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November 10, 2016

British Columbia Utilities Commission
6th Floor, 900 Howe Street
Vancouver, BC
V6Z 2N3

Attention: Ms. Laurel Ross, Acting Commission Secretary and Director

Dear Ms. Ross:

Re: FortisBC Inc. (FBC)
Self-Generation Policy Stage II Application

On March 4, 2016, the British Columbia Utilities Commission (the Commission) issued Order G-27-16 and Decision in the FBC Self-Generation Policy (SGP) Stage 1 Application. Section 8 of the Decision directed that:

FortisBC is directed to file a Stage II Self-Generation Policy Application, which includes both a comprehensive Self-Generation Policy and Generator Baseline Guidelines, in accordance with the decision issued concurrently with this order, within 120 days of the date of this order.

On September 22, 2016, the Commission granted FBC an extension to the filing date of the SGP Stage II Application to November 10, 2016.

FBC respectfully attaches its Self-Generation Policy Stage II Application.

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 Interveners to the FortisBC Inc. Self-Generation Policy proceeding



FORTISBC INC.

**Self-Generation Policy Stage II
Application**

November 10, 2016

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1 1. OVERVIEW

2 FortisBC Inc. (FBC or the Company) sets out below and applies for Commission approval of the
3 policies that it proposes to govern its interaction with self-generating customers. The policies
4 are intended to provide clarity around how the self-generation output will be treated, in order to
5 facilitate self-generating customers' ability to make investment decisions. The treatment that
6 FBC proposes builds in consideration of the impacts of self-generation on other ratepayers.

7 The overarching goal of the policies described in the FBC Self-Generation Policy Application is
8 to provide a clear, workable, reasonable set of guidelines and policies that are fair to self-
9 generating customers and non-self-generating customers alike.

10 2. BACKGROUND

11 On January 19, 2015, FBC filed with the Commission its High Level Self-Generation Policy
12 Application (the Stage I Application) in response to directives contained in the Commission's
13 reasons related to Orders G-60-14 and G-67-14. The Stage I Application presented both the
14 Company's proposed high level policy on self-generation and its views with respect to the topic
15 of the benefits of self-generation. The Stage I Application also outlined how the Company had
16 met its consultation requirements and addressed specific other subject areas, as directed by the
17 Commission.

18 The Commission had provided for FBC to exercise discretion and judgment in deciding upon the
19 final scope of the Stage I Application, but did direct that the Company consult on the following
20 items to inform the development of self-generation policies within its service territory:

- 21 I. The potential benefits of self-generation;
- 22 II. The 1999 Access Principles in the context of self-generating customers;
- 23 III. If the GBL methodology is proposed, GBL Guidelines for both idle historic self-
24 generation and new self-generation; and
- 25 IV. Arbitrage is not allowed.

26
27 The Stage I Application included the following high level policy statement from the Company as
28 an encapsulation of FBC's general approach to self-generators:

29 FBC supports the principle that the decision by a customer to install self-
30 generation should be made by the customer based on the merits of the project.
31 In general, it is not the role of the utility to either encourage or discourage the
32 installation of customer-owned generation by any customer. Rather, customers
33 should be free to make strategic investment decisions appropriate to their
34 circumstances which may include consideration of the benefit that the self-

1 generation provides to FBC customers as a whole, including the self-generating
2 customer.

3 The Commission issued its Stage I Decision¹ on March 4, 2016. The Stage I Decision contains
4 an expansive discussion of the proposals contained in the Stage I Application as well as
5 Commission expectations for a future filing by FBC. Section 8 of the Stage I Decision provides
6 a summary, as follows:

7 FortisBC is directed to file a Stage II Self-Generation Policy Application, which
8 includes both a comprehensive Self-Generation Policy and Generator Baseline
9 Guidelines, in accordance with the decision issued concurrently with this order,
10 within 120 days of the date of this order.²

11 The Commission also provided a listing of compliance items that both the Self-Generation
12 Policy (SGP) and the Generator Baseline Guidelines should address. The Company sets out
13 the lists in their entirety in Section 2.3 for ease of reference.

14 Consistent with the Stage I Application and the Stage I Decision, FBC remains of the view that a
15 self-generating customer should be free to make investment decisions, that the factors the
16 customer takes into account should build in consideration of the impacts on other ratepayers,
17 and that there should be clarity around how the self-generation output will be treated.

18 With this SGP Stage II Application, FBC sets out how it will interact with self-generating
19 customers taking into consideration the choices that a customer makes regarding the use of the
20 self-generation output within the context provided by the Stage I Decision and the framework
21 provided by the policies that FBC proposes. For the remainder of the Stage II Application,
22 because the policies described pertain to self-generating industrial customers, FBC will refer to
23 “customers” with the understanding that these are customers with some level of generating
24 capability. If a distinction needs to be drawn for customers without self-generation it will be
25 noted. It is also understood that the discussion herein does not apply to Independent Power
26 Producers (IPP) that do not also have an industrial load because where no load is served by the
27 generator no benefits accrue to other customers of FBC.³

28 The decision facing customers relates to the disposition of self-generated power. Generally, the
29 self-generation output can either be used to offset some or all of the plant load, or some portion
30 of it can be made available for sale to a third party. Third parties may include FBC, British
31 Columbia Hydro and Power Authority (BC Hydro), or another entity within or outside of B.C.

32 Given the choice faced by customers, the Commission stated that:

¹ Decision and Order G-27-16.

² The date for filing of the Stage II Application was extended to August 30, 2016 by Commission letter dated April 27, 2016 and to September 30, 2016 by Commission letter dated August 9, 2016. By a letter dated September 22, 2016 the filing date was extended to November 10, 2016.

³ FBC recognizes that an IPP may provide some system benefits such as local voltage support; however, an IPP lacks a utility-customer relationship where such benefits can be recognized.

1 FortisBC's SGP should provide information, stability, transparency and
2 consistency to guide customers and prospective customers considering making
3 investments in self-generation in the FortisBC service area.⁴

4 There are therefore three types of customer scenarios that the Company's comprehensive SGP
5 must address:

- 6 1. Customers that sell self-generation to third parties that is not in excess of load (which
7 may be simultaneously taking power from FBC) (**Scenario 1**);
- 8 2. Customers that use self-generation to off-set load but are not selling any self-generation
9 to third parties (**Scenario 2**); and
- 10 3. Customers that sell self-generation to third parties but only after off-setting their full load
11 (i.e., that is in excess of load) (**Scenario 3**).

12
13 In each of the cases above FBC is mindful that the Panel in the Stage I Decision stated that it
14 "...supports an overriding principle where both the costs and benefits (net-benefits) are
15 recognized and accrue to both the self-generating customer and FortisBC's customers on a
16 shared basis."⁵

17 How net benefits are shared depends on the scenario in which the self-generating customer
18 operates.

19 For customers in Scenario 1 above - that is, customers who sell self-generation that is not in
20 excess of load - a construct must exist that mitigates the risk to other ratepayers by demarking
21 the amount of electricity that the customer must generate for self-supply prior to directing any
22 self-generation to third party sales.

23 In the Stage I Decision the Panel concluded that it supports a Generation Baseline (GBL)
24 construct to achieve this purpose, and that the GBL is the mechanism that best reflects a
25 sharing of the net benefits between the self-generator and FBC's other customers.⁶

26 For customers in either Scenario 2 or Scenario 3 above, since no below-load sales of self-
27 generation output are being made, a GBL-type mechanism will not be in place. Therefore,
28 another means needs to be found to share net benefits in this situation, if net benefits are to be
29 shared at all. FBC believes that net benefits **should** be shared even for those customers
30 outside the scenario that lends itself to a GBL. FBC says this because there is not likely to be
31 any great distinction between the net benefits provided to other customers of the utility by
32 Scenario 2 and 3 customers on the one hand, and those that choose to operate pursuant to a

⁴ Stage I Decision, page 10.

⁵ Stage I Decision, page 31.

⁶ Later in the Stage II Application, FBC will explain that it has adopted the term Self-Supply Obligation (SSO) in place of GBL. However, FBC will continue to use GBL up to the point in the Application where that decision is discussed.

1 GBL on the other. It is not therefore equitable to restrict the recognition of net benefits to those
2 customers making below-load sales pursuant to a GBL.

3 In FBC's view, the Stand-By Billing Demand (SBBB) is the appropriate means to share benefits
4 in Scenarios 2 or 3. FBC views this as consistent with the Stage I Decision: the Panel's concern
5 in the Stage I Decision with SBBB as a means of sharing benefits related to the fact that it was
6 not available in third-party sale scenario – Scenario 1 – which was to be addressed in the FBC
7 policies. In this regard, in response to FBC's submissions regarding the role that a SBBB could
8 play in the sharing of benefits, in the Stage I Decision the Panel identified its "concern with this
9 approach" being "that the Stand-by Rate only applies to self-generation used to off-set load and
10 does not apply to self-generation used for export."⁷ For customers who do engage in third party
11 sales, the Commission suggested that the SBBB was not the best means of addressing the
12 sharing of net benefits, and in this respect turned to the GBL construct.

13 Now that the GBL mechanism will be used for customers in Scenario 1 to address the third-
14 party sale scenario, SBBB will provide a means to address Scenarios 2 and 3. SBBB is a billing
15 determinant in Rate Schedule 31 that is applicable to customers also utilizing the Company's
16 Stand-by Service (Rate Schedule or RS 37). SBBB for a customer using RS 37 is set at an
17 amount between zero and 100 percent of the maximum level of Stand-by Service that can be
18 supplied to the customer, typically the difference between the customer's maximum load and its
19 Contract Demand.⁸

20 While the SBBB is to be agreed to between the customer and the Company, the Commission
21 has concluded that,

22 Stand-by Billing Demand for future customers should ultimately reflect both the
23 costs and the benefits distributed generation provides to BC, and provide a level
24 of price certainty regarding network charges for Stand-by Service to customers
25 considering making self-generation investments. Any considerations in setting
26 the SBBB for future customers must be consistent with the directions provided in
27 Section 3.8.5 of the Stage I Decision for SBCD [sic], and must reflect the
28 benefits/detriments of self-generation.⁹

29 FBC believes that the SBBB remains the appropriate mechanism for a future customer that will
30 not be making third party sales, or that will do so only after having offset its load, to receive a
31 share of the net-benefits attributable to its self-generation.

32 It follows that in order for a customer to receive a share of the net benefits of its self-generation
33 it must either be taking service pursuant to a GBL-type mechanism (or in FBC nomenclature, a
34 Self-Supply Obligation or SSO – see footnote 6) or the Company's Stand-by Rate.

⁷ Stage I Decision, page 12.

⁸ For RS 31, Contract Demand establishes the maximum level of full service that a customer is eligible for under that rate.

⁹ Stage II Decision in the Application for Approval of Stepped and Stand-by Rates for Transmission [Voltage] Customers, page 23.

1 If a customer has an SSO, it would not also have an SBBB reduction although the customer
2 may still take Stand-by Service. To reduce the SBBB for a customer with an SSO would count
3 the net benefits twice over in the customer's favour.

4 FBC believes that the remaining customer situation, where a customer chooses to be served on
5 a net-of-load basis and does *not* elect to be on the Stand-by rate, would mean that customer
6 would receive no recognition of any benefits that it may provide. The customer retains the
7 option to participate in one of the means that FBC provides of accessing the sharing of net
8 benefits, via the SSO and SBBB mechanisms, should the customer wish to do so.

9 **2.1 APPLICATION ORGANIZATION**

10 In light of the foregoing discussion, this Stage II Application will first provide contextual
11 information regarding applicable policy and legislative considerations, related Commission
12 matters, and eligibility criteria in Sections 2.2 through 2.4.

13 In Section 3, FBC addresses the Net-of-Load Standard as it relates to service within the context
14 of the proposed FBC self-generation policies.

15 Following this, in Section 4, FBC will present its proposed SGP regarding the provision of
16 service to customers based on whether they intend to engage in third party sales or simply use
17 self-generation to offset plant load.

18 In Section 5, FBC will discuss the potential for the Company to remove potential barriers to self-
19 generation through the purchase of self-generation output.

20 In Section 6, FBC will discuss the impact of the SGP in terms of changes that its implementation
21 would require to other rate schedules and policies.

22 Finally in Section 7, FBC provides a summary of the Commission requirements for the Stage II
23 Application and the manner in which FBC has addressed them.

24 **2.2 REGULATORY AND LEGISLATIVE CONSIDERATIONS**

25 **2.2.1 Previous Commission Decisions**

26 In Section 2 of the Stage I Decision the Commission reviewed the past Commission decisions
27 that are relevant to the determination of SGP at FBC and provided a summary. The Company
28 will not repeat the entirety of the summary provided in the Stage I Decision here. The Stage I
29 Decision was specifically intended to set the groundwork for the present application, so is of
30 particular importance. The requirements for the Stage II Application that were included in the
31 Stage 1 Decision are presented in detail in Section 2.3.

1 Further, it is instructive to review relevant past decisions (here, through the lens of the Stage I
2 Decision) to assess the historical context of such decisions, and the degree of congruence with
3 new factual situations addressed.

4 The processes cited by the Panel in the Stage I Decision as having relevance to the current
5 process are:

6 **Order G-38-01: BC Hydro Obligation to Serve Rate Schedule 1821 Customers:**

7 This Decision provided the capability to sell excess self-generated electricity to customers with
8 idle self-generation, provided the self-generating customers do not arbitrage between BC
9 Hydro's embedded cost utility service rates and market prices.

10 The GBL approach was introduced as a way to mitigate the harm to other customers while
11 allowing self-generating customers to realize the benefits from their idle self-generation.

12 **Order G-174-15: BC Hydro Contracted GBL Guidelines Application:**

13 BC Hydro customers who are considering entering into prospective Energy Purchase
14 Agreements (EPAs) or Load Displacement Agreements (LDAs) with BC Hydro can determine
15 the amount of electricity that the customer must generate for self-supply. These BC Hydro
16 Contracted GBL Guidelines were only approved by the Commission for their application to
17 customers with existing self-generation.

18 The BC Hydro Contracted GBL Guidelines do not apply to customers that wish to sell power to
19 a third party other than BC Hydro.

20 **Order G-46-15: Stage II Decision in the Application for Approval of Stepped and**
21 **Stand-by Rates for Transmission [Voltage] Customers:**

22 There is one element of the Stand-by Rate that remains to be determined and that is dependent
23 on the outcome of this Stage II Application. This is because in the G-46-15 Decision the
24 Commission directed FBC as follows:

25 Therefore, FortisBC is also directed to file for approval a Tariff Supplement to
26 Electric Tariff RS 37 that establishes the principles to be considered in setting
27 future customer's Stand-by Billing Demand, no later than ninety days after the
28 Commission issues a final decision on the FortisBC Self-Generation Policy
29 Application, which is currently underway as directed by Order G-60-14.
30 Consistent with the Stage I Decision, once the principles have been approved in
31 a separate process, FortisBC is directed to amend RS 37 such that it includes
32 language stating that the setting of Stand-by Billing Demand will be based on
33 principles as set out in the attached Tariff Supplement.¹⁰

¹⁰ Stage II Decision in the Application for Approval of Stepped and Stand-by Rates for Transmission [Voltage] Customers, page 24.

1 **Order G-60-14: New PPA Decision:**

2 This Decision approved an application by BC Hydro to replace an existing 1993 Power
3 Purchase Agreement (PPA) between BC Hydro and FBC under RS 3808 with a new PPA.

4 This Decision is particularly relevant to the current process in that in approving the new PPA,
5 the Commission made a number of observations regarding Section 2.5 of the agreement as set
6 out below:

7 Hence, the Commission Panel determines that as long as there is an energy
8 surplus and spot markets are low there is very little risk to BC Hydro ratepayers
9 of FortisBC using its excess Tranche 1 energy to supply any incremental load.¹¹
10 ...Therefore, the Panel finds that although the current energy surplus does not
11 necessarily provide protection to BC Hydro's ratepayers over the entire twenty-
12 year term of the New PPA, it does provide protection in the near future where the
13 greatest amount of risk lies.¹²

14 Accordingly, the Commission Panel determines that under the terms of the New
15 PPA there is no significant material risk of harm to BC Hydro that warrants it
16 reasonable to continue to include the restrictions as originally provided for in
17 sections 2.5(a)(ii), 2.5(a)(iii) and 2.5(b) of the New PPA. In summary, in the
18 interest of regulatory efficiency, the Panel's preferred solution would be to
19 immediately remove the restrictions from section 2.5 as it finds that due to the
20 characteristics of the New PPA BC Hydro's rate payers no longer require
21 protection, especially in the short term. However, the Panel also will conclude, for
22 reasons addressed in the following Sections that it may be somewhat premature
23 as FortisBC's self-generation policies are not sufficiently developed, articulated
24 and approved by the Commission.¹³

25 These conclusions on the part of the Commission seem to lead directly to what the Panel, in the
26 Stage I Decision, described as its most important foundation for its framework for evaluation of
27 the Stage II Application: the removal of the Section 2.5 restrictions in the New PPA.

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

¹¹ New PPA Decision, page 92.

¹² Ibid.

¹³ Ibid, page 98.

1 **2.2.2 Clean Energy Act**

2 The key legislative act supporting energy policy in B.C. is the Clean Energy Act (CEA). Passed
3 in April 2010, the CEA outlines sixteen objectives aimed at turning B.C. into “a leading North
4 American supplier of clean, reliable, low carbon electricity and technologies that reduce GHG
5 emissions while strengthening [the] economy in every region.” Key objectives are:

- 6 a. for B.C. to achieve “energy self-sufficiency”;
- 7 b. to take demand-side measures and to conserve energy, including the objective for BC
8 Hydro to reduce its expected increase in demand for electricity by the year 2020 by at
9 least 66%;
- 10 c. to generate at least 93% of the electricity in British Columbia from clean or renewable
11 resources;
- 12 d. for ratepayers to continue to receive the benefits of BC Hydro’s low-cost “Heritage
13 Assets” (existing Hydro generation assets);
- 14 e. to reduce B.C. greenhouse gas emissions;
- 15 f. to ensure BC Hydro’s rates remain among the most competitive of rates charged by
16 public utilities in North America;
- 17 g. economic development, including for First Nations and rural communities; and
- 18 h. to be a net exporter of electricity from clean or renewable resources with the intention of
19 benefiting all British Columbians.

20
21 To the extent that the FBC SGP encourages an increase in clean and renewable generation
22 from new sources, it is generally supportive of several of the above objectives. However, the
23 impact of self-generation on these objectives is tempered by the fact that FBC’s generation
24 resources are already clean and renewable.

25 **2.3 REQUIREMENTS OF THE APPLICATION**

26 The Stage I Decision contains a number of Commission directives and considerations that the
27 Company has addressed in its Stage II Application. FBC has summarized these requirements
28 verbatim in Table 2-1 below. The Company will revisit this table at the end of this Application, in
29 Section 7 to discuss where and to what extent the proposed SGP meets these requirements.

30 In addition to the individual requirements contained in Table 2-1, the overarching goal of the
31 policies described in the FBC SGP Application is to provide a clear, workable, reasonable set of
32 guidelines and policies that are fair to self-generating customers and non-self-generating
33 customers alike. This is consistent with the Commission staff suggestion during the May 25,
34 2016 Workshop on Stage 2 that where any inconsistencies may exist between the key

1 principles of the Stage 1 Decision and other previous GBL guidance provided by the
2 Commission, FBC should, "...put together an application that makes sense."

3

1

Table 2-1: Stage I Decision Self-Generation Policy Requirements

Self-Generation Policy Requirement as Contained in the Stage I Decision		Decision Page
1	The Comprehensive SGP needs to:	
1a	Apply to both current and future customers;	13
1b	Identify how long the policy will be in place and how often it will be reviewed or updated;	13
1c	Establish policies that outlines the circumstances under which FortisBC will do nothing, remove barriers or incent self-generation;	13-14
1d	Establish policies that assist in mitigating barriers to cost-effective clean self-generation;	
1e	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) FortisBC'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);	15
1f	Establish separate policies for customers that intend to use self-generation to off-set load and policies related to customers who intend to export self-generation;	20
1g	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;	52
1h	Address restrictions on generator type taking into consideration the applicable sections of the CEA and the BC Energy Plan for self-generating customers off-setting load as well as exporting;	21,40,45
1i	Include policies that address both exporting to a third party, and exporting to FortisBC;	26
1j	Establish a policy that defines how FortisBC measures cost-effectiveness when evaluating a potential long term energy purchase contracts with a self-generation customers;	52
1k	Establish a policy that sets out criteria that will use when comparing a potential long term energy purchase contracts with a self-generation customers against other available resource options;	50-52

Self-Generation Policy Requirement as Contained in the Stage I Decision		Decision Page
1l	Identify any tariffs, agreements, rate schedules, interconnection issues, transmission access issues and any business practices necessary to facilitate such exporting to a third party or to FortisBC; and	26
1m	Include a policy statement that clarifies the role of the net-of-load restriction under a GBL construct.	47-48
2	The GBL Guidelines need to consider that:	
2a	The Panel supports a policy that allows customers with self-generation to export incremental self-generation to a third party as long as the risk to other ratepayers due to difference between the regulated rates and the contract price or market price is mitigated;	26-27
2b	The Panel supports a GBL construct to mitigate the risk to other ratepayers that demarks the amount of electricity that the customer must generate for self-supply prior to using any self-generation for export;	32
2c	The Panel supports the position that the GBL consequently defines the supply obligation of the utility. The GBL is not calculated by establishing the supply obligation but rather the amount of electricity that the customer must generate for self-supply;	53
2d	The Panel supports the policy where the net benefits are recognized and accrue to both the self-generating customer and FortisBC's customers on a shared basis;	29-31
2e	The Panel does not support the position that the sharing of net benefits is best reflected through the Stand-by Rate's SBB, rather the Panel find that the GBL is the mechanism that reflects a sharing of the net benefits between the ratepayers and the self-generator;	31
2f	The Panel does not support a policy that would allow a self-generating customer to elect, on a short term opportunistic basis, whether any incremental self-generation above the GBL will be deemed to serve the customer's load or deemed to be exported;	25
2g	The Panel does not support a policy where a customer with self-generation would have discretion as to whether they use their incremental self-generation to displace load or export once the GBL is set;	45
2h	The Panel generally supports the setting of the GBL at the normal historical level for self-supply for idle generation; however, a definition of idle will be necessary;	44
2i	The Panel does not support the setting of the GBL for customer with new self-generation that result in all self-generation being considered incremental and available for export; and	44

Self-Generation Policy Requirement as Contained in the Stage I Decision		Decision Page
2j	The Panel does not support the setting 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).	46
2k	The Panel supports the general concept that if a customer does not have a GBL the net-of-load construct would be the default.	47
3	The GBL Guidelines need to address:	
3a	Alternative methods for setting the GBL for customers with new generation, customers that make upgrades to existing generation, and customers currently exporting under the net-of-load construct as the Panel does not support the historic level of self-supply approach for these customers (status quo). At a minimum the Stage II filing will need to evaluate and consider the following three alternate approaches (which could also apply to idle):	54
3b	Setting the GBL based on a percentage of generation obtainable from feedstock which is available as a by-product of the industrial processes, such as black liquor or hog fuel;	54
3c	Setting the GBL at the same percentage for every customer on the basis of a percentage of their load or as a percentage of generation. For example a policy where the GBL is set for every customer based on 25 percent, 50percent or some other percentage of its load; and	54
3d	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.	54
	Adjustments to a GBL once set;	54
3e	How long GBL will last once it has been set;	54
3f	Whether changes to the GBL will be required due to load changes, and if so how;	54
3g	Whether each GBL will requires Commission approval; and	54
3h	If the GBL will be a capacity measure (MW), an hourly energy measure (MWh/hour), an annual energy measure (MWh/year).	54

1 2.4 APPLICABILITY OF SELF-GENERATION POLICIES

2 2.4.1 Eligible Customers

3 On Page 104 of the New PPA Decision the Commission specified that, “...*FortisBC must*
4 *establish Self-Generating customer policies for current and future customers at distribution and*
5 *transmission voltage.*”

6 Customers beneath a minimum threshold are not eligible for this policy as their situations are
7 already addressed elsewhere. As the Commission noted in its reasons for decision that are
8 Appendix A to Order G-32-15 (from the Stage I procedural conference):

9 The Panel notes that FortisBC has policies to deal with customers who would fall
10 under the net-metering generation cap of 50 kW. All parties who addressed this
11 issue at the Procedural Conference were in agreement that any GBL Guidelines
12 should apply to both transmission and distribution customers consistent with
13 Order G-60-14. **The Panel is in agreement with the applicability of any GBL**
14 **Guidelines to both transmission and distribution customers with the caveat**
15 **that it should only be applied to customer generation facilities of over 50**
16 **kW.**

17 FBC assumes that more specifically, with regard to service voltage, the Commission intends
18 that eligible customers will be those served at *Transmission Voltage*, defined in the FBC Electric
19 Tariff BCUC No. 2 as having a nominal potential greater than 35,000 volts measured phase to
20 phase and *Primary Voltage* which is similarly defined as having a nominal potential of 750 to
21 35,000 volts measured phase to phase.

22 Within the context of the SGP, FBC considers *current* (in relation to customer) to denote a
23 customer that currently has self-generation, while the term *future* could mean an existing FBC
24 customer that does not have self-generation that is interconnected with the FBC system, as well
25 as a customer that is not yet connected as either a load or self-generator.

26 FBC currently has three customers with self-generation above the thresholds noted above:

- 27 1. Zellstoff-Celgar Limited Partnership (Celgar) – Celgar takes service on Rate Schedule
28 31 – Large Commercial Service – Transmission, as well as RS 37 - Large Commercial
29 Service – Stand-by Service.
- 30 2. Tolko Industries Ltd. (Tolko) – Tolko takes service on RS 30 – Large Commercial
31 Service – Primary
- 32 3. City of Nelson/Nelson Hydro (Nelson) – Nelson takes service on a Wholesale rate
33 schedule (RS 41) and is connected at both Transmission and Primary voltages.

34

1 While the Commission determined in the New PPA Decision that the FBC SGP needs to apply
2 to customers served at both Transmission and Distribution (Primary) voltages, it has also
3 determined that the Company's Stand-by Service is restricted to customers taking service on
4 Rate Schedule 31.¹⁴

5 It will therefore be necessary, prior to FBC fully implementing its proposed SGP, to gain
6 Commission approval of an applicable Primary Stand-by rate and the addition of Stand-by
7 Billing Demand (SBBD) as a billing determinant in RS 30. FBC discusses this further in Section
8 6.

9 With regard to the potential for a Wholesale customer, whether connected at Transmission or
10 Primary voltage, to take service pursuant to the policies discussed in the Application,
11 discussions, consultations and Commission processes regarding the FBC SGP have to date
12 focused solely on the provision of service to Industrial customers. Although the City of Nelson
13 and the British Columbia Municipal Electrical Utilities (BCMEU) have been engaged and
14 provided comment to the effect that the SGP should apply to Wholesale customers,¹⁵ no other
15 party has addressed this possibility and the matter was not raised in the Stage I Decision. In
16 the opinion of FBC there has been insufficient exploration of the potential application of the SGP
17 to Wholesale customers, which have distinct issues, to conclude that an outcome of this
18 Application will be a SGP that applies universally. To be clear, the Company is not opposed to
19 the future consideration of such issues, but believes that the application of the SGP currently
20 being considered to Wholesale customers is beyond the intended scope of the current process.
21 It may be that discussion of the situation of Wholesale customers could be informed to some
22 extent by practice under the SGP, though if ultimately made applicable it would need to be
23 adjusted to address their distinct issues.

24 Turning to another point (though still within the ambit of discussing eligibility), the Company
25 notes that any self-generating customer whose conduct causes a reduction in revenue to FBC
26 without at least an equal reduction in power purchase costs does not provide a net benefit.
27 Further, attempting to structure a mechanism for sharing benefits derived from an inflated value
28 for energy and capacity with such a customer would necessarily cause a negative impact on
29 other FBC customers. This is so regardless of the impact on BC Hydro and its customers,
30 which is a consideration related to Section 2.5 of the PPA.

31 **2.4.2 Eligible Technologies**

32 FBC proposes that its SGP apply only to resources that are clean or renewable as defined by
33 the CEA and regulations. This is in keeping with the Commission's findings in the Stage I
34 Decisions such as,

¹⁴ The Commission Panel determines that the Stand-by Rate will be available to Transmission Customers only. FortisBC is directed to update the language in Rate Schedule 37, Special Provision 1, to clearly indicate that the Tariff is only available to Transmission Customers (G-67-14 Decision, page 25).

¹⁵ BCMEU Submission on the Draft SSO Guidelines, page 1.

1 Lastly, certain parts of both the CEA and the BC Energy Plan apply to FortisBC.
2 Therefore, in the Panel's view, some consideration should be given to generator
3 type within the context of clean energy for both idle and new generation.¹⁶

4 FBC acknowledges that many of the benefits of self-generation would be present regardless of
5 the type of generation employed. However, as some types of generation may not further the
6 province's energy objectives and mindful of the Commission's statements, it does not appear to
7 be appropriate for the Company to displace its own clean and renewable resources with those
8 that may have a negative environmental impact.

¹⁶ Stage I Decision, page 45.

1 3. THE NET-OF-LOAD STANDARD

2 A self-generating customer is served on a net-of-load (NOL) basis when, prior to making any
3 self-generation output available for sale to a third party, it supplies its entire plant load from its
4 own generation facilities. Currently, all self-generators in the FBC service territory are served
5 on a NOL basis.

6 NOL is the current reality due at least in part to the BCUC directive 3 in Order G-60-14 which
7 states,

8 Until the addition of Commission-approved New PPA Section 2.5 Guidelines as
9 an appendix to the New Power Purchase Agreement, the net-of-load
10 methodology will be applied.

11 The status of the NOL construct remains an issue to be resolved in this Application as reflected
12 by the Commission's statements in the Stage I Decision as reflected in Table 2-1, items 1m and
13 2k, which respectively are:

14 Include a policy statement that clarifies the role of the net-of-load restriction
15 under a GBL construct.

16 The Panel supports the general concept that if a customer does not have a GBL
17 the net-of-load construct would be the default.

18 It is perhaps useful at this point to clarify FBC's interpretation and views on the NOL construct.
19 There appear to be two separate but related aspects of NOL service that can be conflated and
20 may present a difficulty in reaching a common understanding between participants in this
21 process. These are:

22 1. NOL as a mandatory element of service to self-generators. NOL in this context is based
23 on BCUC direction which is itself predicated upon the lack of a Commission-approved
24 FBC SGP that contains alternatives that customers can use in place of NOL. To be
25 clear, FBC does not support that the NOL construct thus described be continued.
26 Removal of this model of NOL service is a primary objective of the Application and FBC
27 expects that a mandatory NOL construct would disappear with the approval of the
28 alternatives.

29 2. NOL as the service delivery default. Even where an approved FBC SGP is in place and
30 a customer has an opportunity to take service in a manner that is not NOL, it may
31 choose to simply run its generator and make third-party sales when it is able, and have
32 FBC serve load when required. In other words, by choice, it has not made any other
33 arrangements with FBC such as the Self-Supply Obligation discussed in the following
34 section. This is what FBC meant in the Stage I Application when it stated, "Net of load"
35 reflects the way in which meters work". This aspect of NOL does not call for either
36 support or opposition: it is a simple reality reflective of the flow of electrons and the
37 resulting billing.

1
2 A simple analogy to that set out in subparagraph 2. above is the case where a residential
3 customer installs solar panels that can, at times, produce more power than the home is
4 consuming. The customer can enroll in the Company's Net Metering Program and receive
5 credit for that occasional excess generation. However, the customer is not required to do so
6 and can simply deliver energy to the grid without compensation, effectively taking service on a
7 NOL basis.

8 With the approval of the FBC SGP, NOL becomes a choice for the customer rather than the
9 only available option.

10 As part of its comments on the draft SSO Guidelines that were circulated by FBC for comment,
11 Celgar expressed the following regarding the NOL service standard:¹⁷

12 This is now the opportunity for FortisBC to clarify that it does not support the use
13 of the net-of-load construct just as BC Hydro does not support the use of the net-
14 of-load construct. We support the SSO methodology, but cannot support the net-
15 of-load construct as it should not apply under the SSO methodology. This is
16 because we believe that FBC should meet its Obligation to serve a self-
17 generation customer, unless the self-generation customer is taking service
18 pursuant to an SSO.

