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February 8, 2018

Sent via eFile

**FORTISBC INC. SELF-GENERATION POLICY STAGE II  
EXHIBIT A-8**

Ms. Diane Roy  
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**Re: FortisBC Inc. – Self-Generation Policy Stage II Application – Project No. 1598895**

Dear Ms. Roy:

Further to British Columbia Utilities Commission Order G-2-18, enclosed please find Commission Information Request No. 2 to FBC. In accordance with the regulatory timetable, please file your responses no later than Thursday, March 8, 2018.

Sincerely,

*Original signed by:*

Patrick Wruck  
Commission Secretary

/kbb



FortisBC Inc.  
Application for Self-Generation Policy Stage II

**INFORMATION REQUEST NO. 2 TO FORTISBC INC.**

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**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.

...

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.
- 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.

**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.
- 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.
- 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.

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

**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.

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.

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?

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.

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

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.

**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.

**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.

**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.

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?

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?

**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 <sup>2,3</sup>	BC Hydro Tranche 1 Revenues <sup>1</sup>
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.
- 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

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.

### 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,<sup>15</sup> 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.

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

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

**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,<sup>15</sup> 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.”
- 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.

**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	<p><b>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.</b></p> <p>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 <i>could</i> 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.</p>

- 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.
- 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.

**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.
- 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.

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

**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.
- 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.

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

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

**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.
- 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.
- 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.
  - 18.3.1 If confirmed, please clarify what incentives the self-generator would have to enter into such arrangements with FBC.
  - 18.3.2 Please discuss the likelihood of this scenario happening.
- 18.4 Please clarify what FBC mean by “early” when stating that the customer should approach FBC early in the planning process.

**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.
- 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.
- 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.

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.
- 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.
- 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.
- 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.
- 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.

**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.

- 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.
- 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.
- 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.
  - 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.
- 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.

## 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					

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.

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

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.

21.2.2.1 If so, please explain how.

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.

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. SBBB reduction) results in an equitable sharing of net-benefits. Please illustrate with numerical examples.

**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 suits 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.
- 22.2 If not yet addressed, please discuss the pros and cons of each of the BCMEU proposed rules.
- 22.3 Please explain how FBC’s proposed comprehensive SGP compares to each of these rules to recognize the potential benefits of self-generation.

**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.
- 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.

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.

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.

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.

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.

**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.

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.

**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 SBBB 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 SBBB, 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"?
- 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.
- 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.
- 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.
- 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?).
- 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 SBBB reduction for Scenarios 2 and 3 customers relates to the recognition and sharing of these environmental benefits.
- 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.

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.

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

## **F. THE SBBB 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 (SBBB) 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.

**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 SBBB 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 SBBB through the "load not served" valuation process.

**28.0 Reference: Exhibit B-1, Sections 4.1.3.3, pp. 3536 Steps 3-5: example of an SBBB Reduction**

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

**Table 4-1: SBBB Reduction Example**

<u>Base Year Data</u>		
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	<b>Step 1: LRMV for Avoided Purchases from LTERP</b>	<b>\$ 0.085</b>
<b>Step 2: Blended Rate Calculation</b>		
h = a*d*12	Wires Charges	\$ 694,777
l = 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	<b>Blended Rate</b>	<b>\$ 0.078</b>
<b>Step 3: Value of Load-not-Served</b>		
m=g-l	Per Unit Value of Load-Not Served (LRMC minus Blended Rate)	<b>\$ 0.007</b>
n=c*m	(Per unit value x Previous Year Self-Generation Used to Serve Load)	\$ 296,892
<b>Step 4: Sharing of Net-Benefit</b>		
o=n*0.5	Sharing @ 50%	\$ 148,446
<b>Step 5: Calculate SBBB Reduction</b>		
p=o/d	Monthly SBBB Reduction (kVA)	<b>2200</b>

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).
- 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 LRMV 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.
- 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.
- 28.3 Assuming no changes in Lines a to f in Table 4-1, if the LRMV 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.
- 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 SBBB”?

**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	<b>Eligible Customers</b> – 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.	<b>Eligible Customer</b> – 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	<b>Net-of-Load (NOL) Service</b> – 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).	<b>Net of Load (NOL)</b> – 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.

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.

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.

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.

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.

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?

**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.”

**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.

**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”?

**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.

Representative year of data	
--------------------------------	--

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

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?

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

**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.

**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.
  - 35.1.1 Please provide other examples of “neutral position toward self-generation” that would be supported by FBC’s proposed SGP.
- 35.2 Please highlight the key differences between a SGP that is neutral toward self-generation versus one that would encourage self-generation.
  - 35.2.1 Please provide specific examples of a SGP that would encourage self-generation.
- 35.3 Please highlight the key differences between a SGP that is neutral toward self-generation versus one that would discourage self-generation.
  - 35.3.1 Please provide specific examples of a SGP that would discourage self-generation.

**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.
- 36.2 Please discuss whether those conditions still 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?