it will become invalid if not used within 24 months.

33.2 Please provide the rationale for choosing each of the timeframes.

Response:

Each of the time-related aspects within the SSO was determined based on the judgment of the Company's resource planning staff who made an assessment of a reasonable amount time required to adjust the resource portfolio in response to the changing load requirements of the customer and to ensure that an SG customer is making decisions based on a reasonable time frame rather than very short term market conditions. In addition, since the Company has been able to negotiate an SSO with its largest SG customer that is consistent with the SSO Guidelines, the timeframes are thought to represent a reasonable set of conditions from the perspective of an SG customer.

33.3 If after one year into the SSO service, a customer provides its 3-year notice to cease taking service under the SSO, does the SSO service stop after 4 years?

Response:

No. The minimum amount of time to take service pursuant to any SSO is 5 years. The 3 year notice for termination is a minimum requirement.

33.4 Please clarify the term “existing 5-year term.” Would FBC be amenable to define the term “Term”?

Response:

The existing 5-year term refers to the 60 month minimum requirement that exists for service pursuant to any SSO. FBC would be amenable to defining the term “Term” and expects that it would refer to the 60 month period that would be detailed in the agreement between the Company and the Customer.

34.0 Reference: Exhibit B-1, Appendix A, Draft SSO Guidelines, p. 3 and Appendix B, SSO Guidelines Discussion Guide, p. 3

On page 3 of the Discussion Guide, FBC states that "A customer that intends to use self-generated power to offset load only could establish an SSO, but would not be required to, or be under any obligation to use it once established. In other words, the establishment of an SSO creates an opportunity, but not an obligation."

BCOAPO states: "the proposed SSO Guidelines mitigate the risk to ratepayers caused by moment-to-moment opportunistic behavior, but do not appear to mitigate the risk to ratepayers caused by allowing self-generators to opt for whatever option is best for them (and worst for ratepayers) over the succeeding three to five year period."

BCSEA states: "It is unclear why a self-generating customer with a Commission-approved SSO is allowed a substantial period of time before deciding to actually use it. This appears to give the holder of an unused-SSO a form of option, against the interests of ratepayers, lasting long enough for medium-term changes in the market to become apparent. This appears to tilt the balance in favour of the self-generator and against ratepayers."

34.1 Please clarify what FBC means by "the establishment of an SSO creates an opportunity but not an obligation," in light of BCOAPO and BCSEA's concerns.

Response:

An SG customer may approach FBC to establish an initial SSO, which will provide some certainty around the amount of generation output that may be available for sale to a third party. The customer may wish to use that information for the purpose of determining whether to pursue potential sales and, if so, on what terms, which may require some time. However, simply having determined the initial SSO creates no obligation for the customer to make use of it. It could remain unused for 60 months after Commission approval and would become without meaning.

FBC is of the view that while the BCOAPO and BCSEA are generally correct in characterizing the SSO as an "option" for the customer, the sharing mechanism and the notification provisions provide mitigation. If one accepts that the SSO Guidelines include adequate mitigation provisions, then providing a reasonable persistence to the initial SSO itself should also be acceptable.

As a practical matter, the load and generation profiles of most SG customers are consistent enough that a somewhat shorter or longer Initial Period would not likely have any significant impact to the level of the SSO, as it would be determined at different points in time. As such, a relatively long initial period prevents the SG Customer from having to repeatedly reapply for an

1 SSO while they are evaluating their options even though it is unlikely the SSO would
2 significantly change.

3

35.0 Reference: Exhibit B-3, Question 3, p. 5

Matters relating to the extent to which FBC should be neutral, encouraging or discouraging toward self-generation

In the Stage I Application, the Company stated,

> FBC supports the principle that the decision by a customer to install self-generation should be made by the customer based on the merits of the project. In general, it is not the role of the utility to either encourage or discourage the installation of customer-owned generation by any customer. Rather, customers should be free to make strategic investment decisions appropriate to their circumstances which may include consideration of the benefit that the self-generation provides to FBC customers as a whole, including the self-generating customer.
>
> This remains the basic position of FBC today. If a self-generating customer wishes to sell its output to FBC and can do so at a price that is comparable to a resource of similar characteristics to which the Company has similar access, then FBC would consider this within the overall resource planning criteria. This does not constitute an incentive and would not cause harm to other customers. (Emphasis added)

35.1 Please confirm that FBC is describing a "neutral position toward self-generation" when it states that it would consider a self-generator's output within the overall resource planning criteria, which neither constitutes an incentive nor causes harm to other customers. If not please explain why not.

Response:

FBC believes it would be more accurate to state that FBC itself has a neutral position towards self-generation, and its comments above are simply reflective of that position.

35.1.1 Please provide other examples of "neutral position toward self-generation" that would be supported by FBC's proposed SGP.

Response:

FBC has a neutral position towards self-generation in that it will not take an action of its own accord that places the interests of either the SG customer or other customers above the other. The SGP proposed by FBC applies to all eligible customers and each can make an assessment

as to whether it will be beneficial in their particular circumstance based on factors that are not set or influenced by FBC. By having methodologies that are consistent and transparent, FBC cannot be seen as favouring or discouraging any particular customer or situation.

35.2 Please highlight the key differences between a SGP that is neutral toward self-generation versus one that would encourage self-generation.

Response:

In the view of FBC, generation that is cost-effective, in that the overall economic efficiency of the interconnected resources is maximized, will be built without the encouragement of the utility. It is difficult for the Company to imagine how generation that would not otherwise be built can be encouraged by the utility without a distortion of the pricing signal at the expense of other customers. Such a distortion may occur through extending a purchase price to the SG customer that is in excess of the market-based value, or by discounting some other cost that the SG may have to incur below what the service is actually worth.