19 In contrast to the approach advanced by FortisBC for the ongoing use of the net-
20 of-load construct, BC Hydro serves the full load requirements of self-generation
21 customers, unless it has entered into either an EPA or IDA with the self-
22 generation customer. In this manner, BC Hydro accepts that it has an Obligation
23 to serve all load requirements of a self-generation customer, unless the customer
24 agrees to self-supply a portion of its load requirements.

25 In the opinion of FBC, Celgar is describing a construct that is incongruent with any mode of
26 service possible given the current regulatory environment.

27 BC Hydro will not serve the full plant load of a self-generating customer and allow that same
28 customer to simultaneously sell self-generation output to a third party other than BC Hydro, and
29 will only allow sales of below-load power to BC Hydro pursuant to a GBL.

30 The phrase, "*BC Hydro accepts that it has an Obligation to serve all load requirements of a self-
31 generation customer, unless the customer agrees to self-supply a portion of its load
32 requirements*", aptly describes NOL service.

33 With regard to the Celgar comment, "*We support the SSO methodology, but cannot support the
34 net-of-load construct as it should not apply under the SSO methodology*", FBC confirms that a
35 customer cannot be taking service pursuant to an SSO and be served on a NOL basis at the
36 same time. The two are mutually exclusive.

¹⁷ Public Consultation regarding the SSO is discussed in Section 4.1.1.16.

- 1 If a customer is not served pursuant to an SSO, and is not served on a NOL basis, it is unclear
- 2 to the Company what form of service remains other than having the utility serve the full plant
- 3 load while the customer is free to dispose of its generation without restriction.

- 4 If this practice were allowed the current regulatory process would be either quite brief or
- 5 unnecessary. Clearly this practice is not allowed nor should it be.

1 4. RECOGNIZING THE NET BENEFITS OF SELF-GENERATION

2 4.1 USES OF SELF-GENERATION

3 In Section 1, the Company noted that there are three types of customer scenarios that the
4 Company's comprehensive SGP must address:

5 Scenario 1: Customers with third party sales of self-generation not in excess of load;

6 Scenario 2: Customers that use self-generation to off-set load but are not selling any
7 self-generation; and

8 Scenario 3: Customers with third party sales of self-generation but only after off-
9 setting their full load.

10 For each of these customer scenarios, a customer may also be either current or future as
11 defined in Section 2.4.1.

12 In the Sections that follow, FBC will address each situation in further detail, beginning in Section
13 4.1.1 for customers that wish to sell self-generation output that is not in excess of load
14 (customers in Scenario 1), through the mechanism known as the Self-Supply Obligation (SSO).
15 This is followed in Section 4.1.2 by the Company's proposal to recognize the benefits of self-
16 generation for other customers (that is, customers in Scenarios 2 and 3) through the setting of
17 the *Stand-by Billing Demand* that resides in RS 37 and is billed through RS 31.

18 4.1.1 Scenario 1: Customers with Third Party Sales of Self-Generation Not in 19 Excess of Load – The Self Supply Obligation

20 In addressing the SGP for customers that wish to sell power to a third party, when that power is
21 not in excess of plant load, the Company has formulated a proposal that is informed by the
22 consideration in part 2 of Table 2-1 – those under the heading - *The GBL Guidelines need to*
23 *consider that:*. This proposal is consistent with the support that the Commission expressed in
24 the Stage I Decision for use of the GBL construct in Scenario 1.

25 On October 6, 2016, the Company circulated a Discussion Guide and Draft version of the Self-
26 Supply Obligation Guidelines for comment by interveners. Submissions received in response to
27 the draft Guidelines are attached in Appendix C.

28 4.1.1.1 SSO Defined

29 Within the FBC service area, an SSO is best defined as the threshold amount of load that
30 represents a demarcation point for the amount of electricity that the customer must generate for
31 self-supply prior to using any self-generation for sale to a third party. FBC recognizes that an
32 export out of the province is also a sale to a third party and as such the term "sales to a third
33 party" includes these types of sales.

1 An SSO is largely analogous with the established term *Generation Baseline*, or GBL. FBC is
2 using the alternate term because, while the *concept* of a GBL was introduced by the
3 Commission in Order G-38-01 in response to certain conditions that existed at the time, it has
4 since become associated with its use as part of BC Hydro’s Contracted and Non-Contracted
5 GBL Guidelines for specific purposes, which are distinct from the purpose it would be used for in
6 the FBC service area. FBC wishes to avoid any confusion that may result from using the same
7 term in the two service areas for different purposes. In submissions contained in Appendix C,
8 BC Hydro stated that it views “...as a positive step that FortisBC has chosen to use the term
9 ‘SSO’ and not ‘GBL’ to define a FortisBC customer’s self-supply obligation for the purposes of
10 the service that FortisBC is developing for its customers, as this may aid in avoiding further
11 confusion about BC Hydro’s use of Contracted GBLs...”

12 Similarly, the BCMEU state, “We agree with the idea of disconnecting from the BC Hydro
13 terminology (GBL etc....) and FortisBC terminology (SSO etc....). In fact the SSO concept is
14 much easier to understand and work with.”

15 4.1.1.2 Purpose and Principles of the SSO

16 In the Stage I Decision, the Panel indicated that it supports, “...a policy that allows customers to
17 export self-generated electricity, as long as the risk to other ratepayers due to the difference
18 between the regulated rates and the contract price or market price is mitigated.”¹⁸

19 Regarding the mitigation of risk, the Panel further concluded that it supports a GBL construct to
20 mitigate the risk to other ratepayers. A GBL construct demarks the amount of electricity that the
21 customer must generate for self-supply prior to using any self-generation for export.¹⁹

22 Given that the SSO is largely analogous to the GBL construct, its purpose is to mitigate the risk
23 to other customers that exists due to the activities of the self-generator. FBC considers that
24 “mitigate” cannot be taken to mean “eliminate” or there is no reasonable means by which the
25 current process can move forward. A benefit to any customer or group of customers cannot be
26 provided without an equal cost to remaining customers given the fixed revenue requirement of
27 the utility

28 The SSO is part of the broader FBC SGP for which the Commission has expressed that it has
29 as a primary objective, as discussed in Section 2.2.1, the removal of Section 2.5 of the New
30 PPA. FBC considers that the establishment of SSO Guidelines will effectively mitigate the risk
31 to other customers, and is sufficient to support the removal of the restrictions imposed by
32 Section 2.5 as preferred by the Commission, so that they do not continue to complicate the rate
33 design and regulatory proceedings for transmission voltage customers in the FBC service area.
34 The Commission concluded in the New PPA Decision, that such matters could be simplified if
35 FBC alone was in charge of its rate design for transmission voltage customers, unfettered by
36 additional restrictions due to BC Hydro’s concerns.

¹⁸ Stage I Decision, page 28.

¹⁹ Ibid, page 53.

1 However, as discussed in Section 2.2.1, FBC itself takes no position on the removal of the
2 Section 2.5 restrictions as in the opinion of FBC the current language in Section 2.5 allows for
3 coexistence with the SSO methodology it has proposed.

4 FBC also notes that in any event the current language of Section 2.5 itself, repeated below, may
5 provide for the removal of certain complications if there is Commission approval of an SSO. The
6 language provides that pursuant to Section 2.5 (b), Commission approval of an SSO provides
7 the basis for concluding that Section 2.5(a) (ii) will be without effect. FBC understands that BC
8 Hydro proposed the language in Section 2.5(a) (ii) with the expectation that the customer-
9 specific baseline would be determined in a manner consistent with that used for its own
10 customers. However, in the submission of FBC the inclusion of 2.5 (b) clearly acknowledges
11 the ultimate authority of the Commission to determine that an SSO adequately mitigates any
12 risk to the customers of both BC Hydro and FBC.

13 **2.5 Purpose/Limitation of use of Scheduled Energy**

14 (a) *Electricity taken under this Agreement:*

15 ...

16 (ii) *shall not be sold to any FortisBC customer with self-generation facilities, or*
17 *used by FortisBC to serve any such customer's load, when such customer is*
18 *selling self-generated Electricity unless a portion of the customer's load equal to*
19 *or greater than the customer-specific baseline is being served by Electricity that*
20 *is not Electricity taken under this Agreement, where such customer-specific*
21 *baseline is as determined in accordance with Commission-approved guidelines*
22 *and in consultation with the customer. (Emphasis added)*

23 ...

24 (b) *For greater certainty, Section 2.5(a)(ii) is intended to prevent FortisBC from*
25 *increasing its purchases of Electricity under this Agreement if such increased*
26 *customers with self-generation facilities purchasing Electricity from FortisBC at*
27 *regulated rates and simultaneously selling Electricity at higher rates, except as*
28 *otherwise approved by the Commission. (Emphasis added).*

29 **4.1.1.3 Commission Approval of SSO**

30 Each Self-Supply Obligation that is determined in accordance with the SSO Guidelines is
31 subject to the approval of the Commission. Once an SSO has been agreed upon with the
32 Customer, FBC will submit the customer data supporting the calculation of the individual
33 customer's SSO to the Commission in confidence. It will do so confidentially due to the
34 potentially sensitive commercial nature of the information.

1 **4.1.1.4 FBC SSO Guidelines**

2 The FBC SSO Guidelines are attached to this Application as Appendix A. Appendix A reflects
3 consideration of input received from stakeholders that reviewed the draft Guidelines that were
4 circulated in October 2016. Below is a discussion of each section of the SSO Guidelines,
5 beginning with Section 3 (Section 1 is *Applicability*, which is discussed above, and Section 2 is
6 *Definitions*).

7 **4.1.1.5 Section 3 – Obligation to Purchase**

8 Section 3 of the Guidelines sets out the obligations of both the customer and FBC with respect
9 to the supply of the customer load both above and below the level of the SSO.

By taking service pursuant to a Commission-approved SSO, the customer agrees that in any hour where plant load exceeds the SSO, it will purchase, and FBC agrees that it will supply, power in an amount equal to the difference between plant load and the SSO. This must occur even where no sale is in place and recognizing that the accounting for third-party sales may be done on an after-the-fact basis. For clarity, in the absence of third-party sales, the customer is not at liberty to increase the amount it self-supplies except in the case where FBC is unable to supply or otherwise mutually agreed to between the Customer and FortisBC. - **SSO Guidelines, Section 3.**

10

11 That is, at all times when the customer has generation output available at or above the level of
12 its SSO, it must supply plant load up to the level of the SSO. It must also purchase from FBC,
13 the power required to serve plant load above the level of the SSO.

14 Even in the event that no third party sales are occurring, the customer must purchase from FBC
15 the power required above the SSO even if the customer could supply some portion of plant load
16 above its SSO. Any imbalance between the sales amount and the required generation to match
17 the sales amount will be covered under the Wholesale Wheeling Tariff, even if the sales amount
18 is zero.

19 In turn, FBC is obligated to serve the plant load above the SSO at all times (under the same
20 conditions as it would for any customer) and will also serve load below the SSO if the customer
21 generation is insufficient. Such service will be at the rates under which the customer would
22 normally take service.

23 Section 3 of the SSO Guidelines discourages the customer from making short-term elections to
24 increase the degree to which it serves its own load and is intended to address the Commission
25 comment from the Stage I Decision that:

1 The Panel does not support a policy that would allow a self-generating customer
2 to elect, on a short term opportunistic basis, whether any incremental self-
3 generation above the GBL will be deemed to serve the customer's load or
4 deemed to be exported. (Item 2f from Table 2-1)

5 Section 3 of the SSO Guidelines is also in keeping with the Commission comment that:

6 The Panel supports the position that the GBL consequently defines the supply
7 obligation of the utility. The GBL is not calculated by establishing the supply
8 obligation but rather the amount of electricity that the customer must generate for
9 self-supply. (Item 2c from Table 2-1)

10 4.1.1.6 **Section 4 – Unit of Measure**

11 In the Stage I Decision, the Commission required the following question to be answered:

12 If the GBL will be a capacity measure (MW), an hourly energy measure
13 (MWh/hour), an annual energy measure (MWh/year). (Table 2-1, Item 3h)

14 Correspondingly, Section 4 of the SSO Guidelines provides:

The SSO is expressed in megawatts (MW). - **SSO Guidelines, Section 4.**

15
16 The SSO is expressed in megawatts (MW), but translates into an hourly obligation. In other
17 words, for a customer with an SSO of 10 MW, this means that in each hour where the customer
18 has sufficient generation available to do so, it must self-supply the first 10 MW of load.

19 4.1.1.7 **Section 5 – Determination of Initial Self-Supply Obligation**

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. - **SSO Guidelines, Section 5**

20
21 Section 5 of the SSO Guidelines addresses the determination of what FBC calls the Initial SSO.
22 In particular, when a customer first approaches FBC to request that an SSO be determined, and
23 assuming that this determination is then made in agreement with the customer, the resulting
24 measure is termed the *Initial* SSO. This is to distinguish this first determination from any future

1 determinations that are made (termed *Subsequent* SSOs, which are discussed in Section
2 4.1.1.10 of this document).

3 From the requirements listed in Table 2-1, FBC considers the following to be most relevant to
4 the determination of the SSO.

5 *(The SGP should) Apply to both current and future customers (Item 1a);*

6 *The Panel generally supports the setting of the GBL at the normal historical level for self-*
7 *supply for idle generation; however, a definition of idle will be necessary (Item 2h);*

8 *The Panel does not support the setting of the GBL for customer with new self-generation*
9 *that result in all self-generation being considered incremental and available for export*
10 *(Item 2i); and*

11 *The Panel does not support the setting the GBL for customers currently exporting under*
12 *the net-of-load construct being determined in the same manner as is proposed for*
13 *customers with idle generation (i.e. on the basis of preserving the status quo) (Item 2j).²⁰*

14 Subsections 5.1.1 – 5.1.3 of the Guidelines describe how the Initial SSO is set for the three
15 potential customer situations where an SSO is applicable (customers that sell self-generation to
16 third parties that is not in excess of load): existing customers with existing generation; existing
17 customers with new (future) generation; and new (future) customers with new (future)
18 generation.

19 In all cases, the SSO will be based on the *Annual Generation Used to Serve Load*. For a
20 customer with existing generation, the determination of Annual Generation Used to Serve Load
21 is based on an historical value. For new generation, the determination uses an engineering
22 estimate to determine the capability of the proposed generation, which is then treated in a
23 manner consistent with the historical determination.²¹

24 The key consideration for this determination is the value for *Annual Generation Used to Serve*
25 *Load*. Per the Guidelines, the basis for this value is as follows:

26 For an existing customer with existing generation, *Annual Generation Used to Serve Load* will
27 be determined using the representative year most recently completed at the time the Initial SSO
28 is being determined, where a representative year is one based on historical data under NOL
29 operation and must reflect normal levels of current generation and load.

30 For an existing customer with new (future) generation, *Annual Generation Used to Serve Load*
31 will be determined with reference to the nameplate capacity of all connected generating facilities
32 and adjusted by a reasonable capacity factor.

²⁰ “[O]n the basis of preserving the status quo” in this context refers to an outcome that results in the self-generator being required to serve 100% of its load as was required under the NOL scenario.

²¹ In the Stage I Application FBC proposed that new generation, which had not previously been used to serve load would, would be 100% available for sale to a third party(ies). Given the Commission determination stating non-support for this proposal, FBC has removed this proposal.

1 For a new (future) customer with new (future) generation *Annual Generation Used to Serve*
2 *Load* will be determined in the same manner as for an Existing Customer with new self-
3 generation facilities.

4 In all cases, once the Annual Generation Used to Serve Load has been determined, the SSO
5 calculation is the same: Annual Generation Used to Serve Load, divided by 8760 as the number
6 of hours in 365 days, and rounded to the nearest MW. This value is multiplied by 50% in
7 recognition of the shared net benefits that are assumed to flow from the presence of the self-
8 generator.

9 The 50% is also responsive to the difficulties that FBC has heard repeatedly in determining the
10 manner in which net benefits should be shared. FBC believes it provides a fair, consistent
11 approach and is similar to an approach that the Commission suggested, as returned to under
12 the next heading below.

13 For customers with new generation, the SSO Guidelines provide in Section 5.1.2 that the SSO
14 will be reviewed by FBC on an ongoing basis for 36 months and may be adjusted upwards
15 should actual annual generation exceed the annual generation assumed in the determination of
16 the SSO. This will correct for an SSO that is set too low which and which would otherwise
17 provide the customer with a greater opportunity for third party sales than is appropriate.

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

21 4.1.1.8 **Commission-Prescribed Approaches**

22 At page 54 of the Stage I Decision the Commission directed that in the Stage II filing FBC would
23 need to evaluate, in addition to any other approaches proposed, the following three alternate
24 approaches to setting a GBL (that is, in the context of FBC’s Stage II Application, the SSO):

25 (i) Setting the GBL based on a percentage of generation obtainable from feedstock
26 which is available as a by-product of the industrial processes, such as black
27 liquor or hog fuel;

28 (ii) Setting the GBL at the same percentage for every customer on the basis of a
29 percentage of their load or as a percentage of generation. For example a policy
30 where the GBL is set for every customer based on 25 percent, 50 percent or
31 some other percentage of its load; and

32 (iii) Setting the GBL based on the method put forward by BCMEU whereby new
33 generation could be considered new and have a designated GBL of 0 MW in
34 year 1 and a linear scale so that by year 30 the GBL on that generation is equal
35 to full nameplate.

36

- 1 FBC has proposed a variant of number (ii) from the listed options.
- 2 The Company does not consider setting an SSO with reference to a customer specific and
3 variable operational component (such as feedstock of fuel availability) to be practical given the
4 lack of visibility to FBC and the potential need to monitor this measure before and possibly after
5 the SSO has been set. Generally speaking, a consistent availability of fuel would result in
6 consistent levels of generation that would be incorporated into an SSO determined as the
7 Company proposes.
- 8 The method put forward by the BCMEU (number iii in the list above) is feasible, and FBC
9 recognizes that it is a suggestion that aims to ensure that both the self-generating customer and
10 customers generally share in the benefits provided by the generation. However, FBC does not
11 see any particular advantage to this method. Further, it sees a potential detriment flowing from
12 BCMEU's method. In this regard, by placing most of the shared benefit in the early years, the
13 other ratepayers are at risk in the case when it is "their turn" to reap the positive benefits and
14 there is no guarantee that the benefits will materialize. The self-generator may no longer be in
15 business or generating when the other ratepayers' time to realize a benefit arrives under
16 BCMEU's construct.
- 17 Neither alternative i or iii sets the SSO in reference to historical levels of generation used to
18 serve load.

19 4.1.1.9 **Section 6 – Use of the Initial SSO**

Once an Initial SSO has been approved by the Commission, the customer will have 60 months (the Initial Period) to begin taking service pursuant to its SSO. – **SSO Guidelines, Section 6**

- 20
- 21 Section 6 of the SSO Guidelines addresses in part, the Commission's query at page 54 of the
22 Stage I Decision on how long, once set, the GBL (SSO) will last.
- 23 FBC believes it is a reasonable expectation that once a customer decides to engage in third
24 party sales, that it is to start doing so within a 60 month period. This provides ample time to
25 negotiate a purchase agreement and arrange for transmission service if required.
- 26 Should a customer have an Initial SSO, but not actually use it within the 60 month period, the
27 Initial SSO will cease to exist. If, in the future, the customer again expresses an interest in
28 determining an SSO, the calculation would again be done with reference to the then-most
29 recent year.

1 4.1.1.10 **Sections 7 and 8 – Determination and Use of a Subsequent SSO**

In the event that the Initial SSO is no longer in effect, and a new or “Subsequent SSO” is required, the Subsequent SSO will be determined in the same manner as the Initial SSO. – **SSO Guidelines, Section 7**

If applicable, once any Subsequent SSO has been approved by the Commission, the customer will have 24 months to begin taking service pursuant to this Subsequent SSO. – **SSO Guidelines, Section 8**

2

3 Section 7 of the Guidelines states that in the event that the Initial SSO is no longer in effect, and
4 a new SSO is requested by the customer, the newly determined SSO will be called a
5 Subsequent SSO. There is no difference in the manner in which the Subsequent SSO is
6 determined. However, there are differences in the notification requirements and timeframe for
7 use.

8 Once a Subsequent SSO has been approved by the Commission, the customer will have 24
9 months to begin taking service pursuant to this Subsequent SSO.

10 This shortened life reflects the Company’s opinion that the customer is unlikely to request a
11 subsequent SSO unless it has some viable prospect for the disposition of the power already in
12 hand. A further 60 months (the duration associated with the Initial SSO) should not be
13 necessary.

14 4.1.1.11 **Section 9 - Adjustments to an SSO**

If material changes, which shall not include DSM initiatives either partially or fully funded by the Company, arise in a customer’s plant or generator operations such that either FBC or the customer believe the SSO that is currently in effect (either the Initial SSO or a Subsequent SSO) requires an adjustment, the parties agree to enter into negotiations to agree on an adjusted SSO. Notwithstanding the foregoing, each party has the right, in its sole discretion, to refuse to agree to any adjustment of the SSO then in effect. Such adjustments to a SSO are distinct from any determination of Subsequent SSO. Where the SSO is adjusted according to this clause is the Initial SSO, it would still be considered to be the Initial SSO after the adjustment. – **SSO Guidelines, Section 9**

15

16

1 On page 54 of the Stage I Decision the Commission indicates that the Stage II Application
2 should address whether changes to the GBL (SSO) will be required due to load changes and,
3 FBC assumes, due to changes in generation as well. FBC considers that there may be
4 conditions that could lead to the adjustment of an SSO, such as a permanent reduction in load
5 or generation that may result in physical changes to the plant or generator. FBC has not
6 provided a prescriptive list of conditions that would result in a change to the SSO. Rather, it
7 would be up to either the Company or the customer to initiate discussions on the possibility of a
8 change. It is anticipated that both parties would engage in discussions in good faith and
9 agreement would not reasonably be withheld.

10 Section 9 of the SSO Guidelines provides: Demand Side Management (DSM) activities that are
11 funded, in whole or in part, by the Company are not considered a reason to adjust an SSO.
12 Where an SSO exists, and the customer is able to sell power above that SSO, a DSM initiative
13 that lowers plant load will afford the customer an increased opportunity for third party sales.
14 FBC's other customers should not be funding an opportunity of this type.

15 Where one party brings forward a proposal for a change to an existing SSO, and agreement
16 cannot be reached, the dispute can be brought to the Commission for resolution.

17 4.1.1.12 **Sections 10 and 11 – SSO Persistence and Minimum Commitment**

Once a customer has received a Commission-approved SSO (whether the Initial SSO or any Subsequent SSO), that SSO will persist unchanged unless:

- a. A new SSO is agreed to by the parties as described in Section 8 above; or
- b. For an Initial SSO, service does not commence within the 60 month Initial Period; or
- c. Service utilizing an SSO does not commence within 24 months of the determination of any Subsequent SSO; or
- d. The customer ceases to utilize its Initial or Subsequent SSO and returns to NOL service for a period in excess of 3 months.

- SSO Guidelines, Section 10

18
19 Section 10 of the Guidelines provides a summary of the conditions that cause a change to an
20 SSO, and the how the life of an SSO may be impacted.

21 With respect to the minimum amount of time that a customer must utilize an SSO once service
22 pursuant to an SSO has commenced, Section 11 specifies a time period of 5 years. During this
23 time, the customer will continue to take power from FBC on a take or pay basis unless notice to
24 cease using the SSO is provided.

1 Section 11 also provides that such notice must be provided a minimum of 3 years prior to the
2 date at which the customer desires to cease to take service pursuant to the SSO. The customer
3 may revoke such notice provided that it does so at least 12 months prior to the expiration of the
4 existing 5-year term. Such notice shall begin a new 5-year minimum time to take service
5 pursuant to any SSO from the date of the notice.

6 4.1.1.13 **Section 12 – Notifications**

7 Notification to begin taking service, and to cease taking service, pursuant to an SSO must be
8 sufficient for FBC to adjust its resource requirement planning such that other customers will not
9 be adversely impacted, to the extent possible. The notification requirements in the Guidelines
10 are sufficient for this purpose. Section 12 provides the notification requirements as set out
11 below.

12 Initial SSO

13 A customer must provide at least 6 months of notice prior to the use of an Initial SSO. The
14 customer cannot provide notice prior to the approval of the SSO by the Commission.

15 Subsequent SSO

16 The customer shall provide at least 12 months' notice to FBC that service pursuant to a
17 Subsequent SSO will commence.

18 Termination

19 The customer shall provide at least 36 months' notice to FBC that service pursuant to the Initial
20 or a Subsequent SSO will cease.

21 4.1.1.14 **Section 13 – Net Benefits of Self-Generation**

22 Section 13 discusses the sharing of the Net Benefits of Self-Generation as provided for by the
23 establishment of an SSO. The sharing of benefits has been prescribed by the Commission as
24 noted in Table 2-1, Item 2d.

25 The Panel supports the policy where the net benefits are recognized and accrue
26 to both the self-generating customer and FortisBC's customers on a shared
27 basis.

By agreeing to a SSO, the customer and Company agree that all of the Net Benefits of Self-Generation to the customer and Company are recognized in the 50% factor applied to the Annual Generation used to Serve Load as used in the determination of the SSO. – **SSO Guidelines, Section 13**

28

1 A 50% factor has been chosen by FBC because the selection of a number other than 50%
2 would infer that the net benefits were in the favour of either the self-generating customer or the
3 Company's remaining customers and would require a potentially contentious and complicated
4 determination of the exact nature and magnitude of the net benefits. In the absence of such a
5 determination or a practical likelihood of achieving such a determination, the 50% figure is the
6 most fair.

7 One objective in arriving at generic SSO Guidelines is that they can be applied to all customers
8 in the same manner. While the Company acknowledges that the net benefits are situational,
9 attempting to determine exactly what those net benefits may be prior to incorporating them into
10 an SSO is complicated, potentially contentious, and unlikely to warrant the effort involved in
11 both that exercise, and in resolving any associated dispute that may need to be brought before
12 the Commission

13 4.1.1.15 **Sections 14, 15, and 16**

14 The remaining sections of the SSO Guidelines simply state that Commission approval is
15 required for any SSO or adjustment to an existing SSO (Section 14) and the customer
16 interconnection with the FBC system must apply to all applicable standards (Section 16). The
17 purpose of Section 15 (Transmittal of Power (Wheeling)) is to make clear that although the
18 establishment of an SSO provides certain rights to the customer, the provision of wheeling
19 services, if required, must be applied for through the existing separate process that has already
20 been established and is independent of the SSO determination.

21 4.1.1.16 **Public Consultation on the SSO**

22 On October 7, 2016 FBC circulated a discussion guide and draft SSO Guidelines to interveners
23 in the Stage I SGP process as well as participants in the May 25 2016 Workshop. The purpose
24 of sharing the draft Guidelines was to provide an opportunity for comment. Feedback was
25 received from Zellstoff-Celgar Limited Partnership (Celgar), BC Hydro, British Columbia Public
26 Interest Advocacy Centre representing the British Columbia Old Age Pensioners' Organization,
27 Active Support Against Poverty, Disability Alliance BC, Council of Senior Citizens' Organizations
28 of BC, Together Against Poverty Society, and the Tenant Resource and Advisory Centre *et al.*
29 (BCOAPO), British Columbia Municipal Electrical Utilities (BCMEU) and B.C. Sustainable
30 Energy Association and Sierra Club of British Columbia (BCSEA-SCBC). This correspondence,
31 and FBC's response to it, are attached to the Application as Appendices C and D respectively.
32 FBC has spoken with counsel for the Commercial Energy Consumers Association of British
33 Columbia (CEC) and understands that while CEC did not submit comments on the draft SSO
34 Guidelines, it does have further questions and concerns that it will seek to explore through an
35 Information Request process.

36 Celgar states in its letter that it, "...accepts that FBC's proposals in general terms are consistent
37 with the Commission's directive to establish FBC self-generation principles, and Celgar and
38 FortisBC have been able to negotiate and agree on a term sheet that sets a GBL for Celgar
39 based on FBC's proposed SSO methodology."

1 FBC can confirm that in discussions with Celgar, an SSO specific to Celgar has been agreed
2 upon that is entirely consistent with the methodology proposed by FBC in this Application. The
3 Company expects that if the Guidelines as proposed are approved by the Commission, FBC
4 would move expeditiously to submit the Celgar SSO to the Commission for approval.

5 Celgar's comment on the NOL construct as the default for service has been previously
6 addressed by FBC in Section 3.

7 Celgar also submits that it believes the Guidelines should have included a policy for long term
8 purchases from self-generation customers. FBC notes that the Guidelines are specific to the
9 establishment of the SSO. The matter of FBC purchases of customer generation is not a matter
10 for the SSO Guidelines themselves but is covered in Section 5 – Barriers to Self-Generation.

11 **4.1.2 Scenarios 2 & 3: Customers with Third Party Sales in Excess of Load or** 12 **no Third Party Sales – The SBBB Reduction**

13 For those self-generating customers that elect to remain on NOL service, either selling power to
14 third parties only after self-supplying their own load, or not selling power at all, no SSO will be in
15 place (these are the customers described by Scenarios 2 and 3 in Section 4.1). However, the
16 presence of the self-generation may still result in net benefits that should be recognized, and
17 shared between the self-generator and the other FBC customers.

18 In this regard, in the Stage I Decision at page 20, the Panel stated that the FBC SGP should,
19 *“Establish separate policies for customers that intend to use self-generation to off-set load and*
20 *policies related to customers who intend to export self-generation”*.

21 This section of the Application pertains to those customers that intend to use self-generation to
22 off-set load.

23 Based on the list and discussion of potential benefits provided by FBC in the Stage I
24 Application, the Commission stated,

25 The Panel also agrees with FortisBC that the most likely potential benefits from
26 the local installation of self-generation are due to the deferral or avoidance of a
27 required capital addition and a reduction in power purchases.²²

28 The list provided in Section 7.2 of the Stage I Application provided that benefits would most
29 likely come from or contribute to:

- 30 • Electricity self-sufficiency, reduced greenhouse gas emissions, or a reduction in the
31 need for utility-provided network capacity
- 32 • Deferred or permanent reduction in the need for utility provided generation, transmission
33 and distribution capacity
- 34 • Reduced transmission losses

²² Stage I Decision, page 18.

- 1 • Reduced environment impacts
- 2 • Improved reliability
- 3 • Avoided or deferred investments
- 4 • Relief of transmission congestion
- 5 • Replacement or complement of traditional power generation.

6
7 There are also a number of less tangible considerations that could inform the identification of
8 net benefits such as the principles provided by the Commission; namely economic efficiency,
9 fairness, consideration of BC Energy Policy, simplicity and transparency, and stability.

10 The Company has considered the evaluation of net benefits in light of the Stage I Decision and
11 the manner in which net benefits are proposed to be recognized, and concludes that it would not
12 be appropriate that infrastructure, reliability and transmission related elements factor into the
13 net-benefits discussion. Despite the fact that a customer may choose to off-set load and take
14 service under a combination of RS 31 and RS 37, FBC will not make any changes to the design
15 or construction of transmission facilities as a result of this, since it may be necessary to meet
16 the full load of the customer on those occasions when self-generation is unavailable. In
17 addition, the short-term commitment required for Stand-by Service does not support any long-
18 term infrastructure planning decisions.

19 It is reasonable to consider the power supply-planning implications associated with the addition
20 of the considerable load that would need to be accommodated should all FBC's self-generating
21 customers become full-requirement customers. This consideration can be reflected in a
22 reduction to the Stand-by Billing Demand based on the avoided cost of power purchases for
23 "load not served".

24 FBC has approached this aspect of the SGP in light of the Panel's view that, "...consideration of
25 the long term benefits of self-generation should be a key consideration for measuring the
26 benefits of self-generation given the long term nature of a self-generation investment and the
27 long term needs of FortisBC."²³

28 **4.1.3 Calculating the SBBB Reduction**

29 In Section 2 of this Application, FBC expressed the view that the SBBB provides the appropriate
30 means to share net-benefits for customers that are not selling power to third parties where such
31 power is not in excess of load. These customers are not able to have any net-benefit of self-
32 generation reflected through the setting of an SSO.

33 In the following sections, the Company describes how such a customer will have any net-
34 benefits of self-generation recognized through a reduction in its SBBB, which results in a direct

²³ Stage I Decision, page 19.

1 reduction in the fixed charges that are billed to the customer each billing period under RS 30²⁴
2 or RS 31.

3 In order to use a reduction in a customer's SBBB to reflect the net benefits of self-generation,
4 an assessment of the value of "load not served" due to the presence of self-generation is
5 required. At a high level, the value of "load not served" is equal to the difference between the
6 foregone revenue from serving the full load of the customer and the marginal cost of serving
7 that incremental load.

8 This analysis is a five-step process,

- 9 1. Determine the appropriate per kWh LRMC value of self-generating customer *load-not-*
10 *served*,
- 11 2. Determine a blended per kWh rate for the revenue foregone by not serving the full
12 customer load,
- 13 3. Multiply the difference of the values derived in Steps 1 and 2 by the amount of *load-not-*
14 *served* due the presence of the customer self-generation,
- 15 4. Reflect the 50% sharing of net-benefits by multiplying the result of Step 3 by 50%.
- 16 5. Translate this value into a KVA reduction in the SBBB.

17
18 Each of these steps is described in more detail in the following sections.

19 4.1.3.1 **Step 1 – Determine the Long-Run Marginal Cost for Rate Setting** 20 **Purposes**

21 FBC considers that the appropriate venue for the determination of any measure of LRMC is the
22 Company's Long Term Electric Resource Plan (LTERP) and associated regulatory process.
23 FBC expects to file its LTERP on November 30, 2016. In advance of the acceptance of FBC's
24 LTERP by the Commission, the Company is only able to make general assumptions about the
25 use of any LRMC within its SGP, but not any specific value.

26 In the following sections, FBC discusses alternatives for LRMC that the Commission determined
27 that FBC should consider²⁵, specifically: the LRMC used by BC Hydro; the LRMC used in the
28 Demand Side Management (DSM) Regulation; FBC's updated LRMC that is expected to be
29 filed as part of its next Long Term Electric Resources Plan, and the adjustments required to
30 determine a LRMC for the purpose of determining the SBBB Reduction.

²⁴ RS 30 would require changes as described in Section 6.

²⁵ Stage I Decision, Page 15

1 **4.1.3.1.1 BC HYDRO'S LONG RUN MARGINAL COST**

2 It would not be appropriate to import the LRMC developed by BC Hydro for use in FBC's service
3 area, given consideration of FBC's particular circumstances. Although BC Hydro and FBC both
4 investigate B.C. generation opportunities, it is not possible to draw a direct comparison between
5 BC Hydro's and FBC's stated LRMC values. There are notable timing differences for required
6 resources, locational differences in load and generation, volume differences in capacity and
7 energy requirements, and differences in governing policy that can cause BC Hydro and FBC to
8 consider different projects. BC Hydro has indicated that resources are required in the near
9 future to meet load^{26,27} and has identified specific resources that will be used to address these
10 load requirements. FBC's resource requirements are further out in time given its small energy
11 and capacity gaps in the near and medium term.

12 **4.1.3.1.2 THE DEMAND SIDE MANAGEMENT LRMC**

13 FBC intends to file in its upcoming LTERP details of how it has calculated a LRMC to use in the
14 evaluation of DSM programs; it is the marginal cost of acquiring electricity generated from clean
15 or renewable resources in British Columbia, as required by the Demand-Side Measures
16 Regulation²⁸. The Company is unable to provide a value at this time as it has not yet been
17 finalized or approved by the Commission.

18 **4.1.3.1.3 FBC'S UPDATED LRMC (FROM THE LTERP)**

19 In the FBC LTERP, FBC will also describe the calculation of a LRMC for the preferred portfolio
20 of resources proposed to be used to serve the total FBC customer load. DSM is a cost-effective
21 resource that is expected to contribute to meeting the Company's expected load growth, and will
22 be a component of FBC's preferred resource portfolio. The cost of DSM in the preferred
23 portfolio is the Total Resource Cost (TRC), which includes costs not paid by the utility, and is
24 the appropriate LRMC for the purpose of making resource decisions.

25 **4.1.3.1.4 A LRMC FOR SETTING RATES**

26 An appropriate LRMC for setting rates, including the SBBD Reduction, must reflect the avoided
27 costs to the utility (and hence) the remaining ratepayers. Therefore, any rates to be based on a
28 LRMC value must value DSM measures based on the Utility Cost (UC) for DSM rather than on
29 the TRC as the UC only considers costs the utility incurs to achieve the DSM results.

30 The Company expects that at the conclusion of the LTERP regulatory process a measure of
31 LRMC will be approved (for resource planning purposes), which will also determine the
32 commensurate LRMC for rate-setting, by replacing the Total Resource Costs of the DSM

²⁶ BC Hydro. Integrated Resource Plan. Chapter 2 Load-Resource Balance. Section 2.4.1 BC Hydro's Load-Resource Balances. November 2013.
URL: <https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/regulatory-planning-documents/integrated-resource-plans/current-plan/0002-nov-2013-irp-chap-2.pdf>

²⁷ BC Hydro. 2015 Rate Design Application. Evidentiary Update on Load Resource Balance and Long Run Marginal Cost. Section 1.2 LRB – October 2015 Load Forecast. February 18, 2016.
URL: http://www.bcuc.com/Documents/Proceedings/2016/DOC_45742_B-17_BCH_EVID_UPDT.pdf

²⁸ Demand-Side Measures Regulation 326/2008, section 4.(1.1)(b)(i)

1 measures in the preferred portfolio with the respective Utility Costs. This will be the value used
2 for the SBBB reduction. It will not however reflect the actual value of the power that would have
3 been used to self-serve the load at the time had FBC actually had to procure it.

4 For purposes of this Application and in the example that follows, FBC has used a value of
5 \$.085/kWh which, based on preliminary work done for the LTERP, is thought to be a reasonable
6 value.

7 **4.1.3.2 Step 2 – Determine the Blended Customer Rate**

8 In order to properly evaluate the overall proxy value to FBC's other customers of the *load-not-*
9 *served*, the Company will, as part of enrolling a customer on RS 37, establish a per unit value
10 for the foregone revenue rate to be subtracted from the appropriate LRMC per unit value as
11 determined in the previous section.

12 The foregone revenue rate is calculated as a blended value. The blended revenue rate is equal
13 to the total demand and energy charges divided by the kWh total plant consumption over a 12-
14 month calendar year under the assumption that FBC served the entire plant load (i.e., the
15 customer has no self-generation). Similar to the timeframe chosen for the setting of an SSO,
16 the Company will review load data from the previous year. The Customer Charge is not
17 included in any billing calculation as it is the same under any scenario.

18 In order to be consistent with the manner in which the LRMC is calculated in FBC's LTERP, and
19 which forms the basis for Step 1 of the calculation, the rates used in the calculation of the
20 foregone revenue rate are levelized utilizing a 6% discount rate. In the following example, rates
21 are assumed to rise at 1.4% per annum above inflation. This figure uses a 2% inflation factor,
22 which is consistent with the value assumed in the Company's internal planning, and reflects
23 current internal planning assumptions regarding rate increases for the next 5 years.

24 **4.1.3.3 Steps 3 to 5 - Example of an SBBB Reduction**

25 The final steps in arriving at an SBBB reduction are best described through an example.

26 For simplicity in this example, customer load is assumed to be flat with the same peak demand
27 in each one month billing period. As FBC has neither filed nor received Commission
28 acceptance of its LTERP or the measures or LRMC that it will contain, there is no accepted
29 LRMC number that FBC can use for this purpose. In the example below, FBC has used a figure
30 of \$.085/kWh to represent the LRMC of energy and capacity based on preliminary LTERP
31 findings. The calculation process will not change once a final LRMC number has been
32 determined.

33 Prior to the SBBB reduction, which is based on a 50-50 sharing of assumed net-benefits of self-
34 generation, the SBBB is 100% of the Stand-by Demand Limit.

1

Table 4-1: SBBB 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
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	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 SBBB Reduction		
p=o/d	Monthly SBBB Reduction (kVA)	2200

2

3 Note that in the example, the rates have been levelized over a 20-year term, and the resulting
4 SBBB reduction has been rounded down to the nearest 100 kVA figure. The reduction is
5 calculated by dividing the shared net-benefit by the levelized per-kVA Wires Charge Rate.

6 In this example, assuming that the customer had a generation capacity of 5 MVA, its
7 undiscounted SBBB would likely also be 5 MVA. The calculated reduction in the SBBB would
8 result in a new SBBB of 2,800 kVA, a reduction of 44%.

9 **4.2 SUMMARY**

10 Through the Self-Supply Obligation and Stand-by Billing Demand reduction, FBC has provided
11 a means to recognize the net-benefits of self-generation and return a portion of those benefits to
12 all customers on a 50-50 shared basis.

13 The SSO also provides a self-generating customer with the ability to sell a portion of its output
14 to a third party while mitigating any negative impacts on other customers. Given FBC's current

- 1 load and forecast supply situation and as will discussed further in the 2016 LTERP, the prospect
- 2 of negative impact on either FBC customers or BC Hydro customers remains remote for the
- 3 foreseeable future.

- 4 The SBBB reduction provides a similar net-benefits recognition for those self-generating
- 5 customers that choose not to sell a portion of their output or do so on a NOL basis.

1 5. BARRIERS TO SELF-GENERATION

2 In the Stage I Decision, the Commission included the directive that, “FortisBC’s SGP should
3 identify and mitigate market barriers to cost-effective clean self-generation”.²⁹

4 The Panel also noted that,

5 Whether a utility should do nothing, remove barriers or incent self-generation will
6 depend on the utility's particular circumstances. In the Panel's view removing
7 barriers to self-generation can help facilitate a level playing field between
8 customers with self-generation and transmission connected generation. This can
9 be of benefit to the entire province including FortisBC and its ratepayers if it is the
10 most cost-effective generation.³⁰

11 What constitutes a barrier to the installation of self-generation was also clarified in the Stage I
12 Decision:

13 In the Panel's view, there appears to be some confusion as to what it means to
14 remove a barrier and what constitutes an incentive. The following example may
15 help to clarify the Panel's understanding of the difference. A market barrier that
16 could exist for a customer with self-generation is difficulty accessing the market.
17 An example of removing a barrier would be for the utility to purchase the energy
18 from the self-generator at market prices. On the other hand incenting self-
19 generation might be offering the self-generator preferential terms, such as a
20 higher price, than it would offer to an arms-length party.³¹

21 The Company has considered the discussion of market barriers contained in the Stage I
22 Decision, as well as comments made during the May 25, 2016 Workshop.³²

23 With respect to the existence of a level playing field between an IPP and a self-generating
24 customer with a load for which FBC is the default provider, the Company does not believe that
25 an issue of fairness exists. Both the self-generating customer and the IPP have exactly the
26 same restrictions and responsibilities when it comes to arranging for any transmission service
27 from FBC, would be subject to the same tariffs, and have similar opportunities to make third
28 party sales of power. With the approval of the SGP included in this Application, self-generating
29 customers will be in a better position than under a NOL environment to realize value from their
30 self-generation investment.

31 An IPP without load may be able to sell 100% of its output while a self-generating customer
32 must first supply some portion of its load.

²⁹ Stage I Decision, page 11.

³⁰ Ibid, page 14.

³¹ Ibid.

³² All of the discussion in this section assumes that any policies to remove barriers only apply to clean energy projects as mandated by the Commission in the Stage I Decision at page 15.

1 For use by both the IPP and the self-generator, FBC has recently revised its transmission
2 service process and documentation to reduce the administrative complexity associated with
3 transmission interconnection and service.³³

4 FBC has proposed self-generation policies in this Application that remove barriers to self-
5 generation. A customer can either sell a portion of their self-generation to a third party rather
6 than meet 100% of its own load, or achieve a reduction in the RS 37 charges where a self-
7 generating customer does not choose to take service incorporating an SSO. It is appropriate
8 that one of these options be provided to all self-generators based on a sharing of the net
9 benefits they provide to the system.

10 However, while the further removal of barriers could involve FBC buying self-generated power,
11 neither the occurrence of such purchases by FBC, nor the pricing involved if purchases are
12 made, are a given. If FBC is to buy self-generation, this must be looked at on an individual
13 basis just as FBC would consider a new source of supply from any other source. Assuming the
14 sources of supply are comparable in terms of quality and profile, there is no inherent benefit or
15 reason to prefer one source of generation over another other than price.

16 Electricity purchases from self-generating customers may be a supply option for FBC in the
17 future. FBC considers self-generating customers to be larger, industrial customers that can
18 receive electricity from FBC as opposed to smaller, residential or commercial customers that
19 could provide distributed generation to FBC.

20 When assessing the value of self-generation supply, FBC must consider other relevant criteria
21 in terms of its supply requirements and its LTERP objectives, as it does with other supply-side
22 resource options. These include the energy and capacity profile (i.e. when is the electricity
23 provided to FBC during each month of the year), adherence to provincial energy and
24 environmental policy and cost effectiveness. The energy and capacity profile of the self-
25 generation supply needs to meet FBC's customer load requirements, providing energy
26 throughout the year and capacity during peak demand periods. Any self-generation should be
27 consistent with B.C.'s energy and environmental policies, such as meeting requirements in
28 terms of clean or renewable generation. If the self-generation supply is short term in nature, the
29 FBC would compare the cost to its short-term resource options, such as market supply or its
30 PPA with BC Hydro.

31 At this point in time, FBC does not have any specifics or indications of costs or other attributes
32 such as environmental or socio-economic characteristics. However, FBC will consider any self-
33 generation supply that is brought forward in light of FBC's resource planning requirements as
34 discussed above.

35 FBC is also not seeking additional sources of supply at this time and is therefore not actively
36 looking to purchase power from self-generating customers. However, whether this situation
37 persists will be a determination made during the LTERP process. If a self-generator could

³³ Further information is available at
<http://www.fortisbc.com/Electricity/CustomerService/TransmissionServices/Pages/default.aspx>

- 1 provide power at a cost lower than or equal to existing resources, there may be an opportunity
- 2 for FBC to purchase the output of the self-generation. In order to make this assessment, the
- 3 self-generating customer would need to approach FBC at which time the resource could be
- 4 examined in light of other comparable supply options available.

1 **6. IMPACTS OF THE SELF-GENERATION POLICIES**

2 As a result of Commission approval of the FBC SGP included in this Application, the Company
3 will need to amend or add to its existing tariff as discussed below.

4 **6.1 *THE NEED FOR A DISTRIBUTION STAND-BY RATE***

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

12 The principles of stand-by service are established in the FBC service area and developing a
13 Distribution Stand-by Rate should be a straightforward process.

14 **6.2 *TRANSMISSION RATE SCHEDULE UPDATE***

15 FBC does not currently have wheeling rates for industrial customers served at primary
16 distribution voltages. While the Company has been accommodating the use of its distribution
17 system for the transmission of distribution-connected customers' power for the purpose of third
18 party sales, the formalization of the SGP provides an impetus to update the current tariff.

19 **6.3 *CHANGES TO RATE SCHEDULE 30***

20 When the Stand-By Rate was approved for customers served on RS 31, the definition of "Billed
21 Demand" was updated in RS 31 to include an additional determinant. This section of the tariff
22 now appears as:

"Billing Demand"

The greatest of:

- i. eighty percent (80%) of the Contract Demand, or
- ii. The maximum Demand in kVA for the current billing month; or
- iii. eighty percent (80%) of the maximum Demand in kVA recorded during the
previous eleven month period.

Plus, for Customers with a Stand-by Billing Demand under RS 37 (except when
RS 37, Special Provision 7 applies);

23 Stand-by Billing Demand.

- 1 A similar change will be required to RS 30 such that customers taking stand-by service will also
- 2 have SBBB as a consideration in billing.

1 **7. REVIEW OF STAGE I DECISION REQUIREMENTS**

2 Returning to the Requirements of the Application discussed in Section 2.3, the table below contains a brief description of the
 3 Company's response to the individual items mentioned in the Stage I Decision.

4 **Table 7-1: Stage I Decision Review**

Self-Generation Policy Requirement as Contained in the Stage I Decision		Application Reference	Discussion
1	The Comprehensive SGP needs to:		
1a	Apply to both current and future customers;	13	Confirmed. See Sections 2.4.1 and 4
1b	Identify how long the policy will be in place and how often it will be reviewed or updated;	13	The SGP included in this Application are intended to be a standard component of the FBC service offering. They would be subject to periodic review in the same manner as other tariff supplements.
1c	Establish policies that outlines the circumstances under which FortisBC will do nothing, remove barriers or incent self-generation;	13-14	FBC will negotiate an SSO, reduce the SBBB, and discuss the purchase of SG power where it is a cost-effective alternative for FBC.
1d	Establish policies that assist in mitigating barriers to cost-effective clean self-generation;		See item 1c.
1e	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) FortisBC'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);	15	For customers with an SSO, customer benefits cannot be identified, and system/power supply benefits are assumed and incorporated into an SSO. Benefits for non-SSO customers are valued at the LRMC developed from the Utility Cost (UC) test for DSM which will be determined by the Company's LTERP process.

Self-Generation Policy Requirement as Contained in the Stage I Decision		Application Reference	Discussion
1f	Establish separate policies for customers that intend to use self-generation to off-set load and policies related to customers who intend to export self-generation;	20	Confirmed. Customers can use either an SSO or SBBB reduction to realize net-benefits of SG.
1g	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;	52	Confirmed. See item 1f.
1h	Address restrictions on generator type taking into consideration the applicable sections of the CEA and the BC Energy Plan for self-generating customers off-setting load as well as exporting;	21,40,45	SGP only applies to clean, renewable resources.
1i	Include policies that address both exporting to a third party, and exporting to FortisBC;	26	Third party sales are contemplated. FBC will also discuss purchasing output upon request though is not actively seeking additional sources of supply at this time.
1j	Establish a policy that defines how FortisBC measures cost-effectiveness when evaluating a potential long term energy purchase contracts with a self-generation customers;	52	FBC will use standard LTERP considerations when evaluating purchase decisions.
1k	Establish a policy that sets out criteria that will use when comparing a potential long term energy purchase contracts with a self-generation customers against other available resource options;	50-52	FBC will use standard LTERP considerations when evaluating purchase decisions.
1l	Identify any tariffs, agreements, rate schedules, interconnection issues, transmission access issues and any business practices necessary to facilitate such exporting to a third party or to FortisBC; and	26	Done. See Section 6.
1m	Include a policy statement that clarifies the role of the net-of-load restriction under a GBL construct.	47-48	Done. See Section 3.

Self-Generation Policy Requirement as Contained in the Stage I Decision		Application Reference	Discussion
2	The GBL Guidelines need to consider that:		
2a	The Panel supports a policy that allows customers with self-generation to export incremental self-generation to a third party as long as the risk to other ratepayers due to difference between the regulated rates and the contract price or market price is mitigated;	26-27	Third party sales are allowed. Customer impact is mitigated through the use of an SSO.
2b	The Panel supports a GBL construct to mitigate the risk to other ratepayers that demarks the amount of electricity that the customer must generate for self-supply prior to using any self-generation for export;	32	GBL (SSO) is incorporated into SGP.
2c	The Panel supports the position that the GBL consequently defines the supply obligation of the utility. The GBL is not calculated by establishing the supply obligation but rather the amount of electricity that the customer must generate for self-supply;	53	Confirmed.
2d	The Panel supports the policy where the net benefits are recognized and accrue to both the self-generating customer and FortisBC's customers on a shared basis;	29-31	Confirmed. Both the SSO and SBBB reduction reflect a sharing of net benefits.
2e	The Panel does not support the position that the sharing of net benefits is best reflected through the Stand-by Rate's SBBB, rather the Panel find that the GBL is the mechanism that reflects a sharing of the net benefits between the ratepayers and the self-generator;	31	FBC has used the GBL (SSO) for those customers that will have one (that is, those customers who will sell to third parties not in excess of load), but considers that customers without an SSO still require a mechanism for recognizing the net benefits.
2f	The Panel does not support a policy that would allow a self-generating customer to elect, on a short term opportunistic basis, whether any incremental self-generation above the GBL will be deemed to serve the customer's load or deemed to be exported;	25	A restriction that prevents this behaviour is incorporated into the SSO Guidelines. There are notification requirements to deal with this potential.

Self-Generation Policy Requirement as Contained in the Stage I Decision		Application Reference	Discussion
2g	The Panel does not support a policy where a customer with self-generation would have discretion as to whether they use their incremental self-generation to displace load or export once the GBL is set;	45	A restriction that prevents this behaviour is incorporated into the SSO Guidelines. The customer is on a take-or-pay requirement to meet its load.
2h	The Panel generally supports the setting of the GBL at the normal historical level for self-supply for idle generation; however, a definition of idle will be necessary;	44	Normal historical level of generation used for self-supply is used to set the SSO. No definition of idle is required under the FBC SGP.
2i	The Panel does not support the setting of the GBL for customer with new self-generation that result in all self-generation being considered incremental and available for export; and	44	Confirmed that a customer must supply some portion of load.
2j	The Panel does not support the setting 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).	46	Confirmed that existing customers would not have an SSO set at 100% of load.
2k	The Panel supports the general concept that if a customer does not have a GBL the net-of-load construct would be the default.	47	Confirmed.
3	The GBL Guidelines need to address:		
3a	Alternative methods for setting the GBL for customers with new generation, customers that make upgrades to existing generation, and customers currently exporting under the net-of-load construct as the Panel does not support the historic level of self-supply approach for these customers (status quo). At a minimum the Stage II filing will need to evaluate and consider the following three alternate approaches (which could also apply to idle):	54	Discussed in Application Section 4.
3b	Setting the GBL based on a percentage of generation obtainable from feedstock which is available as a by-product of the industrial processes, such as black liquor or hog fuel;		

Self-Generation Policy Requirement as Contained in the Stage I Decision		Application Reference	Discussion
3c	Setting the GBL at the same percentage for every customer on the basis of a percentage of their load or as a percentage of generation. For example a policy where the GBL is set for every customer based on 25 percent, 50percent or some other percentage of its load; and 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.		
3d			
	Adjustments to a GBL once set;	54	These items all covered in the SSO Guidelines.
3e	How long GBL will last once it has been set;		
3f	Whether changes to the GBL will be required due to load changes, and if so how;		
3g	Whether each GBL will requires Commission approval; and		
3h	If the GBL will be a capacity measure (MW), an hourly energy measure (MWh/hour), an annual energy measure (MWh/year).		

1

Appendix A

DRAFT SELF-SUPPLY OBLIGATION GUIDELINES

TARIFF SUPPLEMENT NO. ##

Self-Supply Obligation Guidelines

DRAFT

Order No.: G-##-##

Issued By: Diane Roy, Vice President, Regulatory Affairs

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1. Applicability

The Self-Supply Obligation (SSO) Guidelines (the Guidelines) apply to Eligible Customers of FortisBC Inc. (FBC or the Company) with clean and renewable generation located on the customer side of the meter, that intend to sell power, not in excess of load, to a third party, which may include FBC.

The purpose of the SSO is to establish the amount of electricity that a customer must self-supply. A SSO consequently defines the supply obligation of FBC, but does not create any obligation, or establish any pricing parameters, to purchase any of the output of the customer's self-generation.

Any customer without a Commission-approved SSO, or that has not yet commenced service pursuant to a Commission-approved SSO, will take service on a Net-of-Load (NOL) basis.

2. Definitions

In the Guidelines,

1. **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.
2. **Commission** - means the British Columbia Utilities Commission
3. **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.
4. **Existing Customer** – an Existing Customer will have at least 12 months of operational history for both the load and generation facilities prior to the date at which a request to determine an SSO is made to the Company.
5. **Existing Self-Generation Facilities** - Existing Self-Generation Facilities are those self-generation facilities, fueled by clean and renewable resources, that have been in normal operations for a period of at least 12 months prior to the date at which a request to determine an SSO is made to the Company.

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6. **Initial Self-Supply Obligation (Initial SSO)** – The Initial SSO is the result of the first SSO determination requested by the customer.
7. **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. **Self-Supply Obligation (SSO)** – the SSO demarks the amount of electricity that the customer must generate for self-supply prior to using any self-generation for another purpose.
8. **Subsequent Self-Supply Obligation (Subsequent SSO)** – A Subsequent SSO is any SSO that is determined for the customer after the Initial SSO is no longer in place, unless the Initial SSO has been adjusted in accordance with Section 9.

3. Obligation to Purchase

By taking service pursuant to a Commission-approved SSO, the customer agrees that in any hour where plant load exceeds the SSO, it will purchase, and FBC agrees that it will supply, power in an amount equal to the difference between plant load and the SSO. This must occur even where no sale is in place and recognizing that the accounting for third-party sales may be done on an after-the-fact basis. For clarity, in the absence of third-party sales, the customer is not at liberty to increase the amount it self-supplies except in the case where FBC is unable to supply or otherwise mutually agreed to between the Customer and FortisBC.

4. Unit of Measure

The SSO is expressed in megawatts (MW).

5. Determination of Initial Self-Supply Obligation

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

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5.1.1. Existing Customer with Existing Self-Generation Facilities

The Initial SSO will be determined using the representative year most recently completed at the time the Initial SSO is being determined, where a representative year is one based on historical data under NOL operation and must reflect normal levels of current generation and load. Any load or generation changes anticipated to occur in the future are not to be considered. If no year is representative, the Company and the customer will agree on what adjustments are required to the actual historical data such that it is representative.

5.1.2. Existing Customer with New Self-Generation Facilities

When an Existing Customer with an established historical load installs self-generation facilities, an assessment of the amount of Annual Generation Used to Serve Load must be made. This figure is to be agreed upon between the customer and the Company with reference to the nameplate capacity of all connected generating facilities and adjusted by a reasonable capacity factor. An SSO so determined will be reviewed by FBC on an ongoing basis for 36 months and may be adjusted upwards should actual annual generation exceed the current Annual Generation that was determined and agreed to during the assessment of either the Initial or Subsequent SSO.

5.1.3. New Customers

For a New Customer with new self-generation facilities, Annual Generation Used to Serve Load will be determined in the same manner as for an Existing Customer with new self-generation facilities.

6. Use of the Initial SSO

Once an Initial SSO has been approved by the Commission, the customer will have 60 months (the Initial Period) to begin taking service pursuant to its SSO.

7. Determination of a Subsequent SSO

In the event that the Initial SSO is no longer in effect, and a new or "Subsequent SSO" is required, the Subsequent SSO will be determined in the same manner as the Initial SSO.

8. Use of any Subsequently Approved SSO

If applicable, once any Subsequent SSO has been approved by the Commission, the customer will have 24 months to begin taking service pursuant to this Subsequent SSO.

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9. Adjustments to an SSO

If material changes, which shall not include DSM initiatives either partially or fully funded by the Company, arise in a customer's plant or generator operations such that either FBC or the customer believe the SSO that is currently in effect (either the Initial SSO or a Subsequent SSO) requires an adjustment, the parties agree to enter into negotiations to agree on an adjusted SSO. Notwithstanding the foregoing, each party has the right, in its sole discretion, to refuse to agree to any adjustment of the SSO then in effect. Such adjustments to a SSO are distinct from any determination of Subsequent SSO. Where the SSO is adjusted according to this clause is the Initial SSO, it would still be considered to be the Initial SSO after the adjustment.

10. SSO Persistence

Once a customer has received a Commission-approved SSO (whether the Initial SSO or any Subsequent SSO), that SSO will persist unchanged unless:

- a. A new SSO is agreed to by the parties as described in Section 8 above; or
- b. For an Initial SSO, service does not commence within the 60 month Initial Period; or
- c. Service utilizing an SSO does not commence within 24 months of the determination of any Subsequent SSO; or
- d. The customer ceases to utilize its Initial or Subsequent SSO and returns to NOL service for a period in excess of 3 months.

In the case of any of b., c. and d. above, the SSO will cease to be effective and the customer must request a Subsequent SSO to be determined as described in Section 7. For greater clarity, point d. does not apply within the notice periods that the SSO will be utilized in the future, but only after the SSO has been utilized and then ceases to be utilized.

11. Minimum Commitment

The minimum time period to take service pursuant to any SSO is 5 years. The customer can at any time provide a minimum 3 year notice to cease to take service pursuant to the SSO. The customer may revoke such notice provided that it does so at least 12 months prior to the expiration of the existing 5 year term. Such notice shall begin a new 5-year minimum time to take service pursuant to any SSO from the date of the notice.

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12. Notification:

Notification requirements regarding the initiation of service pursuant to SSO are as follows:

12.1 Initial SSO

Any customer that, for the first time, intends to begin taking service pursuant to a Commission-approved SSO, is required to provide 6 months' written notice to the Company. Service pursuant to a Commission-approved SSO cannot commence sooner than 6 months after an SSO is approved by the Commission. For greater certainty, it does not commence 6 months from the time that a customer first requests the determination of an SSO with FBC.

12.2 Subsequent SSO

The customer shall provide at least 12 months' notice to FBC that service pursuant to a Subsequent SSO will commence.

12.3 Termination

The customer shall provide at least 36 months' notice to FBC that service pursuant to the Initial or a Subsequent SSO will cease.

13. Net-Benefits of Self-Generation

By agreeing to a SSO, the customer and Company agree that all of the Net-Benefits of Self-Generation to the customer and Company are recognized in the 50% factor applied to the Annual Generation used to Serve Load as used in the determination of the SSO.

The customer further agrees not to claim the existence of any additional Net-Benefits of Generation over and above those that are recognized in accordance with the above paragraph in the Initial or Subsequent SSO except where additional self-generation may be added.

14. Commission Approval

The Initial SSO, the Subsequent SSO, and any adjustments, require the approval of the Commission.

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15. Transmittal of Power (Wheeling)

None of the agreement between the Company and the customer, or subsequent Commission approval of an Initial or Subsequent SSO, provides any rights to the customer for the use of the Company's Transmission Voltage or Distribution Voltage assets for the transmission of power. Any such use must be applied for separately and will be subject to the charges contained in the relevant Tariffs governing such use.

16. Interconnection Requirements

All interconnection facilities must comply with *FBC's Facility Connection Requirements* as may be updated from time to time.

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Appendix B

**SELF-SUPPLY OBLIGATION GUIDELINES
DISCUSSION GUIDE**



FORTISBC INC.

**Self-Generation Policy Application
Stage II**

**Self-Supply Obligation
Guidelines – Discussion Guide**

October 6, 2016

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1. INTRODUCTION

This Discussion Guide (Guide) is intended to familiarize the reader with certain of the draft policies that FortisBC Inc. (FBC or the Company) has developed for its customers with self-generation.

FBC invites comment on the proposals contained herein and will consider such comments as it drafts its final Self-Generation Policies. The Company has committed to file the Stage II Application by November 10, 2016 and will therefore require that any comments be received by October 20, 2016.

This Guide does not contain a summary of previous regulatory processes associated with the self-generation issue. Readers that may wish to review the relevant filings and Commission decisions are directed to two of the most recent documents:

- The FBC Stage I Self-Generation Policy Application dated January 9, 2015, Section 2; and
- The Stage I Decision in the Self-Generation Policy Application, Section 2, and Order G-27-16 dated March 4, 2016.

The overarching goal of the policies described in the FBC Self-Generation Policy Application is to provide a clear, workable, reasonable set of guidelines and policies that are fair to self-generating customers and non-self-generating customers alike.

With respect to customers with self-generation, there are a number of identifiable distinctions that are possible within that group and that have been recognized by the Commission in the Stage I Decision:

1. Customers that wish to use self-generation to off-set load but not sell self-generation to a third party;
2. Customers that wish to sell self-generation to a third party but only after offsetting their full load (net-of-load); and
3. Customers that wish to sell self-generation to a third party while simultaneously purchasing power from FBC pursuant to an established tariff rate.