In Exhibit C2-3 in the Stage I SGP Application process, BC Hydro describes its approach to SG customers as one that encourages self-generation noting,

> In the BC Hydro service area, BC Hydro's approach is to encourage incremental self-generation projects through financial payments and incentives under EPAs and LDAs with self-generating customers, assuming it is cost-effective for BC Hydro to do so relative to other resource options.[11] (Emphasis added)

The caveat noted in the underlined portion is seemingly consistent with the provisions included in the FBC SGP. What BC Hydro means by cost-effective and other resources is clear from the preceding paragraph in its submission.

> If Fortis BC incentivized and secured cost-effective incremental self-generation within the FortisBC service area (where cost-effectiveness is appropriately assessed against the LRMC of new clean energy resources in B.C.) instead of facilitating its export, this ought to be a benefit to the ratepayers of FortisBC and BC Hydro as a whole. (Emphasis added)

BC Hydro goes on to add:

> Given the above, in BC Hydro's view it is unfortunate that FortisBC takes the position that it is not FortisBC's role to encourage self-generation in its service

[11] C2-3, page 13.

area. FortisBC might consider encouraging incremental self-generation projects through financial payments and incentives under EPAs and LDAs with its self-generating customers, assuming it is cost-effective for FortisBC to do so relative to the provincial LRMC of new firm energy.[12]

An example of an SGP that encourages self-generation then, at least in the view of BC Hydro, is one that makes financial payments and provides incentives to customers providing that it is cost effective.

However, FBC and BC Hydro diverge on the view that the provincial LRMC of new firm energy is an appropriate measure of cost effectiveness, at least in FBC's circumstance. In the view of FBC, the appropriate manner in which to evaluate whether or not the potential supply from an SG customer is cost effective is to consider it as a potential resource in the same manner as all resources are evaluated – within the context of the LTERP.

FBC takes no view on the matter in the context of BC Hydro, but notes that while a similar arrangement in the FBC SGP would encourage SG, it would do so at the expense of other FBC customers.

35.2.1 Please provide specific examples of a SGP that would encourage self-generation.

Response:

Please refer to the response to BCUC IR 2.35.2.

35.3 Please highlight the key differences between a SGP that is neutral toward self-generation versus one that would discourage self-generation.

Response:

While the provision to purchase the output of a SG customer as long as the price is at or below the price of other available and comparable options represents a neutral element of an overall SGP, a policy that included no provision for the utility making such purchases at any price would discourage self-generation.

[12] Ibid, page 14.

35.3.1 Please provide specific examples of a SGP that would discourage self-generation.

Response:

Please refer to the response to BCUC IR 2.35.3.

36.0 Reference: BCUC Order G-38-01; BCUC Order G-17-02; Decision accompanying BCUC Order G-48-09, p. 22

Market conditions leading to G-38-01

Directive 2 of Order G-38-01 ordered:

> 2. Due to the unique circumstances that currently exist and without prejudice to the resolution of long-term rights of self-generators to take their generation to the market, this program is established until March 31, 2002 and may be continued after that date if conditions warrant. (Emphasis added)

Directive 2 of Order G-17-02 ordered:

> 2. The conditions established under Order No. G-38-01 to prevent such arbitrage are to remain in effect until the Commission determines that future circumstances no longer justify the existence of such a program." (Emphasis added)

On page 22 of the Decision accompanying Order G-48-09, the Commission stated: "The Commission Panel is persuaded that a rate allowing for the sale of power by self-generators, not in excess of their historical loads, is unjust and unreasonable and therefore contrary to the public interest for the reasons that follow. The Panel is of the view that the general principles enunciated in Order G-38-01 ought to be extended to customers of FortisBC."

36.1 Please discuss what were conditions, as referred to in Order G-38-01.

Response:

FBC does not believe that the word "conditions" in Orders G-38-01 and G-17-02 was used in the same manner.

The "conditions established under Order G-38-01" as the term is used in Order G-17-02 appear to be the restrictions set in place that were attached to the ability of Rate Schedule 1821 customers with idle self-generation capability to sell excess self-generated electricity in order to capitalize on current market opportunities, which would help to mitigate the potential energy shortages in the Pacific Northwest and California that existed at the time. The condition attached to this ability was that the self-generating customers do not arbitrage between embedded cost utility service and market prices.

In Order G-38-01 itself, the "conditions" refer to the circumstances described by BC Hydro as, "…*an energy shortage in the U.S. Pacific Northwest and California in 2000 and further energy shortages were expected during the forthcoming summer of 2001. The 2000 energy shortage*

resulted in high market prices for electricity in western U.S. markets, and high prices were expected during the summer of 2001 as well."[13]

36.2 Please discuss whether those conditions still exist.

Response:

The conditions that existed in 2000 and 2001 with respect to energy shortages in the Pacific Northwest and the resulting high energy prices no longer exist.

36.2.1 If not, please discuss how the conditions have changed, and what impact, if any, does that have on the FBC's proposed SSO policy?

Response:

The energy shortage that existed at the time that Order G-38-01 was issued no longer exists and energy prices are at relatively low levels that are forecast to persist for the foreseeable future. This fact has no impact on the FBC SGP, as it was not conceived of to address the issues that gave rise to the 2001 Order.

[13] Exhibit C2-3, FBC Stage 1 SGP Application.