In terms of customer class eligibility, these policies will apply to Large Commercial customers served at either Transmission or Primary Distribution voltages. FBC currently has two customers to which these policies would apply - Zellstoff-Celgar Limited Partnership (Celgar), and Tolko Industries Ltd. (Tolko).

1 With this Application, FBC has put forward a practical, easy to understand and administer Self-
2 Supply Obligation (SSO)¹ Guideline that allows customers with self-generation to realize a
3 benefit from their investment in clean, renewable generation, while mitigating the impact of that
4 activity on other customers.

5 An SSO established according to the SSO Guidelines will allow a self-generating customer to
6 engage in power sales through export, or with a third party including FBC and BC Hydro². A
7 customer that intends to use self-generated power to offset load only could establish an SSO,
8 but would not be required to, or be under any obligation to use it once established. In other
9 words, the establishment of an SSO creates an opportunity, but not an obligation. The SSO
10 itself is only a number, and has no effect until put into use.

11 For reasons explained in this and the following sections, FBC is not seeking to set the SSO for a
12 customer with self-generation strictly at the level of the normal historical level for self-supply, but
13 instead relies on the normal historical level for self-supply for the reference point in arriving at an
14 SSO that reflects the sharing of the net-benefits of self-generation.

15 The concept of a Generation Baseline (GBL) as a means of mitigating the risk to other
16 ratepayers was introduced by the Commission in its final determination on 'BC Hydro Obligation
17 to serve Rate Schedule 1821 Customers with Self-Generation Capacity' Application by Order
18 G-38-01 (G-38-01 Decision).

19 Order G-38-01 has served as a basis for the Commission's principle that utilities should not
20 allow their self-generating customers to arbitrage between embedded cost rates and market
21 prices to the detriment of ratepayers. FBC agrees with the conclusion of BC Hydro with respect
22 to Order G-38-01,

23 BCUC Order No. G-38-01 recognizes that customers with self-generation can
24 purchase electricity from BC Hydro and sell electricity simultaneously as long as
25 there is no arbitrage that is to the detriment of other customers.³

26 Or, generalized and restated using the language now preferred by the Commission⁴,

27 BCUC Order No. G-38-01 recognizes that customers with self-generation can
28 purchase electricity and sell electricity simultaneously as long as there is the
29 mitigation of the risk to other ratepayers.

¹ FBC has developed the term Self-Supply Obligation to replace Generation Baseline for reasons described in this Section.

² Any power purchase agreement would be the result of negotiations outside of the SSO process.

³ Exhibit B-4 IR 1.1.5, British Columbia Hydro & Power Authority Application to Amend TS No. 74 CBL Determination Guidelines for RS 1823 Customers with Self-Generation Facilities

⁴ In the Stage I Decision (page 28), the Commission stated, "...the Panel would like FortisBC to eliminate the word 'arbitrage' in any policy or guidelines that it may put forward in future filing and replace it with 'mitigate the risk to other ratepayers'."

1 This general conclusion was reiterated by the Commission in the Stage I Decision where it
2 noted that it supported, “...a policy where self-generating customers have the ability to export
3 incremental self-generation as long as the risks to FortisBC’s other ratepayers, due to the
4 differences between regulated rates and the contract or market prices, are mitigated through a
5 GBL.”, and that, “Any power generated above the GBL would be eligible for export and would
6 not be considered to harm other ratepayers.”⁵

7 In its Stage I Application, FBC advocated an incremental generation approach, that it
8 summarized as follows,

9 FBC customers with self-generation are able to export incremental self-
10 generation output to third parties, where incremental self-generation output is
11 power produced above the output normally used for self-supply as represented
12 by a Generator Baseline (GBL).⁶ (Emphasis added)

13 In addition to this determination of the basic GBL, the Company proposed that the net-benefits
14 of self-generation could be reflected through an adjustment based on the impact of the self-
15 generation facilities on the Company’s resource and capital planning processes. The Company
16 has considered the additional GBL determination options contained in the Stage I Decision, and
17 feedback received during the Stage II Workshop held on May 25, 2016, and customer
18 consultation. FBC now believes that a detailed determination of the output normally used for
19 self-supply is unnecessarily complicated and problematic in its application to customers with
20 different service characteristics, and in attempting to ensure that equitable treatment is
21 maintained. While FBC acknowledges that the very purpose of the Stage II Application is to
22 consider and suggest solutions to these issues, the use of an alternate methodology can
23 accomplish the mitigation of risk embodied by the GBL.

⁵ Stage I SGP Decision, page 39.

⁶ FBC Stage I Application (Exhibit B-1), page 24.

2. CONTEXT FOR THE STAGE II APPLICATION

2.1 THE STAGE I DECISION

As noted at the May 25, 2016 Workshop, the Stage I Decision contains a large number of deliverables provided by the Commission. A chart of SSO specific items is provided in Table 3.3.1, and compliance with the SGP requirements is shown in Table 3.3.2. FBC has paid particular attention to this most recent Commission direction in arriving at the structure of its policies.

At a higher level, FBC is also mindful of the following four considerations provided by the Commission in the Stage I Decision, in order of importance, which set the foundation for the Panel's framework for evaluation (Framework for Evaluation).

- FortisBC's SGP should satisfy the concerns raised in the New PPA Decision regarding Section 2.5.
- FortisBC's SGP should provide information, stability, transparency and consistency to guide customers and prospective customers considering making investments in self-generation in the FortisBC service area.
- FortisBC's SGP needs to take into consideration the relevant legislation including the applicable sections of the Clean Energy Act (CEA) and the 2007 BC Energy Plan: A Vision for Clean Energy Leadership Guidance (BC Energy Plan), as well as the Utilities Commission Act (UCA).
- FortisBC's SGP should identify and mitigate market barriers to cost-effective clean self-generation.

In the opinion of the Company, the Framework for Evaluation and the Stage I Decision expectations as listed in Tables 3.3.1 and 3.3.2 can effectively be incorporated into a Self-Generation Policy that provides a self-generating customer with an opportunity to realize value for its investment in generation assets through two complementary policy areas.

1. Development of *Self-Supply Obligation*⁷ (SSO) Guidelines that will allow for the Company and the SG Customer to determine the amount of self-generation output that must first be used to serve plant load prior to directing any amount of self-generation to another use, such as sales to a third party. Discussion of the SSO Guidelines as they relate to the SGP is the purpose of this Guide.
2. Removing the Barriers to Self-Generation – Policies that are in place to appropriately remove barriers to self-generation are comprised of:

⁷ FBC is using the term *Self-Supply Obligation* in place of the Generation Baseline (GBL) nomenclature for the reasons discussed in Section 3.

- 1 i. A policy that enables FBC to provide SG Customers that seek to sell power to FBC
2 with a purchase price for the power that reflects the value of the power in
3 consideration of other, comparable resources.
- 4 ii. A policy that enables FBC to provide SG Customers that do not seek to sell power to
5 FBC consideration for the net-benefit of the self-generation related to the resources
6 that FBC is not required to supply.
- 7 This Discussion Guide is focussed solely on the SSO Guidelines. The Self-Supply Obligation

8 **2.2 THE SELF-SUPPLY OBLIGATION DEFINED**

9 A SSO is largely analogous with the established term Generation Baseline, or GBL. FBC is
10 using the alternate term because, while the concept of a GBL was introduced by the
11 Commission in Order G-38-01 in response to certain conditions that existed at the time, it has
12 since become associated with its use as part of BC Hydro's Contracted and Non-Contracted
13 GBL Guidelines for specific purposes which are distinct from the purpose it would be used for in
14 the FBC service area. FBC wishes to avoid any confusion that may result from using the same
15 term in the two service areas for different purposes.

16 Within the FBC service area, an SSO is best defined as the threshold amount of load that
17 represents a demarcation point for the amount of electricity that the customer must generate for
18 self-supply prior to using any self-generation for sale or export to a third party.⁸ FBC recognizes
19 that an export out of the province is also a sale to a third party and as such the term "sales to a
20 third party" includes these types of sales.

21 The setting of an SSO, and its subsequent use will, regardless of the method ultimately
22 approved by the Commission, allow a self-generating customer to sell power that is not in
23 excess of its load. The setting of an SSO does not create any obligation, or establish any
24 pricing parameters, for FBC to purchase any of the output of a customer's self-generation.

25 Should the self-generating customer take service pursuant to a an SSO rather than on a net-of-
26 load basis, FBC's system load will be higher than it otherwise would be and therefore the
27 general level of rates could be impacted. Whether or not this impact is positive or negative
28 depends on the relative levels of the Company's Industrial rates to the price that must be paid
29 for the power required to serve the increased load.

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

⁸ Decision and Order G-27-16, page 32.

1 To the extent that at some point in the future the reverse may be true, the SSO mitigates, but
2 does not eliminate, the risk to other customers. The establishment of the SSO represents a
3 reasonable compromise.

4 In the context of the Stage II Application, the SSO Guidelines should be evaluated against the
5 same set of considerations put forward by the Commission for the setting of a GBL.

6 **2.3 SSO GUIDELINES**

7 The proposed FBC SSO Guidelines are attached as Appendix A to this document.

8 Key Components of the SSO Guidelines include:

- 9 • Eligible Customers are those Industrial customers served under Rate Schedules 30
10 (Large Commercial Service – Primary) and 31 (Large Commercial Service –
11 Transmission), as well as the Time-of-Use variants;
- 12 • The SSO is set where possible with reference to the most recent 12 months of self-
13 generation used to serve load;
- 14 • A 50% net benefit sharing factor is applied to the self-generation previously used to
15 serve load in all cases to reflect a sharing of the net benefits of self-generation;
- 16 • The SSO Guidelines apply to existing as well as any new customers;
- 17 • Once established, the SSO must be used within 5 years or it will expire and any
18 subsequent request for the establishment of an SSO will require a recalculation using
19 more current data;
- 20 • The notice period required to cease the use of an SSO is three years;
- 21 • The Customer must purchase all power requirements above the SSO from FBC; and
- 22 • Commission approval is required for all SSO related agreements.

23
24 In the SSO Guidelines, the setting of the initial SSO is reasonably straight forward. The bulk of
25 the Guidelines set out the terms and conditions for its use, including notification requirements,
26 subsequent adjustments, and expiry.

27 For readability, and to reflect the current reality at FBC, the ensuing discussion of the various
28 sections of the SSO Guidelines assumes the case of an existing customer with self-generation
29 that is currently being served on a net-of-load (NOL) basis. The Guidelines however contain
30 provisions for both existing and new customers.

31 **2.3.1 The Initial SSO**

32 As defined, the Initial SSO is the first SSO determination requested by the customer.

1 **2.3.1.1 Setting the Initial SSO (Section 5 of the SSO Guidelines)**

2 The Initial SSO will be determined using the representative year most recently completed at the
3 time the Initial SSO is being determined, where a representative year is one based on historical
4 data under NOL operation and must reflect normal levels of current generation and load. This
5 figure is then multiplied by a factor of 50%, then divided by 8,760 (the number of hours in 365
6 days) and rounded to the nearest MW.

7 As noted in Section 13 of the Guidelines, the 50% factor is intended to represent agreement on
8 the part of both the Customer and Company that all of the Net-Benefits resulting from the
9 investment made in Self-Generation to the Self-Generation Customer and the Company's other
10 customers are recognized.

11 In the Stage I Decision, the Commission directed FBC to ensure that any alternative method of
12 setting a GBL (SSO) should: "... reflect a sharing of benefits over the long-term, mitigate the
13 risk to other ratepayers, and treat all customers in a fair and comparable manner."⁹

14 One such alternative noted in the Stage I Decision was

15 Setting the GBL at the same percentage for every customer on the basis of a
16 percentage of their load or as a percentage of generation. For example a policy
17 where the GBL is set for every customer based on 25 percent, 50 percent or
18 some other percentage of its load.¹⁰

19 FBC has adopted a variation of this model because of its:

- 20 • Straight-forward and transparent nature;
- 21 • Applicability to current and future customers; and
- 22 • Recognition of sharing of the net-benefits of self-generation.

23
24 A 50% factor has been chosen by FBC because the selection of a number other than 50%
25 would infer that the net-benefits were in the favour of either the self-generating customer or the
26 Company's remaining customers and would require a potentially contentious determination of
27 the exact nature and magnitude of the net-benefits. In the absence of such a determination, the
28 50% figure is the most fair.

29 One objective in arriving at generic SSO Guidelines is that they can be applied to all customers
30 in the same manner. While the Company acknowledges that the net-benefits are situational, it
31 is also the case that attempting to determine what those net-benefits may be and then somehow
32 incorporating them into an SSO is problematic and unlikely to warrant the effort involved in the
33 exercise.

⁹ Stage I Decision, Page 46

¹⁰ Ibid

1 For a hypothetical customer, that in the previous year of normal operations, self-supplied 200
2 GWh for its own load, the SSO would be:

3
$$200,000 \text{ MWh} \times 0.5 \div 8,760 \text{ hours} = 11 \text{ MW}$$

4 Therefore, in each hour, provided that it had the generation to do so, the customer would have
5 to supply 11,000 kWh of energy.

6 Per Section 3 of the Guidelines, “Obligation to Purchase”, the customer must in each hour
7 purchase from FBC all energy required above the lower of its actual load or its SSO. The
8 customer cannot, in the absence of an export schedule, elect to increase the amount it self-
9 supplies in order to reduce its purchases from FBC.

10 **2.3.1.1 Use of the Initial SSO (Section 6)**

11 The Initial SSO is simply a number that establishes a right. Until a customer provides notice to
12 FBC that it intends to begin taking service incorporating its Initial SSO, and actually does so, it
13 has no effect.

14 Once an Initial SSO has been approved by the Commission, the customer will have 60 months
15 (the Initial Period) to begin taking service pursuant to its Initial SSO. During the Initial Period, the
16 customer may elect to take service utilizing the SSO and will provide at least 6 months' notice
17 that service pursuant to the SSO will commence, and such service shall be deemed to
18 commence upon the expiry of such 6-month period.

19 If service pursuant to the Initial SSO does not commence, the SSO expires and a new, or
20 *Subsequent SSO*, would need to be determined.

21 **2.3.2 The Subsequent SSO**

22 Section 7 of the Guidelines states that if an Initial SSO goes unused, and the Customer wishes
23 to re-establish an SSO with FBC, this Subsequent SSO will be determined in the same manner
24 as the Initial SSO, using the representative calendar year most recently completed at the time
25 the Subsequent SSO is being determined.

26 **2.3.2.1 Use of the Subsequent SSO (Section 8)**

27 Unlike the Initial SSO, the Customer will have only 24 months from Commission approval of the
28 Subsequent GBL to commence service pursuant to the Subsequent SSO, and will provide at
29 least 12 months' notice. Such service shall be deemed to commence upon the expiry of such
30 12-month notice. The rationale for the reduced life of the Subsequent SSO is that it is unlikely
31 that a customer would seek a Subsequent SSO unless it had also contracted for the sale of the
32 portion of its self-generation that was available.

1 **2.3.3 General Terms and Conditions (for both Initial and Subsequent SSO)**

2 **2.3.3.1 SSO Adjustments (Section 9)**

3 The SSO Guidelines do not include a prescribed list of conditions that would automatically result
4 in a re-visitation and adjustment of a Commission Approved SSO. Rather, an SSO Adjustment
5 may be sought by either the Customer or the Company if either party considers that the
6 Customer's plant or generator has undergone a material change. Changes that were the result
7 of a Company funded Demand Side Management (DSM) initiative would not be considered a
8 material change for this purpose. Any other change would need to be agreed upon by both
9 parties and approved by the Commission.

10 **2.3.3.2 SSO Persistence (Section 10)**

11 SSO Persistence refers to the lifespan of any Commission approved SSO. This element of the
12 SGP provides a response, with respect at least to the SSO, to the Commission Directive in the
13 Stage I Decision, "*Identify how long the policy will be in place and how often it will be reviewed*
14 *or updated*", and to the FBC indication in the Stage I Application that a future filing would include
15 a response to the question of, "How long the GBL will last once it has been determined."¹¹

16 The Company is not proposing that an SSO, once established, would remain in place in
17 perpetuity. Once a Customer has received a Commission approved SSO (whether the Initial
18 SSO or any Subsequent SSO), that SSO will persist unchanged unless one of the following 4
19 conditions exists:

- 20 1. For an Initial SSO, service does not commence within the 60 month Initial Period.
- 21 2. A new SSO is agreed to by the Parties as a result of an adjustment agreed upon by the
22 Company and the Customer and Approved by the Commission as envisioned by
23 Section 9 (Adjustments to an SSO) of the guidelines and discussed above,
- 24 3. If the SSO is a Subsequent SSO, the SSO will expire if service does not commence
25 within the 24 months of the determination of any that SSO; or
- 26 4. The Customer ceases to take service pursuant to either an Initial or Subsequent SSO
27 and returns to Net-of-Load service for a period in excess of 3 months.

28 **2.3.3.3 Minimum Commitment (Section 11)**

29 The minimum time period to take service pursuant to any SSO is five years and the Customer
30 can at any time provide a minimum three year notice to cease to take service pursuant to the
31 SSO.

32 FBC requires time to adjust its load forecast and supply portfolio in response to the load
33 changes of customers. Once such notice is given, the Customer may revoke the notice

¹¹ Stage I Application , Page 26

1 provided that it does so at least 12 months prior to the expiration of the existing five year term.
2 In a case such as this, the revocation of notice shall begin a new 5-year minimum time to take
3 service pursuant to any SSO from the date of the notice.

4 **2.3.3.4 Notifications (Section 12)**

5 **2.3.3.4.1 INITIAL SSO**

6 Service pursuant to a Commission approved Initial SSO requires 6 months' written notice to
7 FBC. In addition, service pursuant to the Initial SSO cannot commence sooner than 6 months
8 prior to approval by the Commission.

9 **2.3.3.4.2 SUBSEQUENT SSO**

10 The Customer is required to provide at least 12 months' notice to FBC that service pursuant to a
11 Subsequent SSO will commence.

12 **2.3.3.4.3 TERMINATION**

13 The Customer is required to provide at least 36 months' notice to FBC that service pursuant to
14 the Initial or a Subsequent SSO will cease.

15 **2.4 SELF-SUPPLY OBLIGATION (SSO) REQUIREMENTS**

16 During the May 25, 2016 Self-Generation Policy Workshop, FBC presented tables that
17 contained the SSO considerations and requirements contained in the Stage I Decision. The
18 content of these tables is repeated below along with a reference to the Stage II Decision. For
19 each requirement, where the GBL/SSO concept is relevant, the Company has made an
20 assessment of whether or not the proposed SSO Guidelines comply with the Stage II content.

21 **Table 3-1: Self-Supply Obligation Guideline Checklist for Compliance to Stage I Decision**

	Decision Page	Complies?
1. Allows customers with self-generation to export incremental self-generation to a third party	26-27	✓
2. Mitigates the risk to other ratepayers due to difference between the regulated rates and the contract price or market price;	26-27	✓
3. Demarks the amount of electricity that the customer must generate for self-supply prior to using any self-generation for export;	32	✓

	Decision Page	Complies?
4. Defines the supply obligation of the utility. Calculated by establishing amount of electricity that the customer must generate for self-supply;	53	✓
5. Net benefits are recognized and accrue to both the self-generating customer and FortisBC's customers on a shared basis;	29-31	✓
6. Net benefits are not reflected through the Stand-by Rate's SBBB, rather the SSO (SSO) is the mechanism that reflects a sharing of the net benefits between the ratepayers and the self-generator;	31	✓
7. The self-generating customer cannot elect, on a short term opportunistic basis, whether any incremental self-generation above the SSO (SSO) will be deemed to serve the customer's load or deemed to be exported;	25	✓
8. The customer with self-generation does not have discretion as to whether it can use its incremental self-generation to displace load or export once the SSO (SSO) is set;	45	✓
9. The setting of the SSO (SSO) is at the normal historical level for self-supply for idle generation (and includes a definition of Idle Generation.)	44	✗
10. The setting of the SSO for customer with new self-generation does not result in all self-generation being considered incremental and available for export.	44	✓
11. The setting of the SSO for customers currently exporting under the net-of-load construct is not determined in the same manner as is proposed for customers with idle generation (i.e. on the basis of preserving the status quo).	46	✓
12. In the absence of an SSO, the net-of-load construct would be the default.	47	✓

1

2

Table 3-2: Self-Generation Policy Requirements as Contained in the Stage I Decision

	Decision Page	Supports?
1. Apply to both current and future customers;	13	✓
2. Identify how long the policy will be in place and how often it will be reviewed or updated;	13	✓

		Decision Page	Supports?
3.	Establish policies that outline the circumstances under which FortisBC will do nothing, remove barriers or incent self-generation;	13-14	N/A
4.	Establish policies that assist in mitigating barriers to cost-effective clean self-generation;	5	N/A
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) FortisBC’s updated LRMC that is expected to be filed as part of its next Long Term Electric Resources Plan.	15	N/A
6.	Establish separate policies for customers that intend to use self-generation to off-set load and policies related to customers who intend to export self-generation;	20	N/A
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;	52	N/A
8.	Address restrictions on generator type taking into consideration the applicable sections of the CEA and the BC Energy Plan for self-generating customers off-setting load as well as exporting;	21,40,45	✓
9.	Include policies that address both exporting to a third party, and exporting to FortisBC;	26	✓
10.	Establish a policy that defines how FortisBC measures cost-effectiveness when evaluating a potential long term energy purchase contracts with a self-generation customers;	52	N/A
11.	Establish a policy that sets out criteria that FortisBC will use when comparing a potential long term energy purchase contracts with a self-generation customers against other available resource options;	50-52	N/A
12.	Identify any tariffs, agreements, rate schedules, interconnection issues, transmission access issues and any business practices necessary to facilitate such exporting to a third party or to FortisBC; and	26	N/A
13.	Include a policy statement that clarifies the role of the net-of-load restriction under a SSO construct.	47-48	N/A

1
 2 The items that are denoted with a “N/A” are not related to the SSO Guidelines, but will be
 3 addressed in a future filing that incorporates consideration of the FBC Long Term Electric
 4 Resource Plan (LTERP).

1 The one instance where FBC does not believe the SSO Guideline to be in strict compliance with
 2 the Stage II Decision is. “*The setting of the SSO (SSO) is at the normal historical level for self-*
 3 *supply for idle generation (and includes a definition of Idle Generation.)*” The Company believes
 4 that this requirement cannot be satisfied with respect to its lone self-generating customer that
 5 has expressed an interest in acquiring an SSO, since that customer has been self-supplying
 6 100% of its load for a decade and would therefore receive an SSO equal to 100% of its load in
 7 the absence of major assumptions concerning its service parameters. In addition, the Company
 8 believes that its proposed methodology does not require a definition for idle generation.

9 **2.5 SSO EXAMPLES**

10 **2.5.1 Initial and Subsequent SSO Setting**

11 **2.5.1.1 Existing Customer with Existing Self-Generation Facilities**

Service Parameters (prior year)	
Total Annual Load (MWh)	100,000
Load Served by FBC (MWh)	10,000
Load Served by Self Generation (MWh)	90,000

12
 13 During the most recent year prior to requesting an SSO, the Customer served 90,000 MWh with
 14 self-generation. The SSO would be determined as:

15
$$\text{SSO} = 90,000 \text{ MWh} \times 50\% / 8,760 \text{ hours} = 5 \text{ MW}$$

16 Each hour, this customer will be required to meet the first 5,000 kWh of plant load with self-
 17 generation prior to using its generation for another purpose.

18 **2.5.1.2 New Customer or Existing Customer with new Self-Generation**
 19 **Facilities**

Service Parameters (prior year)	
Total Annual Load (MWh)	100,000
Load Served by FBC (MWh)	100,000
Load Served by Self Generation (MWh)	- 0 -

20
 21 The customer intends to install a 15 MW generator in parallel with the FBC system that will be
 22 capable of both serving plant load and delivering power into the FBC system. An engineering
 23 assessment conducted by FBC with input from the customer suggests that the generation will
 24 operate such that the expected future load to be served by FBC would be 10,000 MWh with the

1 remaining 90,000 served by the self-generation. The SSO would then be determined as above.
2 Actual generation would be monitored and the SSO would be adjusted as required.

3 **2.6 QUESTIONS AND ANSWERS**

4 The Customer and the Company agree to an SSO that comes into effect on January 1, 2017.

5 Q. How does the January 1, 2017 SSO impact service to the Customer?

6 A. The establishment of an SSO has no effect until the Customer elects to begin
7 taking service pursuant to the SSO. In effect, the SSO establishes the right, but
8 not the obligation of the customer to elect to have FBC serve a portion of the
9 customer's load that is currently self-supplied.

10

11 Q. How does the customer commence taking service pursuant to its SSO?

12 A. For an Initial SSO, the customer must provide at least six months of notice to
13 FBC that it intends to begin taking service pursuant to its SSO. FBC requires
14 notice to adjust its supply portfolio so that it can meet its increased supply
15 obligations in the most cost-effective and secure manner.

16

17 Q. How long does a customer have, after the Initial SSO is set, to begin taking
18 service utilizing its SSO?

19 A. Service pursuant to an Initial SSO must commence within 5 years, or in the case
20 described in this example, December 31, 2021. The customer must therefore
21 provide notice by June 1, 2021.

22

23 Q. What happens to the Initial SSO if it is not used within 5 years?

24 A. The SSO will expire. Should the Customer wish to re-establish an SSO after this
25 point, a new reference period will be used and a Subsequent SSO would come
26 into effect.

27

28 Q. If the Customer begins taking service pursuant to an Initial SSO within the
29 required 5 years, what is the life of the SSO?

- 1 A. The SSO will persist until the Customer provides notice that it intends to cease
2 using it in accordance with the notification requirements, and subsequently
3 ceases its use
- 4
- 5 Q. Are the notification requirements different for a Subsequent SSO?
- 6 Yes. When a Subsequent SSO is established by Commission approval, the Customer
7 will have 15 months to begin taking service pursuant to the Subsequent SSO and
8 must give 12 months' prior notice to FBC. It is assumed that the establishment of
9 a Subsequent SSO will be undertaken in anticipation of a commercial
10 arrangement for the sale of the Customers output and the 5 year initial period is
11 no longer necessary.
- 12
- 13 Q. Is there a minimum term for the use of an SSO?
- 14 A. Yes. Both the Initial SSO and any Subsequent SSO, once in use, must be used
15 for a minimum of 5 years. In other words, the Customer must self-supply the
16 SSO amount for a 5 year period.
- 17
- 18 Q. What would happen if the Customer elects to use its SSO, and at the end of 2
19 years provides notice that it will cease to use the SSO at the end of the 5 year
20 term, but then at the end of year 3 advises that it has decided to continue using
21 the SSO beyond the initial 5 year period?
- 22 A. The SSO would remain unchanged, however, a new 5 year term would
23 commence at the end of year 3.

Appendix C

**SELF-SUPPLY OBLIGATION GUIDELINES
INTERVENER SUBMISSIONS**

BC~MEU

British Columbia Municipal Electrical Utilities
Cities of Penticton, Grand Forks, New Westminster, District of Summerland, Nelson Hydro



October 22, 2016

Corey Sinclair,
Manager, Regulatory Affairs,
FortisBC Inc

Via Electronic mail
electricity.regulatory.affairs@fortisbc.com

Dear: Mr. Sinclair

RE: Self Supply Obligation Guidelines – Stakeholder Comment

Thank you for the opportunity to comment on the draft guidelines. Following are our comments.

General

We agree with the idea of disconnecting from the BC Hydro terminology (GBL etc....) and FortisBC terminology (SSO etc....). In fact the SSO concept is much easier to understand and work with.

2.2 Lines 25-29

While it is true FortisBC would see a higher load with a self-generating customer on SSO rather than on a NOL basis, it is also true that FortisBC will see a lower load with a self-generating customer on SSO than FortisBC would see if the customer did not invest in self-generation at all. In other words, if there is any Self Supply Obligation, the customer's investment reduces load on the FortisBC system and by extension on the BC Hydro PPA.

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.

BC~MEU

2.3 Line 21,

Recommend changing to

“The Customer must purchase all power requirements above the SSO from FortisBC, unless otherwise mutually agreed to between the Customer and FortisBC”

Reason is that there are likely scenarios where it is in the interest of both the Customer and FortisBC to use some of the non SSO power locally – e.g. like Nelson and FortisBC agreed in 2008 where Nelson would use own generation to avoid setting new demand peaks – in the interest of both companies.

2.3.2.1 - line 28

Typo “GBL” s/b “SSO” ?

2.3.3.2 Persistence

If we understand correctly the SSO would persist until one of the four listed conditions would bring it to an end?

Overall we think you have a good draft. This issue is very important to some of the BC~MEU members and we expect to intervene in the actual application to the BCUC.

Yours truly



Alexander Love
BC~MEU

c: BC~MEU members

William J. Andrews

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October 20, 2016

Corey Sinclair, Manager, Regulatory Affairs,
FortisBC Inc.

By email: electricity.regulatory.affairs@fortisbc.com

Dear Mr. Sinclair:

Re: FortisBC Inc (FBC) Self-Generation Policy Stage II Application (to be filed by November 10, 2016),
FBC Self-Supply Obligation (SSO) Guidelines – Discussion Guide, October 6, 2016, and
Draft FBC Self-Supply Obligation Guidelines

These are the comments of B.C. Sustainable Energy Association and Sierra Club British Columbia in response to Ilva Bevacqua's October 7, 2016 email inviting comments on the SSO Guidelines Discussion Guide and the Draft SSO Guidelines.

1. The content of the proposed SSO Guidelines is commendably simple given the complex context. The discussion guide is helpful and clear (although questions remain).
2. BCSEA-SCBC are not taking a position on the proposed SSO Guidelines at this time. They want to learn more about (a) the intended meaning and the wording, (b) the balance between ratepayers' interests and self-generating customers' interests, and (c) the potential real world outcomes.
3. Without limitation, the following are some specific comments and questions.
4. The length of time that a self-generating customer is obligated to continue to take service under an SSO seems quite short in relation to FBC's planning horizon. This applies to both the initial duration of the SSO and the SSO customer's notice period for leaving the SSO.
5. 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.
6. The term "export schedule" is used in several places. The term is not defined and the implications are unclear.
7. The wording of the "obligation to purchase" and the definition of SSO seems awkward when it expresses the intention in terms of the self-generating customer being required to self-generate a certain amount of power. Perhaps this works, but it may be clearer to express the intention in terms of the consequences if the self-generating customer does not generate the defined amount of power. A deemed delivery concept might be considered.
8. The concept of "Net-Benefit" is unclear. Is it assumed that self-generation always entails a net benefit? Why?

9. Are there other factors that are relevant to the content of the draft SSO guidelines that are not mentioned in the discussion guide? Is there any *quid pro quo* for approval of the guidelines as proposed?
10. How exactly would the proposed SSO guideline affect Celgar in relation to the interests of ratepayers? How exactly would the proposed SSO guideline affect Tolko in relation to the interests of ratepayers? How would the SSO guideline as proposed affect the prospects for new self-generation, by existing or new customers? Do the proposed SSO guidelines involve a trade-off such that ratepayers are getting less advantage in terms of existing self-generation in exchange for greater advantage in terms of new self-generation?
11. What are the implications of excluding “DSM initiatives funded by the Company” from the prerequisites for adjustments to an SSO? What about DSM initiatives partially funded by the Company?
12. In conclusion, BCSEA-SCBC look forward to further clarification of FBC’s proposed SSO guidelines. BCSEA-SCBC would support a round of information requests when the proposal is filed with the Commission.

Yours truly,

William J. Andrews

A handwritten signature in black ink, appearing to read 'WJ Andrews', with a horizontal line extending to the right.

Barrister & Solicitor

Tom A. Loski

Chief Regulatory Officer

Phone: 604-623-4046

Fax: 604-623-4407

bchydroregulatorygroup@bchydro.com

October 20, 2016

Mr. Corey Sinclair
Manager Regulatory Affairs
1000-1111 West Georgia Street
Vancouver, BC V6E 4M3

Dear Sirs:

**RE: British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
FBC Self-Generation Policy Stage II Application
FBC Self-Supply Obligation Guidelines
Request for Stakeholder Comment**

BC Hydro writes in response to FortisBC's request for comments, sent via email dated October 7, 2106, to its 1) FBC Self-Supply Obligation – Discussion Guide; and 2) Draft FBC Self-Supply Obligation (SSO) Guidelines. BC Hydro appreciates the opportunity to provide comments to FortisBC prior to the submission that will be made to the BCUC in November. As we have communicated to FortisBC previously, we believe progress has been made with respect to FortisBC's Self-Generation Policy; however, we continue to have concerns that BC Hydro, and its ratepayers, will be negatively impacted with the approach proposed by FortisBC in these draft SSO Guidelines. Below are some high-level comments and preliminary feedback, which FortisBC is already aware of, but which we wish to communicate to all interested parties.

We view it as a positive step that FortisBC has chosen to use the term "SSO" and not "GBL" to define a FortisBC customer's self-supply obligation for the purposes of the service that FortisBC is developing for its customers, as this may aid in avoiding further confusion about BC Hydro's use of Contracted GBLs (which do not establish a self-supply obligation). It is also helpful in that the FortisBC draft guidelines provide that the "purpose of the SSO is to establish the amount of electricity that a customer must self-supply" (see page 1 of the Draft FBC SSO Guidelines). Accordingly, it is our understanding that the FortisBC SSO Guidelines are clearly distinguishable from BC Hydro's Contracted GBL Guidelines that seek to identify the amount of energy a customer normally generates for self-supply under current conditions for the purposes of incentivizing incremental or new electricity through an agreement between the utility and the customer.

In addition, BC Hydro supports that FortisBC has included an hourly (MW) SSO obligation as this aligns with the accounting methodology as agreed to between FortisBC and BC Hydro, and is consistent with the hourly requirement included as part

of the proposed Section 2.5 Guidelines as filed by BC Hydro with the BCUC in December 2014.

Although there are elements of the Draft SSO Guidelines which address some of the concerns we have raised in the past, it is still unclear to BC Hydro how the SSO Guidelines do not negatively impact ratepayers and, in particular, BC Hydro ratepayers. The methodology, as proposed by FortisBC, does not conform with Commission Order G-38-01 and the principle of not requiring the utility to supply increased embedded cost of service to facilitate a self-generating customer's exports to market. The Draft SSO Guidelines do not seek to identify *incremental* generation of a self-generating customer in excess of what the customer normally generates, but instead simply seek to identify 50 per cent of what a self-generating customer generates (in a recent representative year) to serve its plant load and then convert that annual number to an hourly MW figure. Our understanding is that once a FortisBC self-generating customer receives a Commission-approved SSO, and the customer chooses to use its SSO, then FortisBC will be required to *increase* its supply obligation by the difference between the SSO and the customer's normal self-generation output for the purpose of facilitating exports to market by that customer. We understand that FortisBC plans to resource such additional service requirements from its available resource stack, which may include the Power Purchase Agreement (PPA) with BC Hydro. In other words, no incremental generation is being provided by a FortisBC self-generating customer using a SSO-based service, but incremental generation is either being provided by a FortisBC resource or a BC Hydro resource to support the customer's export.

While we appreciate that FortisBC is seeking to reach a resolution with its customers on its Self-Generation Policy, we cannot agree that the PPA should be used as a resource required for providing incremental generation for this purpose as this may harm BC Hydro and its ratepayers. It is for this reason that Section 2.5 of the New PPA contains an additional limitation on FortisBC to ensure that it does not use PPA energy for the purpose of facilitating exports to market by its customers.

Although FortisBC's proposed SSO and BC Hydro's Contracted GBL are both baselines associated with a customer's generator, they are not equivalent – i.e., they will not be the same baseline, do not serve the same purpose, and cannot be used interchangeably. To be clear, and to avoid any misplaced expectations of FortisBC self-generating customers, BC Hydro will only purchase power in accordance with an energy purchase agreement or through a future call process; BC Hydro will not be purchasing power based on any SSO that may exist between FortisBC and a FortisBC self-generating customer unless the SSO is comparable to a baseline determined in accordance with the New PPA Section 2.5 Guidelines that BC Hydro has proposed. New PPA Section 2.5 Guidelines would be required given the different purposes of the FortisBC SSO and the baseline under Section 2.5 of the New PPA.

October 20, 2016
Manager Regulatory Affairs
1000-1111 West Georgia Street
Vancouver, BC V6E 4M3
FBC Self-Generation Policy Stage II Application
FBC Self-Supply Obligation Guidelines
Request for Stakeholder Comment

Page 3 of 3

For further information, please contact the undersigned.

Yours sincerely,



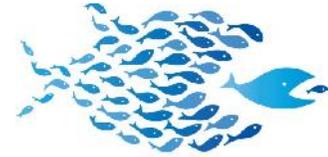
Tom Loski
Chief Regulatory Officer

ac/af

Copy to: Distribution list in FortisBC's email of October 7, 2016.

October 20, 2016

Via Email: electricity.regulatory.affairs@fortisbc.com



BCPIAC
Public Interest Advocacy Centre

Reply to: Tannis Braithwaite
tbraithwaite@bcpiac.com
Ph: 604-687-3034

Our file: 7590-S

Dear Sirs/Mesdames:

**Re: FortisBC Inc. (FBC) Self-Generation Policy Application Stage II
Self-Supply Obligation**

We write in response to your email dated October 7, 2016 regarding FBC's draft Self Supply Obligation (SSO) Guidelines which are proposed as a component of FBC's Self-Generation Policy.

Referring to the numbering used in Table 3-1 of FBC's SSO Guidelines Discussion Guide, which is titled "Self-Generation Policy Requirements as Contained in the Stage 1 Decision", BCOAPO submits that the proposed SSO Guidelines meets criteria 4, 6, 7 and 12. Of these, criterion 12 is the most significant in terms of ratepayer impact, and it does appear the proposed SSO Guidelines will prevent self-generating customers from electing, on a short term opportunistic basis, whether any incremental self-generation above the SSO will be deemed to serve the customer's load or deemed to be exported.

BCOAPO does not agree that the proposed SSO Guidelines meet the remaining criteria set out in Table 3-1. The proposed SSO Guidelines appear to allow self-generating customers to set their SSO at whatever level they prefer simply by self-supplying at that level for one year prior to requesting an SSO. Accordingly, while it is technically correct to say criteria 1, 3 and 8 are met because the SSO fixes (criterion 8) a demarcation point (criterion 3) beyond which incremental self-generation can be exported to a third party (criterion 1), the concept of "incremental generation" being used in this context is very different from the one used in BC Hydro service territory or in previous Commission decisions on self-generation policy. That is, the self-generation is "incremental" to the SSO, but is only accidentally (if at all) "incremental" to any significant (historical or other) reference point. This alternative meaning of "incremental generation" is proposed expressly because Celgar has seen self-supplying 100% of load for a decade (p.14) and presumably also because FBC has no need for, and so no reason to incent, actual incremental (or new) generation. The demarcation point is fixed for a period of time, preventing opportunistic arbitrage, but it is a demarcation point chosen by the self-generator based, presumably, on their view of how to take best advantage of arbitrage opportunities likely to arise over the upcoming three to five year period.

With respect to criterion 2, as noted above, the proposed SSO Guidelines mitigate the risk to ratepayers caused by moment-to-moment opportunistic behaviour, 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.

With respect to criterion 5, while it is technically correct to say the proposed SSO Guidelines recognize and accrue net benefits to both ratepayers and the self-generating customer, it does so on a purely arbitrary basis. We appreciate that FBC wants to simply split the net benefits 50/50 rather than engage in analysis on a case-by-case basis. We express no opinion at this time as to whether this approach is preferable to trying to establish actual net benefits on a case-by-case basis.

With respect to criterion 11, we are not aware that FBC has any customers exporting under the net-of-load construct. With respect to criterion 10, it appears to us that the setting of an SSO for a customer with new generation may well result in all self-generation being considered incremental and available for export. The proposed Guideline with respect to new generation merely specifies that FBC and the customer will agree to an SSO, without providing any basis on which such an agreement may rest.

Finally, we do not consider that the proposed SSO Guidelines satisfy the Commission requirements with respect to New PPA section 2.5. This is because the proposed Guidelines still appear to allow arbitrage between embedded cost rates and market rates.

Thank you for the opportunity to comment on the proposed SSO Guidelines.

Sincerely,
BC Public Interest Advocacy Centre

Tannis Braithwaite
Executive Director | Lawyer



October 20, 2016

FortisBC
Attention: Corey Sinclair, Manager of Regulatory Affairs
via Email

Dear Mr. Sinclair,

We write to you, in response to FortisBC's ("FBC") request for comments on the Self-Supply Guidelines and Discussion Guide (Guidelines) that you circulated by email dated October 7, 2016. The principle focus of our comments will be: 1) FBC's proposal that net-of-load be the default to the SSO methodology; and 2) the absence of a policy related to long-term contracts with self-generation customers.

At the outset, however, I will address in general Fortis BC's proposed approach to determine a self-supply obligation (SSO). As you are aware, through its NAFTA proceeding and before the BCUC, Celgar has been an advocate for the application of fair, consistent (and thus non-discriminatory), and transparent self-generator principles province-wide, including SSO principles (which BC Hydro refers to as generator baseline (GBL) principles). Nonetheless, Celgar recognizes that the BCUC has gone in a different direction, requiring FBC and BC Hydro each to develop their own approaches. Celgar acknowledges FBC's efforts to arrive at SSO principles and methodologies that are transparent, fair and nondiscriminatory *within the FBC service territory* and follow the directives of the Commission to support the "overriding principle where both the costs and benefits (net benefits) are recognized and accrue to both the self-generating customer and FBC's customers on a shared basis". Celgar accepts that FBC's proposals in general terms are consistent with the Commission's directive to establish FBC self-generation principles, and Celgar and FortisBC have been able to negotiate and agree on a term sheet that sets a GBL for Celgar based on FBC's proposed SSO methodology. We expect that once the SSO methodology is accepted and approved by the BCUC, Celgar and FBC will be able to complete a definitive agreement that can be submitted to the BCUC for approval. With that said, Celgar has and will continue to seek SSO/GBL policies and methodologies that result in transparent, fair and nondiscriminatory treatment of self-generators province-wide.

Use of Net-of-Load Construct

As noted in the Guidelines, the Guidelines should follow Commission determinations related to GBL/SSO mechanisms found in several decisions, including the Stage I Decision referred to by FortisBC.¹ In the Stage I Application, FBC advocated an incremental generation approach. In the Guidelines, FortisBC no longer supports an incremental generation approach and is now advocating an alternate methodology (SSO methodology) to determine a self-generation customer's self-supplied load.

The Guidelines also recommend continued use of the net-of-load criterion. If a self-generation customer does not use the SSO, then FortisBC recommends the use of the net-of-load criterion. Respectively, Celgar does not support the coupling of the SSO methodology with the net-of-load construct. In the Stage I SGP Decision, the Commission said:

FortisBC's SGP filed in Stage II needs to include a policy statement that clarifies the role of the net-of-load construct under a GBL construct.²

¹ Guidelines, p. 2, lines 14-15

² Stage I Decision, p. 48, also referenced in the Guidelines but modified on the basis that there is no difference between a GBL mechanism and the SSO mechanism except nomenclature.

This is now the opportunity for FortisBC to clarify that it does not support the use of the net-of-load construct just as BC Hydro does not support the use of the net-of-load construct. We support the SSO methodology, but cannot support the net-of-load construct as it should not apply under the SSO methodology. This is because we believe that FBC should meet its obligation to serve a self-generation customer, unless the self-generation customer is taking service pursuant to an SSO.

In contrast to the approach advanced by FortisBC for the ongoing use of the net-of-load construct, BC Hydro serves the full load requirements of self-generation customers, unless it has entered into either an EPA or LDA with the self-generation customer. In this manner, BC Hydro accepts that it has an obligation to serve all load requirements of a self-generation customer, unless the customer agrees to self-supply a portion of its load requirements.

Not only does BC Hydro not support the net-of-load approach, the Commission has not approved the net-of-load approach as the default alternative in BC Hydro's service area. BC Hydro considers the net-of-load approach a disincentive to self-generation investments. For similar reasons, Celgar believes that FBC should not propose the net-of-load approach as an alternative to the SSO approach.

Policy for long-term contracts with self-generation customers

The Guidelines distinguish the setting of an SSO from the pricing parameters for FBC to purchase any of the output of a customer's self-generation. (Guidelines, p. 6) Moreover, the draft Guidelines FBC circulated do not include a policy for the purchase of self-generation. BC Hydro does not set a GBL in the absence of an EPA or LDA. That is, in the same agreement BC Hydro agrees to the GBL and to the purchase of self-generation. Celgar believes policies related to the setting of the SSO/GBL and the purchase of self-generation both need to be included in the Guidelines. In the Stage I Decision, the Commission determined the following:

The SGP filed in Stage II needs to establish a policy that defines how FortisBC measures cost-effectiveness when evaluating potential long term energy purchase contracts with a self-generation customer and establish a policy that sets out criteria that it will use when comparing a potential long term energy purchase contract with a self-generation customer against other available resource options. Stage I, p. 52, see Guidelines p. 13

The Guidelines quote this direction, but only the portion of the direction from "establish a policy..." The full quote makes it clear, contrary to the approach adopted by FBC, that a policy related to the long-term energy purchase contracts with a self-generation customer is to be filed in this proceeding. In this regard, the Self-Supply Guidelines Discussion Guide is deficient. The Guidelines should have provided a policy related to long-term energy purchase contracts with a self-generation customer.

Celgar agrees with the FBC comment that "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."³ But FBC should not be in a position to benefit from self-generation when markets are both high and low. In the future it may be in the interests of FBC customers to enter into long-term purchase contracts with a self-generation customer. The policy for such long-term purchase contracts should be established now, not when markets are high.

Conclusion

Celgar believes the Guidelines unnecessarily couple the SSO methodology with the net-of-load construct. Celgar also believes the Guidelines should have included a policy for long-term purchases from self-

³ Guidelines, p. 6, lines 31-33

generation customers. We would like to see these concerns addressed before you file the Guidelines on November 10, 2016.

Once the BCUC approves the Guidelines as submitted, we expect to complete the definitive agreement, for submission.

Sincerely,



Brian Merwin
Vice President Strategic Initiatives

Appendix D

**SELF-SUPPLY OBLIGATION GUIDELINES
FBC RESPONSE TO INTERVENER SUBMISSIONS**

BCOAPO Comment Responses	
1	<p>The proposed SSO Guidelines appear to allow self-generating customers to set their SSO at whatever level they prefer simply by self-supplying at that level for one year prior to requesting an SSO.</p> <p>FBC Response: The SSO is set in consideration of an historic year which both the customer and FBC agree is representative of the normal operation of both the plant and the generator. FBC would not agree to an SSO that resulted from any obvious efforts on the part of the customer to lower generation simply to lower an SSO. The representative year must also be a year in which the customer was served on a net-of-load basis. Even if FBC agreement with respect to what constitutes a representative year were not required, a customer seeking to influence its SSO in the manner described would need to reduce the actual output of its generator for a period of a year, taking increased service from FBC. The economic impact to the customer could be significant. Regardless, a one year reduction in generation output would be obvious and FBC would bring the matter to the Commission for resolution if required.</p>
2	<p>...the concept of “incremental generation” being used in this context is very different from the one used in BC Hydro service territory or in previous Commission decisions on self-generation policy. That is, the self-generation is “incremental” to the SSO, but is only accidentally (if at all) “incremental” to any significant (historical or other) reference point.</p> <p>FBC Response: The self-generation situation within the FBC service area, and the opportunities that the Commission has determined will exist for self-generators are distinct from that of BC Hydro. The Commission has determined in the Stage I Decision that FBC customers can make incremental self-generation available to sell to a third party. No such requirement exists for BC Hydro. BC Hydro also has no requirement to attempt to determine what net-benefits may exist due to a particular self-generator. The Commission has determined that where a GBL (or in the FBC proposal, an SSO) exists, generation above that point is incremental and is available for sale. In the opinion of the Company, if FBC brings forward an Application that stubbornly sticks to a definition of incremental generation based on the criterion that the only power sales that are permitted are those that do not result in an increased take of power under RS31 or RS30, then neither of the Company’s two industrial customers will have gained anything as a result of the Application and the process cannot progress. The proposals put forward by the Company attempt to balance the interests of all customers while complying with the determinations made by the Commission.</p>
3	<p>With respect to criterion 2, as noted above, the proposed SSO Guidelines mitigate the risk to ratepayers caused by moment-to-moment opportunistic behaviour, 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.</p> <p>FBC Response: FBC does not agree. It is the view of the Company that mitigation of risk is not the same as the elimination of risk. Mitigation of the risk to other customers is provided solely by the SSO which prevents the entire output of the self-generation facilities to be sold to a third party while taking embedded cost service for plant load. Such mitigation is always in place.</p>
4	<p>With respect to criterion 11, we are not aware that FBC has any customers exporting under the net-of-load construct.</p> <p>FBC Response: Provided that the definition of export simply describes any sales to a third party, then FBC does have customers selling power on a net-of-load basis. The Company does not currently have customers exporting power out of the province.</p>

<p>5</p>	<p>With respect to criterion 10, it appears to us that the setting of an SSO for a customer with new generation may well result in all self-generation being considered incremental and available for export. The proposed Guideline with respect to new generation merely specifies that FBC and the customer will agree to an SSO, without providing any basis on which such an agreement may rest.</p> <p>FBC Response: This is not the case. Once an assessment of the Annual Generation Used to Serve Load is made for any customer (existing or new), the SSO is set using the same process as for a customer with existing generation. That is, the 50% sharing factor is applied.</p>
<p>6</p>	<p>Finally, we do not consider that the proposed SSO Guidelines satisfy the Commission requirements with respect to New PPA section 2.5. This is because the proposed Guidelines still appear to allow arbitrage between embedded cost rates and market rates.</p> <p>FBC Response: In the Decision accompanying Order G-60-14, the Panel said plainly, <i>“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.”</i>¹ It also made clear that, <i>“...the Panel’s preferred solution would have been to approve the New PPA without any restrictions in section 2.5. However, that solution now appears premature as FortisBC’s self-generation policies are not yet sufficiently developed, articulated and approved by the Commission.”</i>² FBC submits that it is the approval of a SGP in the FBC service area that would lead to the Commission being able to remove section 2.5 of the PPA. Presumably, the approval of the FBC SGP would be done with this outcome in mind. However, FBC acknowledges that the Panel also stated, <i>“Further, the Panel still agrees that self-generating customers should not be permitted to arbitrage between embedded cost rates and market prices to the detriment of other ratepayers.”</i>³ It is a simple reality that service pursuant to an SSO or GBL will involve some amount of self-generated power being sold and replaced with embedded cost power. This is true in the BC Hydro service area and would also be the case for FBC. Deeming those sales to not be arbitrage, to use the old term, or determining that such sales are acceptable due to the mitigation that an SSO provides does not change the reality. FBC cannot, at the same time employ a GBL type construct for its two customers for which the GBL could be determined, and absolutely prevent the simultaneous sales to a third party with supply from FBC.</p>

BCSEA Comment Responses

<p>4</p>	<p>The length of time that a self-generating customer is obligated to continue to take service under an SSO seems quite short in relation to FBC’s planning horizon. This applies to both the initial duration of the SSO and the SSO customer’s notice period for leaving the SSO.</p> <p>FBC Response: The comment is correct with respect to the Company’s long term planning horizon. However, the timeframes included in the SSO Guidelines were drafted in consultation and with the approval of the Company’s Power Supply and Planning group as providing adequate time to adjust the resource portfolio in response to the actions of the self-generator in the short and medium term. There is a balance between the commercial needs of the customer and the Company which has been respected in the notification terms.</p>
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¹ G-60-14 Decision, page 100

² Ibid, page 109

³ Ibid, page 100

<p>5</p>	<p>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.</p> <p>FBC Response: The 60 month Initial Period is only in place for the Initial SSO, with any Subsequent SSO having to be used within a shorter 24 month window. The 60 month Initial Period provides a self-generator with greater certainty when seeking an initial power sales contract, and reduces the likelihood that FBC and the customer will have to re-enter negotiations. The requirement also mirrors the obligation that a customer has to remain using its SSO once such service has started. The obligations are therefore symmetrical. FBC views it as unlikely that the use of the generation is likely to change much over the time when an SSO is not being used and shorter Initial Periods would not have much impact on the ability of the customer to act upon market opportunities.</p>
<p>6</p>	<p>The term “export schedule” is used in several places. The term is not defined and the implications are unclear.</p> <p>FBC Response: FBC will remove this term from the SSO Guidelines.</p>
<p>7</p>	<p>The wording of the “obligation to purchase” and the definition of SSO seems awkward when it expresses the intention in terms of the self-generating customer being required to self-generate a certain amount of power. Perhaps this works, but it may be clearer to express the intention in terms of the consequences if the self-generating customer does not generate the defined amount of power. A deemed delivery concept might be considered.</p> <p>FBC Response: FBC has reviewed. The description of SSO is consistent with that of the GBL used by the Commission. At this time, the Company is not considering changing these aspects of the Guidelines.</p>
<p>8</p>	<p>The concept of “Net-Benefit” is unclear. Is it assumed that self-generation always entails a net benefit? Why?</p> <p>FBC Response: The concept of Net-Benefits for any self-generation installation is intended to reflect the fact that there may be both costs to other customers, and benefits to other customers, depending on the particular circumstances of the installation being examined. FBC has discounted infrastructure related costs or savings due to self-generation due to the nature of service that it now has available to self-generators. And, since it has been directed to take a long-term view of net-benefits, it is likely that such benefits will be positive. As such, for the purposes of the SSO, the benefits are assumed to be positive.</p>
<p>9</p>	<p>Are there other factors that are relevant to the content of the draft SSO guidelines that are not mentioned in the discussion guide? Is there any quid pro quo for approval of the guidelines as proposed?</p> <p>FBC Response: There are no other relevant factors to the SSO Guidelines.</p>
<p>10</p>	<p>How exactly would the proposed SSO guideline affect Celgar in relation to the interests of ratepayers? How exactly would the proposed SSO guideline affect Tolko in relation to the interests of ratepayers? How would the SSO guideline as proposed affect the prospects for new self-generation, by existing or new customers? Do the proposed SSO guidelines involve a trade-off such that ratepayers are getting less advantage in terms of existing self-generation in exchange for greater advantage in terms of new self-generation?</p> <p>FBC Response: The approval of the Guidelines do not have an impact on ratepayers until such a time as any eligible customer both receives approval of its SSO from the Commission, and begins utilizing the SSO after providing FBC with the required notice. The impact to ratepayers of a self-generating customer obtaining an SSO and beginning to make additional power sales cannot be known until such time as it occurs but it could be either positive or negative. The Company wishes to point out that other customers would receive the benefit of transmission revenues from the</p>

	exported amount. In addition, the Company will optimize its overall power supply portfolio to minimize to the extent possible the costs of the increased supply requirement. The Company believes that since new generation equal to 50% of the associated load would be available for sale to a third party the incentive to install new clean and renewable generation is enhanced. The Company does not see any particular disadvantage to other customers as a result of whether the self-generation is new or existing.
11	<p>What are the implications of excluding “DSM initiatives funded by the Company” from the prerequisites for adjustments to an SSO? What about DSM initiatives partially funded by the Company?</p> <p>FBC Response: FBC does not believe it is reasonable for the Company to fund a DSM initiative where the result is not a reduction in Company load, but rather increases the amount of power available for the customer to sell. This would be the result of reducing an SSO in response to a DSM project. The reference to Company Funding is meant to exclude any project where any funding is provided by FBC. This will be clarified in the final SSO Guidelines.</p>

BC Hydro Comment Responses	
1	<p>...it is still unclear to BC Hydro how the SSO Guidelines do not negatively impact ratepayers and, in particular, BC Hydro ratepayers.</p> <p>FBC Response: FBC appreciates and shares the concerns of BC Hydro with respect to ratepayer impact. FBC has consistently taken a similar position over the past several years. However, a number of determinations have been made by the Commission that must also be considered. First, the Commission has expressed support for self-generating customers within the FBC service area to be able to sell power to a third party pursuant to some kind of generation baseline. Second, and again distinct from the BC Hydro service area, FBC must determine a way to identify and value the net-benefits of self-generation and to share those benefits between the self-generator and the other customers of the utility. In the view of FBC, it is not possible to provide an opportunity to self-generating customers without some corresponding risk that other customers may be negatively impacted, however small that risk may be. Third, the Commission examined the need for the protections provided by Section 2.5 of the PPA (as discussed in detail in Part 8 of the G-60-14 Decision) and has clearly stated it does not believe that the protection offered by Section 2.5 of the PPA is still required. The summary determination contained at page 98 of the New PPA Decision reads, “Accordingly, the Commission Panel determines that under the terms of the New PPA there is no significant material risk of harm to BC Hydro that warrants it reasonable to continue to include the restrictions as originally provided for in sections 2.5(a)(ii), 2.5(a)(iii) and 2.5(b) of the New PPA.”</p>
2	<p>The Draft SSO Guidelines do not seek to identify incremental generation of a self-generating customer in excess of what the customer normally generates, but instead simply seek to identify 50 per cent of what a self-generating customer generates (in a recent representative year) to serve its plant load and then convert that annual number to an hourly MW figure.</p> <p>FBC Response: As noted by BC Hydro, the SSO Guidelines are distinct from the BC Hydro GBLs and serve a different purpose. The purpose of the SSO is to identify that amount that a customer must self-supply, which is directly linked to the amount of self-generation that has been used to self-supply in the past. This aspect of the SSO determination is fairly consistent with the BC Hydro methodology for determining a GBL. However, for FBC the SSO also has an additional purpose which is to provide a mechanism to return the net-benefits of self-generation on a shared basis to</p>

	<p>the customer. Outside of this requirement, FBC considers that its methodology and that of BC Hydro are quite consistent. The SSO Guidelines do not simply seek to identify 50 per cent of what a self-generating customer generates to serve its plant load. Rather, the SSO seeks to identify 100 per cent of what a self-generating customer generates to serve its plant load, which is then adjusted to reflect the assumed shared value of the net-benefits of self-generation</p>
<p>3</p>	<p>Our understanding is that once a FortisBC self-generating customer receives a Commission-approved SSO, and the customer chooses to use its SSO, then FortisBC will be required to increase its supply obligation by the difference between the SSO and the customer’s normal self-generation output for the purpose of facilitating exports to market by that customer. We understand that FortisBC plans to resource such additional service requirements from its available resource stack, which may include the Power Purchase Agreement (PPA) with BC Hydro.</p> <p>FBC Response: FBC is required to minimize the cost of any incremental power supply requirements through optimization of its existing portfolio and where necessary the purchase of cost effective additional supply. On a shorter term basis this could certainly include a small amount of power purchased from BCH under the PPA—particularly for day to day optimization to deal with unexpected situations that may arise. For example, if in an hour FBC were to be purchasing excess amounts of PPA power from BC Hydro to allow Canal Plant Agreement (CPA) energy to be stored to serve other customers at a later time and the planned source of supply to meet the self-generation customer load became unavailable for any reason, it is reasonable to take no action if the FBC system overall still has sufficient resources.</p> <p>These type of short term operations reflect prudent system operations and should result in extremely little to no harm to BC Hydro ratepayers. On a longer term basis, it is expected that FBC increased supply requirements due to increased self-generation customer load will be met through a combination of existing surplus capacity and market energy purchases (or some other acquired resource). Significantly increased planned PPA purchases over a longer term period would be extremely difficult unless FBC was prepared to take Tranche 2 power from BC Hydro at greatly increased costs. 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.</p>
<p>4</p>	<p>...we cannot agree that the PPA should be used as a resource required for providing incremental generation for this purpose as this may harm BC Hydro and its ratepayers.</p> <p>FBC Response: See point 1</p>

BC-MEU Comment Responses	
2.3	<p>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.</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>
2.3 line 22	<p>Recommend changing to “The Customer must purchase all power requirements above the SSO from FortisBC, unless otherwise mutually agreed to between the Customer and FortisBC”</p> <p>Reason is that there are likely scenarios where it is in the interest of both the Customer and FortisBC to use some of the non SSO power locally – e.g. like Nelson and FortisBC agreed in 2008 where Nelson would use own generation to avoid setting new demand peaks – in the interest of both companies.</p> <p>FBC Response: FBC believes that this is a reasonable change and has incorporated into Section 3 of the updated draft Guidelines included with this Application.</p>
2.3.2.1	<p>Typo “GBL” s/b “SSO”?</p> <p>FBC Response: Yes. This error does not appear in the draft Tariff Supplement.</p>
2.3.3.2	<p>If we understand correctly the SSO would persist until one of the four listed conditions would bring it to an end?</p> <p>FBC Response: Correct.</p>

Appendix E

**FBC SELF-GENERATION POLICY APPLICATION
STAGE I DECISION**



IN THE MATTER OF

**FortisBC Inc.
Self-Generation Policy Application
Stage I**

**DECISION
and Order G-27-16**

March 4, 2016

Before:

**B. A. Magnan, Commissioner / Panel Chair
L. A. O'Hara, Commissioner
R. D. Revel, Commissioner**

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COMMISSION ORDER G-27-16

APPENDICES

Appendix A: Panel Issues List

Appendix B: List of Acronyms

EXECUTIVE SUMMARY

By Order G-60-14 and the decision issued concurrently, dated May 6, 2014, the British Columbia Utilities Commission (Commission) approved an application by British Columbia Hydro and Power Authority (BC Hydro) for a New Power Purchase Agreement between BC Hydro and FortisBC Inc. (FortisBC) under Rate Schedule 3808 (New PPA Decision). Section 2.5 of Rate Schedule 3808 restricts FortisBC from selling Rate Schedule 3808 electricity to a FortisBC customer when such customer is selling (exporting) self-generated electricity, unless a portion of the customer's load equal to or greater than the customer specific baseline is not sourced with any Rate Schedule 3808 electricity (Section 2.5 Restrictions).

In the New PPA Decision, the Commission anticipated that if FortisBC had a Commission approved self-generation policy, the Section 2.5 Restrictions could possibly be removed altogether, therefore improving regulatory efficiencies in the FortisBC service area. For this reason, the Commission directed FortisBC to initiate a consultation process in its service area and file a Self-Generation Policy Application (SGP Application).

FortisBC filed its SGP Application on January 9, 2015, and asserted that it complied with Order G-60-14, as FortisBC consulted with stakeholders and developed a high level self-generation policy statement (High Level Policy Statement) as well as addressed the specific policy subject areas identified in Order G-60-14, including arbitrage, the 1999 Access Principles, the Generator Baseline (GBL) Guidelines, and the benefits of self-generation (Supporting Policies). In the SGP Application, FortisBC requests that the Commission issue a final order concluding the review of the SGP Application without any further process. FortisBC proposes that the Commission determine that FortisBC has complied with Order G-60-14 and direct FortisBC to subsequently file a GBL Guidelines Application.

The Panel considered FortisBC's proposed regulatory process, and was concerned with the request for no further process. Following the February 5, 2015 procedural conference attended by FortisBC and all seven interveners, the Panel found that there was merit in having a two staged approach whereby in Stage I the Panel makes certain findings on the High Level Policy Statement and Supporting Policies, which will establish building blocks for the filing of the GBL Guidelines Application in Stage II.

In this decision (Stage 1), the Panel evaluates FortisBC's High Level Policy Statement and Supporting Policies with the objective of providing recommendations and guidance with the expectation that FortisBC's SGP and GBL Guidelines will:

- ultimately satisfy the concerns raised regarding the Section 2.5 Restrictions;
- comply with the applicable sections of the *Clean Energy Act* and the BC Energy Plan;
- provide information, stability, transparency and consistency to guide customers or prospective customers considering making investments in self-generation in the FortisBC service area; and to a lesser extent
- assist in moving towards a more level playing field for investment in generation in the FortisBC service area.

With regard to the High Level Policy Statement, the Panel agrees that each self-generation project has to be evaluated on a case-by-case basis. However, the Panel finds that the proposed High Level Policy Statement and GBL Guidelines Application would not be comprehensive enough to form an overarching SGP that would enable FortisBC to set the context under which to make such an evaluation or that would result in the eventual removal of the Section 2.5 Restrictions. The Panel also does not support FortisBC's statement that it is not the role of the utility to either encourage or discourage the installation of customer-owned generation but rather finds that FortisBC's SGP should establish under what circumstances FortisBC would do so.

For these reasons, the Panel directs FortisBC make, within 120 days of the date of this decision, a Stage II Self-Generation Policy filing that includes a comprehensive SGP in addition to the GBL Guidelines Application. The comprehensive SGP should establish policies that assist in mitigating barriers to cost-effective clean self-generation.

With regard to the Specific Policies and positions put forward in this Application, the Panel considers it critical that the SPG filed in Stage II focus on long term considerations rather than simply shorter term implications. For that reason the filing needs to include an analysis of alternate methods of measuring the long-term net benefits and cost-effectiveness of self-generation.

The Panel supports FortisBC's proposal for a sharing of the net benefits approach between ratepayers and the self-generator. The Panel understands that the net benefits of self-generation are different when a customer is exporting rather than using self-generation to displace their load; therefore there needs to be separate policies for each of these circumstances.

With regard to exporting, the Panel supports a policy that allows customers with self-generation to have the ability to export incremental self-generation to a third party as long as the risk to other FortisBC ratepayers, due to differences between the regulated rates and the contract or market price, is mitigated.

The Panel supports the use of a GBL construct to mitigate the risk to other ratepayers by demarking the amount of electricity that the customer must generate for self-supply prior to using any self-generation for export. However, the Panel does not support a policy that would allow a self-generating customer to elect, on a short term opportunistic basis, whether any incremental self-generation above the GBL will be deemed to serve the customer's load or deemed to be exported.

The Panel also supports the position that the GBL consequently defines the supply obligation of the utility but does not set it. In this regard the Panel determines that the 1999 Access Principles do not apply to any FortisBC SGP or GBL Guidelines.

The Panels has concerns with how FortisBC proposes to set the GBL under certain circumstances. While the Panel generally supports a policy that sets the GBL based on historical generation used for self-supply (the status quo) for a self-generation customer with idle generation, it does not support a policy whereby all generation for a customer with new self-generation is determined to be incremental and available for export. In the Panel's view such a policy unfairly treats existing self-generation differently from new self-generation simply on the basis of when the investment in self-generation was made. The Panel also does not support a policy that would

set the GBL for customers currently exporting under the net-of-load construct to be determined on the same basis as proposed for a customer with idle generation (i.e. on the basis of preserving the status quo).

To address these concerns the Stage II filing needs to consider alternatives to setting the GBL for customers with new generation, customers that make upgrades to existing generation, and customers currently exporting under the net-of-load construct.

With regard to FortisBC being required to go further and incent self-generation by purchasing incremental self-generation, in the Panel's view, such a policy should not be required. Furthermore, the Panel does not support a policy that would require FortisBC to purchase incremented energy that it does not need or that is not cost effective. However, FortisBC should establish a policy that defines how it measures cost-effectiveness when evaluating potential long term energy purchase contracts with a self-generation customer and establish a policy that sets out those criteria it will consider.

Lastly, the Panel encourages FortisBC to address demand side measurement (DSM) programs for self-generation customers as part of its next resource plan and or its next DSM Expenditure filing.

1.0 INTRODUCTION

FortisBC Inc. (FortisBC, Applicant or FBC) filed its Self-Generation Policy Application (SGP Application, Application) with the British Columbia Utilities Commission (Commission, BCUC) on January 9, 2015.

FortisBC states that the Application was filed in compliance with:

- (i) Order G-60-14 in the matter of the British Columbia Hydro and Power Authority (BC Hydro) Application for a New Power Purchase Agreement between BC Hydro and FortisBC under Rate Schedule 3808¹ (New PPA Decision).

Specifically, Directive 5 of Order G-60-14 (Directive 5) required FortisBC to:

Initiate a consultation process in its service territory to address or ensure:

- the potential benefits of self-generation;
- the 1999 Access Principles in the context of self-generating customers;
- if a Generator Baseline (GBL) methodology is proposed, GBL Guidelines for both idle historic self-generation and new self-generation [should be proposed]; and
- arbitrage is not allowed.

Directive 5 further required FortisBC to file a resultant SGP Application that establishes high level principles for its service territory; and

- (ii) Order G-67-14 in the matter of the FortisBC Application for Stepped and Stand-by Rates for Transmission [Voltage] customers (Stand-by Rate Decision – Stage I).

The Decision released concurrently with Order G-67-14 found that the development of the principles that Stand-by Billing Demand² are to reflect, are best determined through FortisBC's SGP Application.³

1.1 Background

“Self-generation” in this context means electrical power generation facilities that are installed at the same site as the customer’s plant, on the customer’s side of the point of delivery (distributed generation). Typically, by-product waste from the self-generator’s processes or operations is used to fuel the generator. This differs from transmission connected generation, such as a wind farm.

¹ BC Hydro Application for Approval of Rates between BC Hydro and FortisBC Inc. with regards to Rate Schedule 3808, Tariff Supplement No. 3 – Power Purchase and Associated Agreements, and Tariff Supplement No. 2 to Rate Schedule 3817, Decision dated May 6, 2014.

² A component of the Stand-by Rate Schedule 37

³ Decision attached to Order G-67-14. p. 56.

FortisBC currently has three customers with self-generation: Zellstoff Celgar Limited Partnership (Celgar), Nelson Hydro (the distribution utility of the City of Nelson) and Tolko Industries Ltd. (Tolko).⁴ FortisBC is not aware of any current or future customer that is considering the addition of self-generation facilities.⁵

As a result of previous Commission determinations, primarily with reference to the BC Hydro Application to Amend Section 2.1 of Rate Schedule 3808 Power Purchase Agreement, (BC Hydro Section 2.1 of the 1993 PPA Application), each self-generating customer in the FortisBC service area must first meet its own load on a dynamic hourly basis using its self-generation output prior to being able to sell any portion of its self-generation. In short, self-generating customers in the FortisBC service area currently take service on a “net-of-load” basis.⁶ Over the years, issues with the net-of-load construct have been raised, especially due the fact that self-generating customers in the BC Hydro service area do not have such a requirement. There has also been debate as to who should reap the benefits, if any, of FortisBC’s customers’ self-generation.

Most recently the New PPA Decision which directed FortisBC to file this Application, also determined that the net-of-load construct is still required in the FortisBC service area. In that decision the Commission approved the New PPA including section 2.5(a)(ii) (Section 2.5), which restricts FortisBC from selling any BC Hydro Rate Schedule 3808 (RS 3808) electricity to any FortisBC customer when such customer is selling self-generated electricity unless a portion of the customer’s load equal to or greater than the Customer Specific Baseline (CSB) is not sourced with any RS 3808 electricity (Section 2.5 Restrictions).

The New PPA Decision also directed BC Hydro to file an application for approval of CBS guidelines (BC Hydro Section 2.5 Guidelines Application), which would likely alleviate BC Hydro’s requirement for there to be a net-of-load construct in the FortisBC service area.⁷

BC Hydro filed the Section 2.5 Guidelines Application late in 2014; however, for regulatory efficiency the proceeding was suspended while the review of this Application was taking place. In the New PPA Decision, the Commission anticipated that if FortisBC had a Commission approved SGP the Section 2.5 Restrictions could possibly be removed all together, therefore greatly improving regulatory efficiencies. This was one of the Commission’s primary reasons for directing FortisBC to file this Application.

1.2 The Application content

The SGP Application puts forward FortisBC’s high level policy statement (High Level Policy Statement) and, in support of this statement, addresses the specific policy subject areas as identified in Directive 5, which include: arbitrage, 1999 Access Principles, a policy on the GBL Guidelines and the benefits of self-generation (Supporting Policies).

FortisBC explains that the SGP Application meets the requirement to consult and file a resultant application that establishes high level principles for its service territory as directed by Order G-60-14.

⁴ Celgar and the Hydro Nelson are connected at transmission voltage while Tolko is connected to the FBC distribution system.

⁵ Exhibit B-1, p. 3.

⁶ Order G-48-09, Decision dated May 6, 2009, p. 28.

⁷ Order G-60-14, directive 2.

1.3 Regulatory process

In the Application, FortisBC proposes a regulatory process whereby the Commission, without any further process, issues a final order concluding that FortisBC has fulfilled the requirements to: (a) consult with stakeholders, and (b) submit high level principles as required by Order G-60-14 and make the following two determinations:

- (i) Directing FortisBC to file an application for approval of GBL Guidelines (GBL Guidelines Application) with the provision that the GBL Application should incorporate the self-generation policies set out in this Application; and
- (ii) Directing FortisBC to file an application for approval of a tariff supplement that incorporates the self-generation policies for Stepped and Stand-By Rates for Transmission Voltage Customers (TS to RS 37 Application).⁸

FortisBC also states that it believes regulatory efficiency is best served by allowing a BC Hydro application for Contracted GBL Guidelines (BC Hydro Contracted GBL Guidelines Application),⁹ currently before the Commission, to be considered and disposed of prior to FortisBC filing a set of GBL Guidelines.¹⁰ FortisBC believes that the conclusions and determinations made by the Commission in that proceeding would likely inform FortisBC's GBL Guidelines.¹¹

The Panel considered FortisBC's proposed regulatory process, was concerned with there being no further process, and sought input from the interveners. For this reason, by Order G-3-15 dated January 13, 2015, the Commission held a procedural conference on February 5, 2015.

The following parties registered as interveners and attended the procedural conference:

- British Columbia Old Age Pensioners' Organization *et al.* (BCOAPO);
- B.C. Sustainable Energy Association and Sierra Club of British Columbia (BCSEA);
- Commercial Energy Consumers Association of British Columbia (CEC);
- BC Hydro;
- British Columbia Municipal Electrical Utilities (BCMEU);
- Celgar; and
- the Association of Major Power Customers (AMPC).

⁸ Exhibit B-1, Appendix E.

⁹ Pursuant to Order G-19-14, as modified by Order G-106-14, BC Hydro was directed to file an application with the Commission for approval of updated Contracted Generator Baseline Guidelines which was filed on December 12, 2014. BC Hydro Application for Contracted Generator Baseline Guidelines and Reconsideration and Variance of Order G-19-14, Decision dated October 30, 2015.

¹⁰ Exhibit B-1, p. 25.

¹¹ *Ibid.*

The Panel considered the submissions made by FortisBC and the interveners at the procedural conference and concluded, with FortisBC's agreement, that there was merit in having some process around the acceptance of the High Level Policy Statement and Supporting Policies put forward in the Application before FortisBC filed any GBL Guidelines. By Order G-32-15 issued on February 27, 2015, the Panel determined that the review of the Application would proceed by way of the following two-staged approach:

- Stage I – The Panel makes certain findings on the High Level Policy Statement and Supporting Policies to establish building blocks for Stage II.
- Stage II – Filing and review of a GBL Guidelines Application.

Further, the Panel agreed with FortisBC that the BC Hydro Contracted GBL Guidelines Application could inform this proceeding. For this reason, the Panel waited to start its deliberations on this Application until after the final order approving the BC Hydro Contracted GBL Application was issued on December 9, 2015.

1.4 Stage I Decision

Guided by the framework which will be explained in Section 4, this stage I decision (Stage I Decision) is meant to assist FortisBC in preparing the stage II filing (Stage II filing).

To ensure that the Panel had sufficient information in Stage I to consider the High Level Policy Statement and Supporting Policies, the Panel sought submissions¹² and a reply from FortisBC (collectively the Submissions), on a list of nine Panel issues (Panel Issues List)¹³ that was previously the subject of comment by the Applicant and interveners.¹⁴

In its deliberations, the Panel considered the evidence put forward in the Application, the Submissions and certain relevant past Commission orders and decisions and offers FortisBC guidance and recommendations it needs to consider in the Stage II filing. The Panel also, where appropriate, makes determinations with which FortisBC must comply.

As further elaborated on in Section 6.1.1, no guidance or recommendations are provided in the Stage I Decision on the evidence filed in the Application relating to Order G-67-14. In the Panel's view it is premature to make any recommendations or provide guidance on the principles that should be reflected through Stand-by Billing Demand.

The Stage I Decision will complete the review of the SGP Application as filed. The Stage II filing will be established as a new proceeding.

¹² Order G-51-15 dated March, 31, 2015.

¹³ Appendix A of this decision.

¹⁴ Order G-32-15 February 27, 2015.

2.0 RELEVANT PAST ORDERS AND DECISIONS

There are a number of regulatory proceedings that directly or indirectly relate to the SGP Application, some of which are listed and described in Table 1.0 of the Application and others which the parties put forward and addressed in their Submissions. Orders G-38-01 (BC Hydro Obligation to serve Rate Schedule 1821 Customers with Self-Generation Capacity), G-174-15 (BC Hydro Contracted GBL Guidelines Application) and G-60-14 (New PPA Decision) are of critical importance to the Stage I Decision and a summary of those decisions is provided below. Order G-38-01 is further addressed in Sections 6.4. The Panel also addresses a number of other related decisions throughout this Stage I Decision.

2.1 Orders G-38-01 and G-174-15: BC Hydro Obligation to Serve Rate Schedule 1821 Customers and BC Hydro Contracted GBL Guidelines Application

The issue concerning BC Hydro's self-generating customers with idle self-generation was first addressed by the Commission in its final determination on 'BC Hydro Obligation to serve Rate Schedule 1821 Customers with Self-Generation Capacity' Application by Order G-38-01 (G-38-01 Decision). Directive 1 of Order G-38-01 directed 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.

Directive 1 of G-38-01 also introduced a customer baseline [now referred to as a GBL] approach as a way to safeguard current BC Hydro ratepayers from any arbitrage while allowing self-generating customers to realize the benefits from their idle self-generation. The GBL was to be set at a level that would ensure that BC Hydro was not required to supply any increased embedded cost service to an RS 1821 customer selling its self-generation output to market. In the G-38-01 Decision, the Commission directed BC Hydro to "make every effort to agree on a GBL, based either on the historical energy consumption of the customer or the historical output of the generator."

Order G-38-01, as subsequently extended by Order G-17-02, was initially intended as a short term solution to an energy shortage but later was applied to long term energy supply contracts between BC Hydro and its self-generation customers. In 2014, by Order G-19-14, the Commission directed BC Hydro to file the BC Hydro Contracted GBL Guidelines Application.

On October 30, 2015, and December 9, 2015, by Orders G-174-15 and G-194-15 respectively, the Commission approved the BC Hydro Contracted GBL Guidelines Application. The stated purpose of those Guidelines is to outline the framework that BC Hydro uses in setting a Contracted GBL to identify incremental self-generation, based on historical energy consumption, for customers who are considering entering into a prospective Energy Purchase Agreements (EPAs) or Load Displacement Agreements (LDAs) with BC Hydro. The Contracted GBL determines the amount of electricity that a customer must generate for self-supply under current normal operating conditions (generally on the basis of the previous 365 day period) and recognises that electricity in excess of the Contracted GBL is incremental electricity. Under EPAs and LDAs BC Hydro provides financial

payments (incentives) to customers in exchange for generating more energy than they would otherwise (incremental).¹⁵

The BC Hydro Contracted GBL Guidelines were only approved by the Commission for their application to customers with existing self-generation. BC Hydro currently does not have any Commission approved guidelines for customer with new-self generation.¹⁶

2.2 Order G-60-14: New PPA Decision

Order G-60-14, which approved an application by BC Hydro to replace an existing 1993 PPA between BC Hydro and FortisBC under RS 3808 with a new PPA was the genesis for the present SGP Application. Specifically, it was certain restrictions within the Section 2.5 of the New PPA that raised concerns with the Commission.

Specifically, the Section 2.5 Restrictions states:

Electricity taken under this Agreement shall not be sold to any FortisBC customer with self-generation facilities, or used by FortisBC to serve any such customer's load, when such a customer is selling self-generated Electricity unless a portion of the customer's load equal to or greater than the customer-specific baseline is being served by Electricity that is not Electricity taken under this Agreement, where such customer-specific baseline [CSB] is as determined in accordance with Commission approved guidelines and in consultation with the customer.¹⁷

A similar restriction formed part of the 1993 PPA after it was added in response to a Commission hearing in 2009.¹⁸ At that time the Commission was convinced that it was needed to protect BC Hydro ratepayers from the risk of material harm resulting from any arbitrage by FortisBC customers made possible by differences between embedded cost rates and prices available for power sales to third parties. As a result of this restriction FortisBC's self-generating customers wanting to export to a third party could only do so on a net-of-load basis.

In the New PPA Decision, the Commission found that the risk of material harm to BC Hydro's ratepayers was now mitigated through other characteristics of the New PPA, especially in the short term.¹⁹ The Commission, however, was concerned with the Section 2.5 Restrictions because, among other things, they significantly complicate the rate design for transmission voltage customers in the FortisBC service territory. With the inclusion of the Section 2.5 Restrictions, a BC Hydro CSB would be required for a FortisBC customer looking to sell any of its self-generation to either FortisBC or a third party even if a customer were to have a FortisBC approved GBL. The Commission believed that if FortisBC alone was in charge of its rate design unfettered by the Section 2.5 Restrictions, FortisBC's rate design and regulatory proceedings could be simplified.

The Commission's preferred solution was to remove the Section 2.5 Restrictions (including the CSB) immediately but in the end determined that it was premature to do so given the long term nature of the New PPA and

¹⁵ BC Hydro Contracted GBL proceeding, Exhibit B-1, p. 36.

¹⁶ BC Hydro Contracted GBL Decision, p. 30.

¹⁷ Section 2.5(a)(ii) of the New PPA.

¹⁸ BC Hydro Section 2.1 of the 1993 PPA Application.

¹⁹ BC Hydro New PPA Decision, p. 92.

because FortisBC did not have a sufficiently developed and articulated self-generation policy approved by the Commission. The Commission found that the best way to resolve the matter was to direct FortisBC to initiate a consultation process to establish high level self-generation principles. The Commission concluded that it was hopeful that once there was a clearly documented Commission approved FortisBC SGP, it would be reasonable to eventually remove the Section 2.5 Restrictions in pursuit of improved regulatory efficiency.²⁰

The Commission gave FortisBC the discretion and judgment to determine the scope of the consultation process and the resultant application but directed FortisBC to ensure that:

- (i) it determines for existing self-generating customers, how much generation must be used for self-supply, and
- (ii) all FortisBC's customers with idle self-generation capability are able to sell excess self-generated electricity, provided the self-generating customers do not arbitrage between embedded cost utility service and market prices.²¹

The Commission noted that while the first objective identified above is fairly self-explanatory, the second one could require consideration of a variety of issues. These might include:

1. Whether customers with new self-generation should be allowed to use their generation to displace their own consumption; and if so, should there be restrictions on generator type, size and/or location?
2. Stand-by rates for self-generating customers who are allowed to use their generation to offset their load.
3. Self-generating customers' access to the market.
4. Identification of any market barriers to efficient investment in self-generation which should be addressed; i.e. interconnection issues and reduction in administrative complexity.²²

Regardless, the Commission found that FortisBC must establish self-generation policies for current and future customers at distribution and transmission voltage and Directive 5 of Order G-60-14 determined the following:

FortisBC is to initiate a consultation process in its service territory to address or ensure:

- (i) the potential benefits of self-generation [as identified by BCMEU in its Supplemental Submission;²³]
- (ii) the 1999 Access Principles in the context of self-generating customers;
- (iii) if a GBL methodology is proposed, GBL Guidelines for both idle historic self-generation and new self-generation [should be proposed]; and

²⁰ New PPA Decision, pp. 97-99.

²¹ Ibid., p. 103.

²² Ibid., p. 104.

²³ Exhibit C4-5, preamble.

(iv) arbitration is not allowed.²⁴

Directive 5 further directed FortisBC to file a resultant Self-Generation Policy application that establishes high level principles for its service territory. This SGP Application was filed in compliance with Directive 5.

3.0 APPROACH TO THE DECISION

In this Stage I Decision the Panel provides its evaluation of the High Level Policy Statement and Supporting Policies put forward in the Application through the lens of the Framework for Evaluation which is set out in **Section 4**.

The Panel then considered the evidence put forward in the Application, the Submissions received from the parties on the Panel's Issues List, as well as certain relevant past Commission orders and decisions to provide FortisBC with recommendations and guidance that it needs to consider, and directives that it must follow, when preparing the Stage II filing.

With regard to past orders and decisions, this proceeding was not meant to be an opportunity to revisit issues raised in previous Commission decisions but rather to crystalize and articulate these decisions, as well as other issues, as they relate to the development of FortisBC's SGP. The Panel recognizes that many Commission decisions were made in other contexts at different times. Nevertheless, the Panel will endeavor to provide guidance as to the extent that they apply here.

With regard to the Panel Issues List this decision will not address each question individually. A more integrated approach has been taken where the Submissions will be considered in the context of FortisBC's High Level Policy Statement and Supporting Policies.

The Panel's evaluation starts by considering FortisBC's High Level Policy Statement in **Section 5**. This is followed by **Section 6**, which evaluates the Supporting Policies and other positions put forward by FortisBC.

Specifically:

Section 6.1 addresses the net benefits of self-generation and the methodology for measuring and sharing those benefits.

Section 6.2 introduces the concept of off-setting load and exporting under certain conditions.

Section 6.3 addresses the ability of a customer to use self-generation to off-set load.

Section 6.4 evaluates FortisBC's policies and positions put forward on exporting as follows:

Section 6.4.1 addresses FortisBC proposal to allow exporting to third parties subject to certain safeguards and clarifies the understanding of the term export.

²⁴ New PPA Decision, p. 105.

Section 6.4.2 addresses the concept to ‘mitigate the risk to other ratepayers’ as a safeguard when allowing exports and clarifies the use of the term arbitrage.

Section 6.4.3 addresses the use of a GBL construct as a way to mitigate the risk to other ratepayers when a self-generator exports energy. This section also addresses the obligation to serve concept and the 1999 Access Principles as they relate to customers with self-generation.

Section 6.4.4 considers the incremental generation approach, based on historic generation, to set the GBL for customers with idle self-generation and new self-generation and address how this approach would impact self-generating customers currently operating under the net-of-load construct.

Section 6.5 considers the continued role, if any, of the net-of-load policy, under the proposed GBL construct.

Section 7 concludes the Panel’s evaluation of the Application and considers incenting self-generation. The Panel suggests ways that FortisBC might consider incenting self-generation under the right circumstances through certain Demand Side Measures (DSM) such as load displacement agreements. The Panel also considers FortisBC potential role in entering into long term supply agreements with its self-generating customers.

Section 8 provides the Panel’s final determination and summarizes the Stage II filing requirements.

Section 9 addresses the BC Hydro Section 2.5 Guidelines proceeding, which is currently suspended.

4.0 FRAMEWORK FOR EVALUATION OF THE SELF-GENERATION POLICY

In providing its recommendations on the High Level Policy Statement and Supporting Policies put forward in the Application, the Panel is guided by the following four considerations, in order of importance, which set the foundation for the Panel’s framework for evaluation (Framework for Evaluation).

4.1 Removing the Section 2.5 Restrictions from the New PPA

FortisBC’s SGP should satisfy the concerns raised in the New PPA Decision regarding Section 2.5.

Specifically, if FortisBC’s SGP does not result in the eventual removal of the Section 2.5 Restrictions, a BC Hydro CSB would be required for a FortisBC customer looking to sell any of its self-generation to either FortisBC or a third party even if that customer had a FortisBC approved GBL. This would result in the continuation of complex rate design issues and would considerably restrict FortisBC’s flexibility in the future to change its regulations for customers with self-generation.

Pursuant to Order G-174-15 and approved by Order G-195-15, BC Hydro has Commission approved Contracted GBL Guidelines. At first glance, it would seem reasonable that if FortisBC’s GBL Guidelines were similar to

BC Hydro's Commission approved Guidelines then BC Hydro would be in support of removing the Section 2.5 Restrictions. However, FortisBC's GBL Guidelines, would likely differ from those of BC Hydro's for the following reasons:

- 1) BC Hydro's Contracted GBL Guidelines do not apply to a self-generating customer simultaneously purchasing electricity from BC Hydro and selling to a third party (exporting to a third party). Therefore the BC Hydro Contracted GBL Guidelines are not designed to address such a circumstance. Further, no self-generator in the BC Hydro service area has required such treatment. The primary purpose of the BC Hydro Contracted GBL Guidelines is to identify incremental self-generation that BC Hydro will incentivize pursuant to an LDA or procure pursuant to an EPA with BC Hydro. The BC Hydro Contracted GBL identifies the amount of electricity that the customer must generate for self-supply in current normal operating conditions, and only electricity in excess of the GBL is recognized as incremental or new electricity.

On the other hand, FortisBC's proposed GBL construct is meant to set a framework to identify self-generation output that would be available for export to any party.²⁵

- 2) In the BC Hydro Contracted GBL Decision, the Commission found that a GBL used for customers exporting to third parties, such as the one proposed by FortisBC, is analogous to two sides of the same coin; the GBL must be designed to both identify how much generation a customer has available for export and identify the amount of residual plant load that the serving utility has an obligation to serve.²⁶

In the case of BC Hydro, where the customer is only selling to the utility, the GBL does not need to identify the amount of residual plant load that the serving utility has an obligation to serve because the terms of the BC Hydro EPA and/or LDA achieve those objectives.

- 3) The BC Hydro Contracted GBL Guidelines only apply to customers with existing self-generation. The Commission did not approve their use for current customers that do not have existing self-generation or new customers with existing self-generation.

FortisBC proposes that its GBL Guidelines apply to both existing and new customers.²⁷

- 4) BC Hydro's customers have never been required to operate under the net-of-load construct whereas all FortisBC self-generating customers have been constrained by the net-of-load requirement since 2009.²⁸
- 5) BC Hydro is a crown-owned utility, subject to certain government legislation and objectives, whereas FortisBC is an investor-owned utility.

4.2 Investment decisions

FortisBC's SGP should provide information, stability, transparency and consistency to guide customers and prospective customers considering making investments in self-generation in the FortisBC service area.

²⁵ Exhibit B-1, p. 16

²⁶ BC Hydro Contracted GBL Decision, p. 20.

²⁷ Ibid., p. 30.

²⁸ Order G-48-09, p. 28.

4.3 Applicable legislation

FortisBC's SGP needs to take into consideration the relevant legislation including the applicable sections of the *Clean Energy Act (CEA)* and the *2007 BC Energy Plan: A Vision for Clean Energy Leadership Guidance (BC Energy Plan)*, as well as the *Utilities Commission Act (UCA)*.

4.3.1 Clean Energy Act and the 2007 BC Energy Plan

The Panel recognizes that both the CEA, which is an act of the BC provincial legislature setting out specific energy goals, and the BC Energy Plan, are applicable throughout British Columbia, with the exception of certain clauses that apply exclusively to BC Hydro. Any public utility within BC, including FortisBC, falls under the authority of the CEA.

4.3.2 Utilities Commission Act

The Panel will take into consideration section 59(1)(a) of the UCA, which prohibits a utility from having a rate that is unjust, unreasonable, unduly discriminatory or unduly preferential. The SGP affects rates, therefore any rate that flows from it would have to be in compliance with the UCA in order to be approved by the Commission.

4.4 Level playing field within the FortisBC service area

FortisBC's SGP should identify and mitigate market barriers to cost-effective clean self-generation.

This will help ensure that the most cost effective generation in the FortisBC service area is built by helping to establish a level playing field between self-generator on the customer's side of the point of delivery (distributed generation) and transmission connected generation, such as a wind farm. Building the most cost effective generation should benefit ratepayers by eliminating the need for the utility to build new generation of its own, the province as a whole by contributing to clean energy objectives, and the self-generator.

5.0 FORTISBC'S HIGH LEVEL SELF-GENERATION POLICY STATEMENT

In the Application FortisBC puts forward the following High Level Policy Statement:

FortisBC 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.²⁹

²⁹ Exhibit B-1, p. 11.

FortisBC elaborates by stating that it will determine the benefits that the self-generator provides to FortisBC customers as a whole and on a case-by-case basis. The rationale provided by FortisBC in support of its position is that the opportunities for recognizing the net benefits are anticipated to be infrequent due to the small number and unique nature of potential self-generation customers, and of the need to consider each specific circumstance. Therefore bringing each case, with all the relevant supporting documents, to the Commission for approval on a case-by-case basis is a reasonable approach.³⁰

FortisBC further states that it recognizes there may be both benefits and/or costs attributable to the presence of self-generation and that it may be appropriate to recognize these benefits and costs in the service provided to the self-generator.³¹ Specifically, FortisBC submits: “In those situations where the self-generation project will provide a net benefit to FBC customers as a whole, including the self-generating customer in terms of reduced infrastructure costs, lower power purchase expenses or other benefits that will have a positive rate impact over the life of the project, the Company may recognize the net benefit, such as through a Commission approved adjustment to the contract demand utilized in calculating the charges to the self-generator [Stand-by Billing Demand].”³²

5.1 Proposal for a case-by-case policy

For the most part the interveners agreed with FortisBC that it is appropriated to evaluate each proposal on a case-by-case basis as the projects are expected to be infrequent due to the small number of self-generators and unique circumstances given the nature of potential self-generator.

The Panel agrees that each project has to be evaluated on a case-by-case basis, which is also consistent with the design of the Commission approved Stand-by Rate’s Stand-by Billing Demand (SBBD). SBBD is set individually based on a set of what are to be Commission approved principles. The Panel has not moved away from this approach; however, the Panel is concerned that the limited nature and extent of the High Level Policy Statement is not sufficient or transparent enough for FortisBC to have a context within which to appropriately evaluate self-generation projects on a case by case basis.

The Panel agrees that a decision by a customer to install self-generation should be made by the customer based on the merits of the project; however, in order for that customer to be able to evaluate those merits it also needs to understand the context under which FortisBC makes its case by case evaluation.

FortisBC suggests that the Tariff Supplement to RS 37, which is addressed further in Section 6.1.1, may instead be a stand-alone document that could be used by a self-generation customer seeking a determination on how the potential net benefits would be recognized.³³ The Panel’s concern with this approach is that the Stand-by Rate only applies to self-generation used to off-set load and does not apply to self-generation used for export. The Panel agrees there should be a stand-alone policy but it has to be more comprehensive than suggested by FortisBC and more fulsome and organized than put forward in the Application.

³⁰ Ibid., p. 2.

³¹ Ibid., p. 30.

³² Ibid., p. 11.

³³ Exhibit B-1, p. 37.

FortisBC also suggests that it will incorporate the self-generation policies regarding the rights and obligations of both self-generating customers and FortisBC in the GBL Guidelines filing.³⁴ However, it is not clear if those policies would be incorporated into the GBL Guidelines themselves or simply stated as part of the filing.

As noted earlier, one of the main drivers of this Application is the eventual removal of the Section 2.5 Restrictions. The Panel is concerned that the High Level Policy Statement as presently put forward in the Application will likely not achieve this objective.

For clarity, the Panel does not consider the FortisBC GBL Guidelines, that are to be filed in Stage II, to constitute a complete SGP. **Therefore, FortisBC is directed to include a standalone comprehensive FortisBC SGP as part of the Stage II filing in addition to the GBL Guidelines Application.**

The SGP filed in Stage II needs to apply to both current and future customers and should also clearly address how long the policy will be in place and how often it will be reviewed or updated.

This more comprehensive SGP will set the context and establish the level playing field that FortisBC will apply when evaluating a self-generator project on a case-by-case basis. The Panel finds it necessary to have a transparent, comprehensive SGP in order to:

- Ensure it is applied in a fair manner and does not result in any unjust, unreasonable, unduly discriminatory or unduly preferential treatment;
- Provides information, stability and consistency to guide customers considering making investments in self-generation; and
- Satisfy the concerns raised regarding the Section 2.5 of the New PPA.

The remainder of this decision will provide guidance to FortisBC in developing that comprehensive SGP and the GBL Guidelines that will accompany it in the Stage II filing.

5.2 Encouraging or discouraging self-generation

In the High Level Policy Statement FortisBC proposes that it will neither encourage nor discourage self-generation. FortisBC further states that it is not appropriate for a customer to receive a monetary incentive to undertake a project that does not lead to a net reduction to FortisBC's revenue requirement.³⁵

In response to this position, BC Hydro notes that in its service area, its approach is to "...encourage incremental self-generation projects through financial payments and incentives under EPAs and LDAs assuming it is cost-effective for BC Hydro to do so relative to other resource options."³⁶ BC Hydro states that it is unfortunate FortisBC takes the position that it is not FortisBC's role to encourage self-generation in its service area. FortisBC might consider encouraging incremental self-generation projects through financial payments and incentives

³⁴ Ibid., p. 2.

³⁵ Exhibit B-1, p. 35.

³⁶ Exhibit C2-3, p. 13.

under EPAs and LDAs with its self-generating customers, assuming it is cost-effective for FortisBC to do so relative to the provincial Long Run Marginal Cost (LRMC) of new firm energy.³⁷

In Reply, FortisBC observes that “it is possible that some of the divergence in opinions on whether or not FortisBC should ‘incent’ self-generation stems from differences in participants’ conceptual understanding of what constitutes an incentive. FortisBC does not consider the recognition of net benefits of self-generation to be an incentive, nor does it consider the case where FortisBC would purchase the output of a self-generator’s plant where FortisBC considered that to be a cost effective resource to be an incentive.”³⁸

FortisBC has noted that it would consider purchasing energy from a self-generator under the right circumstance. In addition, FortisBC states that it may be appropriate to recognize the net benefits if there are any.³⁹ The BCMEU agrees with FortisBC’s position whereby if a self-generation project has a net benefit to FortisBC customers as a whole, it would be appropriate for FortisBC to recognize the net benefit.⁴⁰

In the Panel’s view, there appears to be some confusion as to what it means to remove a barrier and what constitutes an incentive. The following example may help to clarify the Panel’s understanding of the difference. A market barrier that could exist for a customer with self-generation is difficulty accessing the market. An example of removing a barrier would be for the utility to purchase the energy from the self-generator at market prices. On the other hand incenting self-generation might be offering the self-generator preferential terms, such as a higher price, than it would offer to an arms-length party.

Whether a utility should do nothing, remove barriers or incent self-generation will depend on the utility’s particular circumstances. In the Panel’s view removing barriers to self-generation can help facilitate a level playing field between customers with self-generation and transmission connected generation. This can be of benefit to the entire province including FortisBC and its ratepayers if it is the most cost-effective generation. In the Panel’s view FortisBC’s SGP should mitigate barriers to cost-effective self-generation but going beyond removing barriers and incenting self-generation was not considered by the Panel in its evaluation of the policies put forward in the Application. However, the Panel will briefly address incenting self-generation as a separate matter in Section 7.

Nevertheless in order to provide information so as to promote stability, transparency, and consistency to guide FortisBC’s customers considering making investments in self-generation **the SGP filed in Stage II needs to establish and document the circumstances under which FortisBC will do nothing, remove barriers or incent self-generation.** This will help to ensure that no customer is treated in an unjust, unreasonable, unduly discriminatory or unduly preferential manner.

³⁷ Ibid., p. 14.

³⁸ Exhibit B-7, p. 33.

³⁹ Ibid., pp. 7–8.

⁴⁰ Exhibit C5-3, p. 3.

5.3 *Clean Energy Act and the 2007 BC Energy Plan*

The High Level Policy Statement neither directly nor indirectly addresses the CEA or the BC Energy Plan. However, in its Submission FortisBC indicates it is supportive of the policies that the government has advanced, such as the BC Energy Plan and the Clean Energy Act, when such policies are consistent with the interests of its ratepayers; however, in the absence of a specific statutory requirement or Commission order, FortisBC does not consider itself to have the mandate to further those policies where there is potential harm to any group of ratepayers.⁴¹

BCOAPO generally agrees with FortisBC's comments regarding the application of the [CEA].⁴²

In BCSEA's view, the CEA only applies on a high level regarding FortisBC policy on the financial aspects of self-generation by FortisBC customers.⁴³

CEC notes that the direction to "consider" the BC Government's energy policy does not necessarily mean that it must be built into FortisBC's Self-Generation Policy.⁴⁴

Celgar submits all but three of the objectives contained in the CEA are relevant to the determination of the self-generation policy. Celgar claims that FortisBC's claim of 'harm to ratepayer' with regard to not applying the CEA is circular.⁴⁵

The Panel has already indicated recognition that the CEA and the BC Energy Plan apply to FortisBC, other than where they apply to BC Hydro only, and therefore FortisBC's SGP needs to take into consideration the CEA and the BC Energy Plan. The Panel notes that FortisBC has not differentiated between clean self-generation and other types of self-generation. In the Panel's view FortisBC should only consider removing barriers for clean cost effective self-generation projects. **Therefore, any policies to remove barriers put forward by FortisBC in the comprehensive SGP in the Stage II filing should apply to clean energy projects only.**

Now that the Panel has considered FortisBC's High Level Policy Statement it will address the specific Supporting Policies in response to Directive 5 and other positions put forward by FortisBC in the Application.

6.0 FORTISBC'S SUPPORTING POLICIES AND POSITION ON SELF-GENERATION

6.1 Net benefits of self-generation

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

⁴¹ Exhibit B-6, pp. 17–18, para. 29.

⁴² Exhibit C1-3, p. 6.

⁴³ Exhibit C4-3, p. 4.

⁴⁴ Exhibit B-1, p. 30.

⁴⁵ Exhibit C7-3, pp. 12–15.

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.⁴⁶

In the New PPA proceeding, BCMEU stated 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. BCMEU pointed out that the current economic incentive [in the FortisBC service area] to invest in new generation on a net of load basis is very low. The best incentive currently available is the ability to use self-generation to off-set load thereby avoiding power purchases from FortisBC at embedded cost rates.⁴⁷

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. FortisBC puts forward the following policy in the Application:

*Where positive net-benefits to FortisBC customers as a whole result from the instillation of customer owned self-generation, those benefits will be shared between the self-generating customer providing the benefits and all the customers.*⁴⁸

In the Application FortisBC also addresses the net benefits of self-generation that should be reflected in the Stand-by Rate schedules SBBB pursuant to Orders G-67-14 and G-46-15.

6.1.1 Compliance with Orders G-67-14 and G-46-15

The Stand-by Rate filed for approval in the FortisBC Application for Stepped and Stand-by Rates for Transmission [Voltage] customers is a rate for supplying electric power and energy when the customer's self-generation facilities are not in operation or are operating at less than full rated capability.⁴⁹

In the Stand-by Rate Decision – Stage I, released concurrently with Order G-67-14 the Commission established a means to set the Stand-by Billing Demand (SBBB), a demand component of the rate to recover wires charges, somewhere between zero and 100 percent of the customers Stand-by Demand Limit. The principles to be considered in setting future customer's SBBB are to reflect the costs and benefits that distributed generation provides to the Province.⁵⁰

In the Stand-by Rate Decision - Stage I, the Commission found that the development of principles that SBBB are to reflect would best be determined through FortisBC's SGP Application.

However, after the Commission issued Stand-by Rate Decision - Stage I (Order G-67-14), it issued Order G-46-15, dated March 24, 2015, in the matter of the Stand-by Rate Decision- Stage II which stated:

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

⁴⁶ BC Hydro New PPA Decision, p. 101.

⁴⁷ BC Hydro New PPA proceeding, Exhibit C4-5, preamble.

⁴⁸ Exhibit B-1, p. 37.

⁴⁹ Ibid., p. 6.

⁵⁰ Decision to Order G-67-14, p. 56.

Demand, no later than ninety 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 (TS to RS 37 Application).⁵¹

The TS to RS 37 Application is meant to set criteria for determining the net benefits of self-generation for a particular customer. In the Panel's view, the net benefits reflected in the SBBB should be informed by the broader comprehensive FortisBC SGP; however, until the Commission approves such a policy this cannot be realized. This was likely the reason Order G-46-15 required the TS to RS 37 Application to be filed after a determination was made on the SGP Application.

In additions, SBBB was established and approved under a net-of-load construct. In the SGP Application FortisBC is proposing a GBL construct. Furthermore, the Stand-by Rate only applies to customers who are using self-generation to off-set their load, and is not available to customers in the fulfillment of any power sales obligation.

In the Panel's view it is premature as part the Stage I Decision to make any recommendations or provide guidance on the net benefits that should be reflected in the SBBB until after FortisBC has a Commission approved comprehensive SGP. As such, the Panel will only address the net benefits of self-generation as they relate to the comprehensive SGP to be filed in Stage II.

6.1.2 Potential benefits

FortisBC identifies the potential benefits of self-generation to include the following:

- 1) freeing up of utility power for export if the self-generating customer's load is reduced;
- 2) electricity self-sufficiency as it relates to the *Clean Energy Act*. However, such considerations should not be pursued where the impact of doing so increases customer rates;
- 3) reduced greenhouse gas emissions;
- 4) a potential reduction in the need for utility-provided network capacity;
- 5) reduction of transmission losses. However, whether or not this benefit is realized is dependent upon the location of the other generating resources in the area;
- 6) reduction of environmental impacts;
- 7) improvement in reliability. However this depends on where the resource is located;
- 8) avoidance or deferral of investments. Again, in FBC's case, given the stand-by rate structure, this is unlikely;
- 9) relief of transmission congestion; and
- 10) replacement or complementing of traditional power generation.⁵²

⁵¹ Decision to Order G-46-15, p. 24.

⁵² Exhibit B-1, p. 32; Exhibit B-6, pp. 24–25.

Tolko elaborates on the list offered by FortisBC by adding the following: reduced transmission infrastructure from distributed generation, improved self-sufficiency of the FortisBC system, voltage support, and reduced system losses if the self-generation is located next to load.⁵³

FortisBC concludes that from a financial perspective, the most likely potential benefits from the local installation of self-generation are due to the deferral or avoidance of a required capital addition, such as a substation, and a reduction in power purchases due to a reduction in system losses that could result.⁵⁴

6.1.3 Giving a value to a cost effective energy alternative

The Panel agrees that whether or not FortisBC removes any barriers to self-generation will depend on whether or not there are any net benefits. The Panel also agrees with FortisBC that the most likely potential benefits from the local installation of self-generation are due to the deferral or avoidance of a required capital addition and a reduction in power purchases.

However, more is required than just identifying the net benefits; some methodology has to be agreed to as to how the net benefits will be measured.

With regard to measuring those benefits FortisBC puts forward the following as its position:

As a utility with generation insufficient to meet the aggregate load of its customers, load reduction by a single customer primarily provides an opportunity to reduce power purchases. Whether this provides an economic benefit to FBC customers depends on whether the purchase price is greater than or lower than the revenue generated from the customer rates.⁵⁵ [emphasis added]

BC Hydro does not measure cost-effectiveness (economic net-benefit) by comparing the purchase price of self-generation to the revenue generated from that customer's rates. Rather, BC Hydro states that its objective is to increase generation resources on the system, through self-generation where cost-effective.⁵⁶ BC Hydro further submits that it assesses cost-effectiveness for its DSM, including load displacement, against the LRM of acquiring electricity generated from clean or renewable resources in BC.⁵⁷ In other words, BC Hydro compares the purchase price of self-generation to the LRM and if the purchase price of self-generation is lower than the LRM of clean energy resources in BC, then it is considered to be cost-effective.

Assessing cost-effectiveness against the 'LRM of new clean energy resources' is also consistent with the Demand-Side Measures Regulation,⁵⁸ which requires the economic benefits of DSM plans to be calculated based on the LRM from clean or renewable resources.⁵⁹ Further, one of the DSM tests is the Rate Impact Measure

⁵³ Exhibit B-1, Appendix D, Tolko, p. 1.

⁵⁴ Ibid., p. 33.

⁵⁵ Exhibit B-1, p. 28.

⁵⁶ Exhibit C2-3, p. 3.

⁵⁷ Ibid., p. 13.

⁵⁸ BC Reg. 326/2008, modified by Ministerial Order M233 dated June 4, 2014.

⁵⁹ Exhibit C2-3, p. 13.

(RIM) test, which determines if the DSM measure reduces overall rates for FortisBC customers, similar to the test proposed by FortisBC to determine if self-generation is cost-effective. However, the Panel notes that the DSM regulations do not allow the Commission to reject a DSM measure solely because it does not reduce rates for all FortisBC customers (i.e. does not pass the RIM test).⁶⁰

There appears to be general agreement among the parties that self-generation projects should be considered in the context of whether they are a cost-effective energy alternative (resource) for the sourcing of incremental energy. However, FortisBC's proposed shorter term revenue requirements/rates impact⁶¹ method and the longer term LRMC method used by BC Hydro and the DSM Regulation may well result in different conclusions as to the cost effectiveness of that resource.

The Panel finds itself in agreement with much of what FortisBC proposes concerning identifying the net benefits. However, the Panel is concerned with the timing associated with the measurement of those net benefits. Specifically, while the Panel recognizes, as FortisBC points out, that short term benefits are highly desirable and an immediate benefit to all parties, the Panel observes that a solely shorter term analysis may not be in the best interests of either FortisBC or its customers. For example, a measure of the reduction in the revenue requirements (and the resulting impact on customer's rates) due to reduced short term market power purchases does not address the many long-term benefits to self-generation identified in the potential benefits list offered by FortisBC.

The Panel is further concerned with FortisBC's shorter term perspective given that FortisBC has stated that its generation is insufficient to meet its aggregate load. Specifically, FortisBC is in a capacity surplus situation, but has an energy shortage. The energy shortage is 4.9 GWh in 2015 and 6.4 GWh in 2016, and grows to an 82.2 GWh energy shortage by 2024.⁶² It may well be that the most cost effective generation to meet this shortage is self-generation, which could be a benefit, in the long term, to all ratepayers.

In the Panel's view consideration of the long term benefits of self-generation should be a key consideration for measuring the benefits of self-generation given the long term nature of a self-generation investment and the long term needs of FortisBC. **Therefore, the SGP filed in Stage II needs to state FortisBC's policy on how the net benefits of self-generation are measured and 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) FortisBC'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).**

6.2 Introduction to off-setting load and exporting

In the Decision to Order G-60-14, the Commission contemplated that the FortisBC SGP would address both off-setting load and exporting. Specifically, the Panel required FortisBC to address whether new self-generators

⁶⁰ FortisBC Inc. Application for Approval of Demand Side Management Expenditures for 2015 and 2016 Decision, p. 5.

⁶¹ "As rates in general flow from the Company's revenue requirement, which is funded through customer charges, FBC proposes that the appropriate means to adjust a customer's charges should also flow from any change to FBC's revenue requirement that the self-generation net benefit creates" (Exhibit B-1, p. 33).

⁶² FBC DSM Application proceeding, Exhibit B-5, BCUC IR 1.4.1.

should be allowed to use their generation to displace their own consumption.⁶³ The Panel also required the FortisBC SGP to allow customers with idle self-generation capability to be able to sell excess self-generated electricity provided the self-generating customers do not arbitrage between embedded cost utility service and market prices.⁶⁴

The Panel notes that the net benefits of self-generation are different when a customer is exporting rather than using self-generation to displace their load. FortisBC's SGP has not made a clear distinction between policies that address customers using self-generation to off-set load and customers wishing to use their self-generation for export. As such, **FortisBC's SGP put forward in the Stage II filing needs to distinguish between the policies related to customers who only wish to off-set load and the policies related to customers who wish to export.**

The remainder of this Stage I Decision will also address each of these circumstances separately.

6.3 Off-setting load

The concept of load displacement in the FortisBC and BC Hydro service area, or as it has been referred to, off-setting load, has not been raised as a concern in any proceeding before the Commission regarding self-generation. FortisBC currently requires its self-generating customers to displace their full load before they can export any self-generated electricity (net-of-load). No intervenor raised a concern with a customer's ability to off-set load when not exporting any self-generation.

At a high level, the Panel notes two significant risks with a customer wishing to use its self-generation to off-set load. First is the risk of stranded assets, and second is the risk of a customer switching between using self-generation to off-set load and purchasing energy from the utility at embedded cost rates based on price.

In the FortisBC service area the first risk, the stranded assets risk, is largely addressed by the recently approved Stand-by Rate, which allows the recovery of fixed costs through the SBBB. However, service under the Stand-by Rate is optional so there still remains some potential risk of stranded assets if the customer elects not to take stand-by service. The second risk, of a customer switching back and forth, is somewhat mitigated through Contract Demand.

FortisBC states that whether there is actually a benefit from a customer off-setting their load through self-generation at any given time is dependent on the alternatives available to FortisBC for its use of power and the relative price of supply.⁶⁵

FortisBC did not include a separate policy statement regarding self-generating customers who wish to off-set load but do not wish to export. The Panel is of the view that disclosing whether or not off-setting is permissible, even when not exporting, is an important component of a SGP. Clarification of this point will help ensure all customers are treated in a fair manner and will help ensure there is no unjust, unreasonable, unduly discriminatory or unduly preferential treatment. Further, it will provide key information to assist customers considering making investments in self-generation.

⁶³ Decision to Order G-60-14, p. 103.

⁶⁴ Ibid.

⁶⁵ Exhibit B-1, p. 28.

Therefore, the SGP filed in Stage II needs to include a policy statement for: (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 Stage II filing should also identify any material risks or barriers to such activities and include policies on how those risks can be mitigated and barriers removed. In addition, FortisBC needs to address any restrictions on generator type taking into consideration the applicable sections of the CEA and the BC Energy Plan. The concept of potentially going a step further than removing barriers and incenting load displacement is addressed separately in Section 7.1.

6.4 Exporting

FortisBC states that at a high level it expects to address the issue of exporting and arbitrage through the GBL Guidelines Application, which likely will adhere to the following policies (Three Export Policies):

1. FortisBC customers with self-generation should have the ability to sell some of the power they generate [identified as incremental] to third parties subject to the principles below.
2. Self-generating customers cannot arbitrage between FortisBC's embedded cost utility service rates and prices available for power sales to third parties, meaning that FortisBC will not be required to supply any increased embedded cost of service to a customer selling its self-generation output to market.
3. The mitigation of arbitrage will be accomplished through the use of a GBL which denotes that portion of a self-generating customer's own load which it had served in the past and must continue to serve.⁶⁶

FortisBC states that its principles are based on and in compliance with Order G-38-01 and in compliance with that as required by Order G-60-14. Order G-38-01 was a direction to BC Hydro while Order G-48-09 (BC Hydro Section 2.1 of the 1993 PPA Decision) extended the principles to FortisBC.⁶⁷

FortisBC states that CEC believes it may be appropriate for FortisBC to have a different GBL Policy and methodology than that of BC Hydro.⁶⁸

BCMEU notes that "past Commission decisions should be used for context of the matter but it is not necessary or desirable to try and develop a self-generation policy that is entirely consistent with all past decisions. This is an opportunity for a 'clean slate' decision that will become the guiding document on matters pertaining [to] self-generation."⁶⁹

Celgar submits that "Order G-38-01 has run its course. Times have changed and policies have evolved. Maintaining the *status quo* (from whatever starting point is selected) for its own sake cannot reasonably be a basis for ongoing policy development. FortisBC's proposed self-generation policy is based on the concept of 'incremental self-generation' from the date of Order G-38-01 - a point in time that is 14 years past."⁷⁰

⁶⁶ Ibid., p. 27.

⁶⁷ Exhibit B-7, pp. 6–7.

⁶⁸ Exhibit B-1, p. 24.

⁶⁹ Exhibit C5-2, p. 1.

⁷⁰ Exhibit C7-2, para. 65.

(i) Circumstance impacting Order G-38-01

The Panel notes that the proceeding that led to Order G-38-01, was established to review issues pertaining to the obligation to serve those industrial customers with self-generation capability that have indicated a desire to sell the power they generate at market prices and take increased load requirements under Rate Schedule 1821.

In the BC Hydro Section 2.1 of the 1993 PPA Decision (Order G-48-09) the Commission summarized the issue considered by the Commission in Order G-38-01 as “whether or not a self-generator who was a BC Hydro customer ought to be allowed to purchase power from BC Hydro to service their respective ‘domestic’ load or base load at embedded cost rates, while at the same time selling their self-generated power into the market at whatever negotiated or spot price would accrue to the self-generator as profit. The difference between the embedded cost price and the negotiated or spot price would accrue to the self-generator as profit [arbitrage].”⁷¹

In 2001, the time of the Order G-38-10 Decision, high natural gas prices [fuel source for generators] had idled some of the self-generation capacity as it was not economical to use it to off-set load as compared to BC Hydro’s embedded cost rates; however, this generation would be profitable at market prices for electricity available outside of British Columbia.⁷²

Order G-38-01 stated that the Commission must act to meet the complimentary objectives to:

- 1) Create conditions which allow the utility to safeguard its own supply to British Columbians at lowest cost;
- 2) Assist British Columbia industries with idle self-generation to capitalize on current market opportunities; and
- 3) Help mitigate the potential energy shortage in the US [and assist BC Hydro in replenishing its reservoirs].⁷³

BC Hydro accepted that “the sale of truly ‘idle’ generation into the market may not harm other ratepayers, as long as the increased take of RS 1821 electricity were not above the normal historical levels, to produce current ‘idle’ capacity.”⁷⁴ By Directive 1 of Order G-38-01 the Commission ordered the following to meet those objectives:

The Commission directs B.C. Hydro to allow Rate Schedule 1821 customers with idle self-generation capability to sell excess self-generated electricity, provided the self-generating customers do not arbitrage between embedded cost utility service and market prices. This means that B.C. Hydro is not required to supply any increased embedded cost of service to a RS 1821 customer selling its self-generation output to market. The Commission recognizes that considerable debate may ensue over whether a self-generator has met the principle [no arbitrage], but the Commission expects B.C. Hydro to make every effort to agree on a customer baseline [GBL], based either on the historical energy consumption of the customer or the historical output of the generator.

⁷¹ BC Hydro Application to Amend Section 2.1 of Rate Schedule 3808 Power Purchase Agreement, Order G-48-09, Decision dated May 6, 2009p. 10.

⁷² Commission Staff Report, p. 1, to Order G-38-01.

⁷³ Order G-38-01, preamble paragraph F, Staff Report p. 2.

⁷⁴ Commission Staff Report, p. 1, to Order G-38-01.

Order G-38-01 Directive 3 states: “The sales contracts are to be negotiated by the eligible self-generator and B.C. Hydro/Powerex or an independent marketer...”

The requirement for generator baselines, or GBLs, for BC Hydro’s self-generating customers which sought to sell into the export market was confirmed. Rather than define a way to calculate BC Hydro’s obligation to serve, the GBL (which is meant to safeguard against arbitrage) defined the level a customer must self-supply based on historical energy consumption which has been described as ‘incremental’. The notion of ‘arbitrage’ as used in relation to GBLs was the preservation of the “status quo”, such that BC Hydro’s obligation to serve was limited to the load served at a particular time, and self-generating customers were required to continue to serve that portion of their own load which they had served in the past.⁷⁵

The Commission did not allow the self-generator to sell all of its self-generation and have its full load served by BC Hydro, rather Order G-38-01 resulted in a sharing of benefits. The Commission stated that the resulting arrangements between Howe Sound, Powerex and BC Hydro can be understood as the sharing of proceeds attributable to Howe Sound (HSPP) operating otherwise idle self-generation freeing up BC Hydro resources for export by Powerex.

(ii) Order G-38-01 as it applies to BC Hydro today

To date no BC Hydro self-generating customer has exported energy outside of the province or to a third party. Rather BC Hydro addressed the complimentary objectives set out by the Commission in Order G-38-01, enabling industrial customers to capitalize on current market opportunities by exporting their idle generation to BC Hydro, and safeguarded BC Hydro’s own supply through a GBL based on historical energy consumption.

Today, BC Hydro’s Commission approved Contracted GBL Guidelines are used to establish GBLs for BC Hydro EPAs and LDAs. The BC Hydro Contracted GBL Guidelines share the underlying principles espoused in Order G-38-01 that there should not be arbitrage between embedded cost utility service and market prices. However, BC Hydro’s use of Contracted GBLs is quite different from the use of baselines contemplated in Order G-38-01⁷⁶ and are not used to define BC Hydro’s obligation to serve.⁷⁷

BC Hydro states it is concerned that the Commission and others are under a mistaken assumption that BC Hydro self-generating customers are buying embedded cost electricity from BC Hydro and simultaneously selling electricity in export markets.⁷⁸

BC Hydro states that the Contracted GBL does not enable electricity sales by a self-generator to export markets. This is an important distinction because under BC Hydro’s approach the incremental generation capability remains usable within the province to serve load. When power is exported out of the province, it is not available to serve load in the province and a utility capacity resource is withdrawn from the load-resource balance

⁷⁵ New PPA Decision, Appendix C, p. 2 of 11.

⁷⁶ Exhibit C2-3, p. 9.

⁷⁷ BC Hydro Contracted GBL proceeding, Exhibit B-1, pp. 13–15.

⁷⁸ Exhibit C2-3, p. 10.

precisely when the resource is most valuable. The transfer of the export opportunity using utility resources from the utility to the self-generator imposes an opportunity cost to ratepayers.⁷⁹

In considering the Three Export Policies put forward by FortisBC (as noted in Section 6.4) the Panel will, in addition to being guided by the Framework for Evaluation, address its interpretation of Order G-38-01 as it applies to these policies.

6.4.1 Ability to export self-generation to a third party

FortisBC puts forward its SPG position on exporting as follows:

*FortisBC's customers with self-generation should have the ability to sell some of the power they generate to third parties [subject to certain safeguard].*⁸⁰

FortisBC states that is not “encouraging” exports, nor is it mandating whether a self-generating customer uses its self-generation for self-supply, sales to FortisBC, or export. Its proposed policy would accommodate the export situation provided for in Order G-38-01 that has been the object of a direct request by one of its customers, and the focus of several regulatory processes preceding the SGP Application.⁸¹

BC Hydro submits that it is very concerned with the “export of power to a third party” (other than to the utility) and submits that “the FortisBC self-generation policy has been focused on developing policies, principles and rates to enable self-generators in the FortisBC service area to simultaneously purchase electricity from FortisBC (at embedded cost rates) and sell electricity to third parties in export markets.”⁸²

BC Hydro further submits that “it appears the proposed self-generation policy for the FortisBC service area would involve FortisBC offering services that allow self-generating customers to elect, on a short term opportunistic basis, whether any self-generation in excess of a Commission approved generator baseline (‘GBL’) will be deemed to serve the customer’s load or deemed to be exported, and FortisBC would cause the export to occur via the provisions of utility generated capacity.”⁸³

Celgar states that “the sale of self-generation output in response to spot market prices should be prohibited”⁸⁴ and submits that it does not intend, and has never intended (for its below-load energy), to participate in the hour-by-hour markets, as do utilities.⁸⁵

The Commission, in the New PPA Decision, stated it believes the capacity charges in the underlying rates would be a disincentive for self-generating customers to participate in hour-by-hour markets for its below-load energy

⁷⁹ Ibid. pp. 9–10.

⁸⁰ Exhibit B-1, p. 27.

⁸¹ Exhibit B-7, p. 7, para. 20.

⁸² Exhibit C2-3, p. 27.

⁸³ Ibid., p. 2.

⁸⁴ Exhibit C7-2, para. 55.

⁸⁵ BC Hydro New PPA Decision; Exhibit C5-10, para. 58.

and as a result they most likely would not be participating in these types of transactions.⁸⁶ Celgar also recognized this mitigating control in its submission.⁸⁷

FortisBC states that BC Hydro's presumption that FortisBC proposes to offer services that allow self-generating customers to elect, on a short-term opportunistic basis, whether any self-generation in excess of a Commission GBL will be deemed to serve the customer's load or deemed to be exported is not the case.⁸⁸ FortisBC further submits that if it ever transpired that a self-generating customer of FortisBC sought to engage in "short term opportunistic" behaviour, FortisBC anticipates that the customer would be prevented from doing so through specific provisions in the GBL Guidelines. Indeed, more generally, the concept of a GBL is intended to provide the predictability that might otherwise be lacking; allowing short-term manipulation in this regard is inconsistent with that objective.⁸⁹

Consistent with the Commission's determination in the BC Hydro Contracted GBL Guidelines Application⁹⁰, the Panel does not agree with BC Hydro's distinction between exporting to a third party and exporting to the utility. 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. The end-source of the disposition of that energy seems irrelevant. Further, Order G-38-01 did not differentiate between selling power to BC Hydro/Powerex and a third party.⁹¹

Order G-38-01 allows exporting to third parties (subject to certain safeguards) outside the province in order to allow British Columbia industries with idle self-generation to capitalize on current market opportunities. BC Hydro's self-generating customers are able to capitalize on long term market opportunities, not by exporting to a third party but, through EPAs and LDAs with BC Hydro. Simply because FortisBC may not have the same circumstances to allow them to purchase its customers' generation should not preclude the self-generator from being able to export to a third party. FortisBC's SGP on exporting should not be limited by whom the export is going to; rather, FortisBC's safeguards need to be tailored to address both exporting to a third party and to the utility.

For these reasons, the Panel supports a policy that allows self-generation customers to export incremental self-generation to a third party subject to certain safeguards. However, the Panel does not support a policy that would allow a self-generating customer to elect, on a short term opportunistic basis, whether any incremental self-generation will be deemed to serve the customer's load or deemed to be exported. This could result in true arbitrage, which the Panel will address in more detail later. Furthermore, allowing a customer to elect how it will use its self-generation energy on a short-term basis would most likely not meet the objective of removing the Section 2.5 Restrictions.

⁸⁶ BC Hydro New PPA Decision, p. 3

⁸⁷ Exhibit C7-2, para. 55.

⁸⁸ Exhibit B-7, pp. 2–3.

⁸⁹ Ibid., p. 4.

⁹⁰ BC Hydro Contracted GBL Guidelines Decision, pp. 17–18.

⁹¹ Order G-38-01, Directive 3.

Therefore, the SGP filed in Stage II needs to address both exporting to a third party, and exporting to FortisBC (the concept of exporting to FortisBC is further addressed in Section 7.2). The SGP filed in Stage II also needs to identify any tariffs, agreements, rate schedules, interconnection issues, transmission access issues and any business practices necessary to facilitate such transactions.

6.4.2 Safeguards – mitigate the risk to other ratepayers

The Panel has indicated it supports a policy that would allow for exporting to both the utility and to third parties and also agrees that certain safeguards need to be in place. Order G-60-14 directed FortisBC to ensure, as a safeguard, that its SGP did not allow for arbitrage, consistent with Order G-38-01.

6.4.2.1 Arbitrage

Order G-38-01 allowed customers with idle self-generation capability to sell excess self-generated electricity, provided the self-generating customers did not arbitrage between embedded cost utility service and market prices. Order G-38-01 established a customer baseline concept (GBL) to safeguards against this type of arbitrage. The customer baseline defined the amount of electricity a customer must self-supply on the basis of normal historic levels of self-supply. Any electricity in excess of the customer baseline was considered incremental. This resulted in the customer being required to continue to serve that portion of their own load which they had served in the past (status quo) before being permitted to export any incremental electricity.

Nelson Hydro, with whom FortisBC consulted in preparing the Application, defines arbitrage as simply the means of buying and selling the same power.⁹² BC Hydro notes that while other definitions are available, the FortisBC Application provides the following definition of arbitrage from Black’s Law Dictionary: “An investment strategy involving the simultaneous purchase and sale of two assets in order to capitalize on small price or rate discrepancies. The intent of the strategy is to generate a profit with a minimum amount of risk.”⁹³

BCSEA submits that “the term ‘arbitrage’ is too fraught to be useful in defining FBC’s policy regarding customers self-generation for export.”⁹⁴

BC Hydro submits that the issues are whether the activities will be (i) beneficial to ratepayers, (ii) detrimental to ratepayers, or (iii) neutral (no harm) to ratepayers; and if there is a risk of harm to ratepayers (including BC Hydro ratepayers), what measures will Fortis BC put in place to mitigate or eliminate those risks?⁹⁵

FortisBC replies stating: “specifically in relation to ‘arbitrage’ that FortisBC’s obligation to consult and formulate high-level principles was framed in Order G-60-14 and the accompanying reasons. FortisBC has therefore referred to ‘arbitrage’ in its proposed high level principles to complying with a direction from the Commission.”⁹⁶

⁹² Exhibit B-1, Appendix D, Nelson Hydro.

⁹³ Exhibit B-1, pp. 11–12.

⁹⁴ Exhibit C4-3, p. 5.

⁹⁵ Exhibit C2-3, p. 15.

⁹⁶ Exhibit B-7, p. 35, para. 103.

Nonetheless, FortisBC states, “it is not any particular definition of arbitrage that should determine whether or not the activities of a self-generator should be permitted by the Commission. Rather, it is the *potential* outcome or impact that such a sale may have on the utility and its other customers that should be the primary consideration.”⁹⁷

The Panel is aware that there has been a lot of confusion around the term ‘arbitrage’ and how it applies in this context. The concept and the arguments are well known by all parties in this proceeding but the Panel believes clarification is required in order to assist FortisBC in formulating the GBL Guidelines.

The concept of arbitrage as it relates to self-generation was first address by the Commission in Order G-38-01. The Commission addressed it in several other proceedings following Order G-38-01 but of most relevance here are the FortisBC’s Application for the purchase of assets of the City of Kelowna, Phase II⁹⁸ (Kelowna Decision) and the BC Hydro Contracted GBL Guidelines Decision.

The Kelowna Decision found that “in the Commission Panel’s view, true arbitrage can only occur where a self-generating customer purchases more energy than is required to serve its actual load at any moment in time, as would be the case for any customer.”⁹⁹ [Emphasis Added] This Panel appreciates the distinction and concurs.

In the current context of this Application the word ‘arbitrage’ is being used in a different way as it was in Order G-38-01. Order G-38-01 allowed for the difference between the embedded cost price and the negotiated or spot price to accrue to the self-generator as profit. However, as long as this ‘arbitrage’ was not to the detriment of other rate payers it was not considered to be ‘arbitrage’. This was achieved by having the customer lock into an amount of self-supply (based on historical levels) before exporting would be permitted.

This is where the confusion lies, as acknowledged by FortisBC and, as noted by certain interveners. There is some circularity in defining arbitrage with reference to the GBL when the GBL is itself intended to prevent arbitrage.¹⁰⁰

In the Contracted GBL Guidelines Decision the Commission stated that the term ‘arbitrage’ was likely not the correct term and requested that BC Hydro refer to it as “mitigate the risk to other ratepayers.”¹⁰¹ This Panel is also persuaded that the use of the word ‘arbitrage’ is not particularly helpful in this application. On the contrary, it seems to be subject to logical errors of both commission and omission related to the equivocal nature of its use by parties. The Panel agrees that 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. FortisBC also agrees that the acceptability of the activities of a self-generator should be evaluated against their potential impact on other utility ratepayers.¹⁰²

⁹⁷ Exhibit B-1, pp. 16–17.

⁹⁸ FortisBC Application for a Certificate of Public Convenience and Necessity for the Purchase of the Utility Assets of the City of Kelowna Phase 2, Order G-191-13 with reasons for decision dated November 22, 2013.

⁹⁹ FortisBC’s Application for the purchase of assets of the City of Kelowna, Phase II, Executive Summary.

¹⁰⁰ Exhibit B-7, para. 104.

¹⁰¹ BC Hydro Contracted GBL Decision, p. 24.

¹⁰² Exhibit B-1, p. 17.

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. Consistent with the Commission directive to BC Hydro in the BC Hydro Contracted GBL Guidelines Application, the Panel would like FortisBC to eliminate the word ‘arbitrage’ in any policy or guidelines that it may put forward in future filing and replace it with ‘mitigate the risk to other ratepayers’. The Panel hopes that this will help alleviate any further confusion.

For these reasons, the Panel supports a policy that allows customers to export self-generated electricity, as long as the risk to other ratepayers due to the difference between the regulated rates and the contract price or market price is mitigated.

What still needs to be addressed are the specific measures FortisBC needs to put in place to mitigate those risks. FortisBC proposes to use a GBL construct as a way to mitigate those risks based on the principles set out in Order G-38-01. Specifically, the GBL construct proposed by FortisBC embodies a concept whereby the amount of self-generation that a customer must use to off-set its load before it will be allowed to export any self-generation is defined by a baseline, known as a GBL, and any export of self-generation above that amount is deemed to be incremental.

The Panel will first consider FortisBC’s proposed GBL construct and then address FortisBC’s proposal to use ‘incremental’ self-generation to set the GBL based on the customer’s historical level of self-generation used to serve its load.

6.4.3 GBL construct

FortisBC puts forward a GBL construct to be used to mitigate the risk to other ratepayers due to differences between the regulated rates and the contract price or market. Specifically, FortisBC’s position is:

The Company will not provide embedded cost power to a self-generating customer at any time when that customer is selling self-generated power that is not in excess of its load except where such sales are made above the level of a Commission approved generator baseline (GBL).¹⁰³

FortisBC describes the GBL construct as defining how much self-generation must be used for self-supply, with any power above that eligible for export without being considered arbitrage (i.e. to result in a material risk to other ratepayers)¹⁰⁴

FortisBC also states that the relative benefits or drawbacks of any particular self-generator should not be reflected in determining a GBL.¹⁰⁵

BC Hydro states that FortisBC suggests that electricity sales “made above the level of a Commission approved GBL” in effect should be deemed not to be arbitrage. In BC Hydro’s view that approach misses the point – the

¹⁰³ Ibid., p. 13.

¹⁰⁴ Ibid., p. 17; Exhibit B-6, p. 33, para. 66.

¹⁰⁵ Exhibit B-6, para. 53.

issue is whether the proposed activities are in the public interest and not whether it falls within the definition of arbitrage.¹⁰⁶

Celgar states that in its view it is much clearer to recognize that GBLs define the obligation to serve, not that GBLs prevent arbitrage [mitigate the risk to other ratepayers]. Once the obligation to serve is defined by a GBL, then the self-generation output that must be used for self-service has been defined.¹⁰⁷

Celgar further submits that it believes the GBL Guidelines should incorporate principles from the 1999 Access Principles Application (APA) to the obligation to serve. Celgar also considers the APA and the obligation to serve to be inextricably linked to one another.¹⁰⁸

In considering the GBL construct to mitigate the risk to other ratepayers, as put forward by FortisBC, the Panel will address the following four matters that have been raised:

- (i) BC Hydro's public interest concern;
- (ii) FortisBC's position that the net benefits are not reflected in determining a GBL;
- (iii) Celgar's position that the GBL should define the obligation to serve; and
- (iv) The role of the APA in defining the obligation to serve.

(i) BC Hydro's public interest concern

The Panel has clarified the confusion around the use of the term 'arbitrage' and believes this should partially address some of BC Hydro's concerns. The Panel has also determined that a self-generator is entitled to export to either the utility or a third party as long as the risk to other ratepayers is mitigated. The GBL construct put forward by FortisBC is in accordance with this general principle. The BC Hydro Contracted GBL Guidelines embody this same construct and, given that the Panel has also determined that there is no difference between exporting to a third party and exporting to the utility, the Panel suspects that BC Hydro's concern has been alleviated. The FortisBC GBL Guidelines Application, to be filed in Stage II, will be reviewed by the Commission and only if they are determined to be in the public interest is there a possibility they would be approved.

(ii) Net benefits reflected in determining a GBL

FortisBC indicates that where there are positive net benefits for the installation of a self-generating facility, those benefits would be shared with the self-generating customer and all other customers.¹⁰⁹ FortisBC proposes that:

The overriding principle is that both costs and benefits should be recognized and accrue to both the self-generating customer and [FortisBC] customers in general on a shared basis.¹¹⁰

¹⁰⁶ Exhibit C2-3, p. 15.

¹⁰⁷ Exhibit C7-5, p. 17, para. 60.

¹⁰⁸ Ibid., p. 1, para. 2.

¹⁰⁹ Exhibit B-1, p. 33.

¹¹⁰ Ibid., p. 35.

FortisBC proposes the sharing of the net benefits should be done through an adjustment to the customers SBBD as set out in the Stand-by Rate. FortisBC also states that the net benefits should not be reflected in determining a GBL.¹¹¹

None of the interveners other than Celgar opposed a sharing of net benefits. Celgar believes that the benefits of self-generation do not belong to FortisBC or the customers and would like to ensure that the benefits of self-generation are accrued to the self-generator that made the investment in its generation assets.¹¹² Celgar believes that the utility has an obligation to serve the self-generators full load and the self-generator should be free to do as it wishes with its self-generation, including exporting it. Celgar further submits that FortisBC's proposed policies would have the Commission dictate the use that a Self-generation customer may make of its own self-generation output.¹¹³

In addition, Celgar states that:

...there can be no dispute that private investment in self-generation provides benefits. If used for load displacement, it saves BC utilities from the marginal costs of generating or purchasing the incremental energy that otherwise would be needed to supply the self-generation, and avoids for the self-generator the cost of purchasing power at utility rates. If sold, it provides revenue to the self-generator. It advances the Province's goal of energy self-sufficiency if not exported outside of the Province. And, in the case of self-generation from clean sources, it could promote clean energy and reduce carbon emissions.¹¹⁴

The Panel notes that Celgar also requests that the Commission, through the self-generation policy, first determine whether investors or other ratepayers needs to benefit from investments in self-generation. "Celgar believes that the Commission should provide reasons that clearly articulate whether it intends to dictate the use of self-generation output for self-generation customers - whether directly, such as through an imposed GBL mechanism, or indirectly, such as through "net-of-load" based service denial – or whether investors in self-generation should be entitled to determine the use of their self-generation."¹¹⁵

In the Panel's view a policy that results in the sharing of net benefits with the self-generator and the ratepayers does not dictate the use that a self-generation customer may make of its own self-generation output as suggested by Celgar. Rather, the self-generator should take into consideration the policies a utility has around self-generation and from there make a decision on how to use that self-generation within those boundaries. Furthermore, the Panel also does not support Celgar's position that all the benefits of self-generation should accrue to the self-generator and therefore the self-generator should be entitled to export its full load. Self-generation installed on the customer's side of the point of delivery (downstream of the customer's meter), provided advantages to the investor that investments in transmission connected generation, such as an independent power producer, does not. Most importantly the key benefit is its ability to use some, or all, of its self-generation to off-set its load. In the Panel's view the benefits of those advantages should be shared with ratepayers.

¹¹¹ Exhibit B-6, paras. 53–54.

¹¹² Exhibit B-1, pp. 10, 30.

¹¹³ Exhibit C7-5, p. 5.

¹¹⁴ *Ibid.*, p. 2.

¹¹⁵ *Ibid.*, p. 6.

At the same time, the Panel also has concerns with the net-of-load concept where the benefits are limited to reduced purchases from FortisBC. In the Panel's view, most of the benefits of self-generation under the net-of-load construct go to the ratepayer. The basis for this conclusion comes from Order G-38-01 which did not allow self-generators to increase their supply of embedded cost energy because it would cause harm to other ratepayers when there are high export electricity market prices and low embedded cost of service.¹¹⁶ If increasing load causes harm under these circumstances, then off-setting load logically must benefit ratepayers.

Although, FortisBC states that whether there is actually a benefit from a customer off-setting their load through self-generation at any given time is dependent on the alternatives available to FortisBC for its use of power and the relative price of supply,¹¹⁷ FortisBC must generally consider it to be a benefit or it would not have proposed a GBL construct on the basis of the historical level of self-generation used to serve load.

For these reasons, the Panel 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. However, the Panel does have concerns with FortisBC's proposal for sharing of the net benefits.

The Panel does not support FortisBC's proposal that the sharing of benefits are best reflected in the Stand-by Rate's SBBB. The Stand-by Rate is not available to replace energy that is being exported and is only available for that portion of the load that is being off-set. Further, the SBBB was designed under the net-of-load construct and did not take into consideration a GBL construct.

The Panel supports a concept whereby the relative benefits or drawbacks of self-generation are reflected in the GBL. The baseline established in Order G-38-01 was precisely that; a means to share the benefits between the self-generator and the utility. The customer with self-generation was allowed to capitalize on current market opportunities while ensuring that ratepayers were no worse off by requiring the self-generator to continue to off-set a portion of load that would not harm other ratepayers. This allowed the ratepayers to continue to realize the benefit from the utility not having to supply that portion of the self-generator load, which is a benefit to ratepayers. For this reason, the Panel is of the opinion that the very nature of the GBL design is to reflect the relative benefits or drawbacks of a particular self-generator. **Therefore, the Panel supports a policy whereby the sharing of the net benefits is reflected through the GBL.**

(iii) The obligation to serve

In the BC Hydro Contracted GBL Guidelines Decision the Commission confirmed that a GBL established for a customer exporting to a third party is analogous to two sides of the same coin; the GBL must be designed to both identify how much self-generation a customer has available for export and identify the amount of residual plant load that the serving utility has an obligation to serve as set out in the customer's contract demand.¹¹⁸

¹¹⁶ Commission Staff Report, p. 1, to Order G-38-01.

¹¹⁷ Exhibit B-1, p. 28.

¹¹⁸ BC Hydro Contracted GBL Decision, pp. 20–21.

FortisBC has put forward a GBL construct that is meant to define the level a self-generator that must use for self-supply before exporting is allowed. FortisBC states that the GBL consequently defines the supply obligation of the utility [i.e. the customer's load minus the amount the customer is required to self-supply.]¹¹⁹

Celgar states that the obligation to serve is a foundational principle that is either expressly or implicitly recognized in most, if not all, past Commission decisions regarding self-generation.¹²⁰ Celgar also holds that the utility has an obligation to serve the self-generator's full load.¹²¹

The Panel has several concerns with Celgar's view of setting the GBL on the basis of the utilities obligation to serve.

First, it does not address the concept that the Panel has already endorsed of a self-generator only being able to sell self-generation that is not a risk to other ratepayers. Celgar's proposal does not address or ensure that risk to other ratepayers is mitigated.

Second, Celgar has stated, and the Panel has already disagreed, that a self-generator should be entitled to have its full load served by the utility and that the utility has an obligation to serve that load. Celgar's proposal to have the GBL set on the basis of the utility obligation to serve a full load would result in a GBL of zero and thus rendering the GBL concept moot. Furthermore, under this proposal all the benefits would go to self-generator and there would be no sharing of benefits.

Finally, the Order G-38-01 proceeding was set up precisely to define the obligation to serve customers with self-generation, as evidence by the title of the proceeding: BC Hydro's Obligation to serve Rate Schedule 1821 Customers with Self-Generation Capacity Application. The issue to be resolved in that proceeding was whether and to what extent a self-generator can sell its self-generation output while taking power at embedded cost rates. In that proceeding there was no determination made that the starting point was determining the obligation to serve, rather quite the opposite. The Panel determined that a baseline was set on the basis of how much the customer had to self-supply. The obligation to serve was implicit: the customer's load less the amount the customer was required to self-supply.

For these reasons, the Panel supports a GBL construct to mitigate the risk to other ratepayers that demarks the amount of electricity that the customer must generate for self-supply prior to using any self-generation for export. As pointed out by FortisBC, this consequently defines the supply obligation of the utility.

Celgar further submits that it believes that the GBL Guidelines should incorporate principles from the 1999 APA to the obligation to serve and that the APA and the obligation to serve are inextricably linked to one another.¹²² Although the Panel has determined that the GBL is not set in relation to the obligation to serve it will address Celgar's submission to provide clarity on the differing viewpoints.

¹¹⁹ Exhibit B-1, p. 2

¹²⁰ Exhibit C7-5, p. 1.

¹²¹ Exhibit B-1, p. 18.

¹²² Exhibit 7-5, p. 1.

(iv) 1999 Access Principles in the context of self-generating customers

In the mid-1990s power markets in the United States were being deregulated. In 1995 the British Columbia Electricity Market Review recommended that all utilities owning transmission assets submit transmission service tariffs. In 1998 FortisBC (then West Kootenay Power) filed with the Commission both a Transmission Access Application seeking approval of wholesale transmission access and retail transmission access for its industrial and municipal customers, and the Access Principles Application (APA).

The APA related primarily to the treatment of customers, who were then supplied with fully bundled embedded cost electricity service. The Access Principles contained in the APA provide the terms for access to wholesale transmission service so that all or a portion of a customer's load could be provided by non-Utility sources such as independent power producers or marketers. The Access Principles established conditions under which the customer may do so and under which the customer may later return to obtaining electricity supply for their load from FortisBC. The goal of the APA was to encourage the development of a competitive generation market.

Having Access Principles was necessary because if an eligible customer was to exit FortisBC service in favour of an alternative supplier, the customer would be taking the risk that the alternative supplier could default leaving the customer without power for its facilities and equipment. The conditions on re-entry (Fair Treatment and Re-Entry Provisions) to FortisBC service contained in the Access Principles are a critical factor for any customer considering exiting Fortis BC supply under the Access Principles.

The APA was reviewed through a negotiated settlement agreement and by Order G-27-99 the Commission approved the Proposed Settlement Agreement (PSA) but note that "nothing in the PSA provides a precedent for other utilities or circumstances."¹²³

Up until now, no customer has ever chosen to exit embedded cost service for a third party supply source using the APA. Further, the objectives to encourage the development of a competitive generation market as a practical alternative to utility supply never developed.¹²⁴

Application

Directive 5 or Order G-60-14 directed FortisBC to address in the SGP Application the Access Principles in the context of self-generating customers. The Panel also requested further submissions on the Applicability of the APA Decision as one of the questions on the Panel's Issues List.

Specifically, Question 2 stated: Should the 1999 Access Principles established in Order G-27-99 apply to self-generating customers in the FortisBC service area?

In response to this directive FortisBC put forward the following policy in the Application:

In FortisBC's view, the 1999 Access Principles were developed for use in circumstances that are fundamentally different than the disposition of a customer's self-generation, and applying the

¹²³ Order G-27-99, directive 1.

¹²⁴ Exhibit B-1, p. 20.

*Access Principles to self-generation use is a fundamental misapplication of the Access Principles under the conditions included by the Commission in Order G-27-99 and [the] accompanying Decision.*¹²⁵

FortisBC states that the Commission should conclude that the Access Principles does not apply to self-generating customers in the FortisBC service territory.¹²⁶

Submission

FortisBC further clarifies its position stating that there is no question that the Access Principles apply to self-generating customers in the case where a portion of load not served by self-generation is served in whole or in part from a third party source.¹²⁷

FortisBC argues that “An alternate supplier was never considered to be self-supply, and self-supply does nothing to further the objective of fostering competitive generation market that was the focus of the APA proceeding.”¹²⁸

Celgar’s position has been that it is not relevant if the supply is from a third party or is self-supplied because the APA applies to “Eligible Customers who choose to obtain some or all supply from ‘non-Utility resources’.”¹²⁹

FortisBC’s view is that the Access Principles were developed for use in circumstances that are fundamentally different than the disposition of a customer’s self-generation.¹³⁰ FortisBC argues the potential impact of extending the Access Principles to customers with self-generation is to allow a self-generating customer to withdraw or partially withdraw from FortisBC service for its load requirements through the use of self-generation as though it had done so using a third party for supply. FortisBC argued that this would allow a customer with self-generation who opts for energy supplied by a non-Utility supplier [including itself] to return to embedded cost service with the utility after providing two-year notice of their return without regard to the impact its return may have on other customers.¹³¹

Celgar is of the view that the Access Principles are fully applicable in the context of self-generating customers. As such, Celgar believes that an obligation to serve a self-generation customer’s full mill load at embedded cost rates continues to exist.¹³²

Celgar further submits that APA, while implicitly recognizing the obligation to serve, explicitly establishes the basis upon which customers are entitled to leave and return to utility service. The underlying principle supporting the APA, the obligation to serve, is not waived by a customer taking service from another source.¹³³

¹²⁵ Exhibit B-1, p. 20.

¹²⁶ Exhibit B-6, p. 10.

¹²⁷ Ibid., p. 9. [Emphasis Added]

¹²⁸ Exhibit B-1, p. 21.

¹²⁹ Appendix A, p. 1, to Order G-27-99. [Emphasis Added]

¹³⁰ Exhibit B-1, p. 20.

¹³¹ Ibid., p. 14.

¹³² Exhibit B-1, p. 22.

¹³³ Exhibit C7-5, p. 10.

Celgar argues this issue, and the issue of whether the APA is applicable to self-generating, customers has been previously considered by the Commission and should not be revisited by this Commission Panel.¹³⁴

FortisBC acknowledges that some Commission determinations since 2010 seemed to suggest that by virtue of the APA, FortisBC may have an obligation to supply at least some embedded cost power to those self-generating customers who also qualify as ‘Eligible Customers’ under the APA even while they are exporting generation that is not net-of-load, as long as there is no BC Hydro RS 3808 energy in the mix.¹³⁵

However, FortisBC further states that “the importance of the 1999 Access Principles to the current discussion is greatly diminished in light of more recent decisions, particularly the New PPA Decision. Indeed FortisBC believes it is rendered moot with a prohibition on arbitrage in place”¹³⁶. FortisBC states that GBL Guidelines would satisfy the anti-arbitrage condition in Directive 5 of Order G-60-14 and avoid the need to resolve the issue of whether the APA applies within the context of self-generation.¹³⁷

Nevertheless, FortisBC states that the fact that the Commission has raised the question here confirms that this issue was never finally determined.

BCOAPO, BC Hydro and BCMEU agree with FortisBC’s arguments that the APA is not applicable to self-generating customers¹³⁸. BCMEU further submits that it “agrees with FBC that the 1999 Access Principles were developed for use in circumstances that are fundamentally different than the disposition of a customer’s self-generation”¹³⁹ CEC indicated that there may be a need to revisit the 1999 Access Principles due to the evolution of the marketplace since they were first implemented.¹⁴⁰

Past Decisions

The Panel acknowledges that the Commission has made some preliminary determination on the applicability of the APA to a self-generating customer as raised by Celgar and acknowledge by FortisBC.

Celgar argues this issue has been previously considered by the Commission and should not be revisited by this Commission Panel.¹⁴¹ In support of its position Celgar points out that in the ‘Zellstoff Celgar Limited Partnership Complaint regarding the failure of FortisBC Inc. and Celgar to complete a General Service Agreement and FortisBC’s Application of Rate Schedule 31 Demand Charges Application’ decision attached to Order G-188-11 (Celgar Complaint Application) the Commission concluded the following:¹⁴²

The mere status of being a customer who self-generates should not preclude FortisBC from its obligation to serve that customer. Nor does it automatically exempt such customers from

¹³⁴ Exhibit C7-5, pp. 9–10.

¹³⁵ Exhibit B-1, p. 21; Exhibit B-6, p. 12.

¹³⁶ Ibid., pp. 20-21.

¹³⁷ Exhibit B-1, p. 2.

¹³⁸ Exhibit C1-3, p.5; Exhibit C2-3, p. 10; Exhibit C5-3, p. 1.

¹³⁹ Exhibit C5-3, p. 1.

¹⁴⁰ Exhibit B-1, p. 23.

¹⁴¹ Exhibit C7-5, pp. 9–10.

¹⁴² Ibid., p. 9.

accessing some amount of non-PPA embedded cost power. It would be fair that Celgar receive fair treatment within the FortisBC service area vis-a-vis other industrial customers. Yet, self-generators that sell into power markets do have the potential to negatively impact other FortisBC customers by necessitating acquisitions by the utility of power from other sources in order to supply the power the self-generator elects to purchase from the utility while simultaneously selling into the markets. Therefore, the Commission Panel finds Celgar is entitled to some amount of FortisBC's non-PPA embedded cost power when selling power. But it is unclear what that level should be. (Emphasis in original) ¹⁴³

Celgar states that the above-quoted Commission conclusions establish self-generation policy. And this Commission Panel must decide upon whether or not to revisit and reconsider established Commission conclusions. Celgar submits that it would be unfair to do so. ¹⁴⁴

Celgar further points out that in the decision accompanying Order G-202-12 in the matter of 'A Filing by FortisBC Inc. Guidelines Establishing Entitlement to Non-PPA Embedded Cost Power and Matching Methodology' (Matching Methodology), the Commission stated: ¹⁴⁵

The Commission Panel concurs with FortisBC's conclusion that a self-generator that is an Eligible Customer under the APA may have the right that up to 100 percent of its expected load be served by FortisBC NECP and that the self-generator may nominate the portion of that load to be served by FortisBC NECP. All service to an Eligible Customer is subject to the APA, notably the Fair Treatment and Re-Entry Provisions. ¹⁴⁶

Both in the Application and in its Submission FortisBC refers to several past decisions in support of its argument that the APA does not apply including: the Celgar Complaint Application; the FortisBC Inc. Application for Stepped and Stand-by Rates for Transmission [Voltage] Customers (2014) Application; Matching Methodology Application; the FortisBC 2009 Cost of Service and Rate Design Application, and the BC Hydro New PPA Application.

Of most relevance, FortisBC points out the Matching Methodology decision found that:

The Panel considers that the Re-Entry Provisions are likely subject to the Fair Treatment principle for Eligible Customers who are self-generators. However this "no-harm construct" issue has not been adequately canvassed in this proceeding, thus the Panel declines to make a finding, but rather expects that it will be addressed in the upcoming stepped transmission rate design hearing. ¹⁴⁷ [Emphasis Added]

As highlighted previously, FortisBC further argues that the importance of the APA to the current discussion is greatly diminished in light of more recent decisions, particularly the New PPA Decision because of the prohibition on arbitrage requirement. ¹⁴⁸

¹⁴³ Celgar Complaint Application Decision, p. 38.

¹⁴⁴ Exhibit C7-5, p. 9.

¹⁴⁵ Ibid., p. 10

¹⁴⁶ Matching Methodology Decision, page 8. [Emphasis Added]

¹⁴⁷ Ibid., p. 9.

¹⁴⁸ Exhibit B-1, pp. 20–21.

Celgar submits that given how clearly the Commission has applied the APA to determinations relevant to Celgar in the past (which remain relevant to this date), it cannot be, as FortisBC claims that FortisBC is not seeking to revisit past decisions. Celgar has made extensive submissions in the past regarding the APA, at considerable expense and effort, and should not be required to do so once again in this proceeding. Celgar will not, at this juncture repeat the entirety of the record that led to the above-cited Commission conclusions.¹⁴⁹

In reply, FortisBC states "... FBC is concerned that Celgar seems to be preparing to argue more about Question 2 at a later stage. Celgar says...that it 'will not, at this juncture repeat the entirety of the record that led to the above-cited Commission conclusions'. FBC is not asking that any participant repeat the whole of any record, but it should not be open to that intervener to do so at a later stage."¹⁵⁰

By Order G-60-14 the Panel stated that there was a lot of confusion around what applied to self-generation customers and specifically directed FortisBC to address the Access Principles in the SPG Application.

As pointed out by FortisBC,¹⁵¹ the Commission stated its Decision on the Celgar Application for Reconsideration of Order G-60-14 Application that "[m]any related applications received since 2009 clearly demonstrated that there was a problem. That problem was the fact that FortisBC's self-generation policies have not been sufficiently developed or articulated nor have they been approved by the Commission. For instance, the 1999 Access Principles clearly were due for a review in today's context."¹⁵²

The Panel has addressed the issues of the applicability of the APA to FortisBC's SPG and GBL Guidelines further in this Stage I process by requesting the parties to address it as one of the questions on the Panel Issues List. The very nature of the Panel Issues List was to obtain the positions of the parties on the relevance and applicability of past decisions, including the APA Decision, in current and future circumstances. The Panel stated in Order G-32-15, which it issued after the procedural conference, that:

The Panel agrees with FortisBC that it makes little sense for FortisBC to be drafting and filing GBL Guidelines which it believes to be based on past Commission decisions when other people would take the view that in fact, the high level principles on which the GBL Guidelines would be based, are departures from those past Commission decisions.

In making this determination, the Panel is mindful of Celgar, BC Hydro, AMPC and BCSEA's positions that this could end up as not just a review of the high-level principles but as a reconsideration of past Commission decisions. However, the Panel does not agree that these would be reconsiderations. Rather, the Panel holds that the previous decisions were ones made based on the evidence provided and the conditions prevalent at the time of the specific decision and that this evidence is a matter of record.¹⁵³

The Panel disagrees with Celgar that those issues have been resolved and are not up for discussion. The fact that the Commission has raised the question here confirms that this issue was never finally resolved. In Order for the

¹⁴⁹ Exhibit C7-5, p. 10.

¹⁵⁰ Exhibit B-7, p. 26.

¹⁵¹ Ibid., p. 25

¹⁵² Celgar Application for Reconsideration of Order G-60-14 New PPA, Decision p. 5.

¹⁵³ Order G-32-15, Reasons for Decision, p. 5.

Commission to eventually approve any FortisBC GBL Guidelines this issue will need to be resolved and the Panel believes that the time is now.

The Panel notes that all the parties were given sufficient notice and were provided with an opportunity to speak to the issues. The Commission received submissions from all the parties on the Panel Issues List and FortisBC provided a reply submission. As such, there is sufficient evidence on the record for the Panel to make a determination on the applicability of the APA to the FortisBC SGP and GBL Guidelines.

The Panel considered the past decisions where the APA was addressed and disagrees with Celgar that the Commission, through its determinations on the APA, established self-generation policy. A final determination on the applicability of the APA to self-generation customers was never made by the Commission; it was only addressed at a preliminary level within a specific context.

In regard to the decision in Order G-188-11 quoted by Celgar, this Panel does not disagree with the Commission's finding, and in fact support those positions. Specifically, the Panel agrees that the mere status of being a customer who self-generates does not preclude FortisBC from its obligation to serve that customer nor does it automatically exempt such customers from accessing some amount of embedded cost power. The Panel wishes to highlight that Order G-188-11 stated that "Commission Panel finds Celgar is entitled to some amount of FortisBC's non-PPA embedded cost power when selling power. But it is unclear what that level should be." [Emphasis Added]

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.

In regard to the decision in Order G-202-12 referred to by Celgar, the Commission stated that an Eligible Customer 'may' have the right to up to 100 percent of its expected load but would be subject to the Fair Treatment and Re-Entry Provisions of the APA. The Commission concluded that the Fair Treatment and Re-Entry Provision's 'no-harm construct' has not been adequately canvassed in that proceeding and therefore the Commission declined to make a final determination. The Commission stated that it expected these issues would be addressed in the upcoming stepped transmission rate design hearing.

In the FortisBC Stepped and Stand-by Rates for Transmission [Voltage] Customers Application the Commission denied the Non-Embedded Costs Rate Rider by Order G-188-15A. As a result no determinations on the applicability of the APA to self-generation customers, including any interpretation on Fair Treatment and Re-Entry Provisions, were made.

The Panel notes that the Celgar Complaint Application (Order G-188-11) and the Matching Methodology Application (Order G-202-12) decisions were made under the assumption of a net-of-load construct while FortisBC put forward a GBL construct in the SGP Application. The GBL construct is designed to specifically address the issue of how much FortisBC embedded cost service a self-generation customer can have access to while simultaneously exporting self-generation.

The Panel concludes that the Commission stills needs to make a final determination on how the APA applies to a customer with self-generation as this issue has not been resolved. The goal of the APA was to encourage the development of a competitive generation market and it established principles relating to the terms for access to wholesale transmission service so that all or a portion of a customer's load could be provided by non-Utility sources. This Panel can see how a connection could have been made at a preliminary level between a self-generation customer serving its own load and a self-generation customer obtaining service from a third party given that they are both, strictly speaking, non-Utility sources.

However, the Panel acknowledges FortisBC's position that the Access Principles did not contemplate the situation of electricity exports or self-supply. When a customer self-supplies they can easily switch between self-supplying and purchasing embedded cost energy from the Utility. On the other hand obtaining supply from a third party would require some form of long term commitment to purchase from the third party.

At the time of the APA in 1999, other types of customers such as self-generators did not exist and in the Panel's view the application and applicability of the APA to self-generating customers must be considered in light of the original intent of the circumstance prevailing at that time and the events that have transpired since that time.

First, customers with self-generation were not a consideration before the Commission at the time the APA was approved and the Commission specifically directed in the order approving the APA that "nothing in the PSA [Proposed Settlement Agreement] provides a precedent for other utilities or circumstances."¹⁵⁴

Second, the Panel notes that in the case of a self-generator, the customer's facilities and equipment are powered at least in part by self-generation, with any residual electricity requirements supplied by the utility. Building and operating self-generation facilities is not the same as accessing an alternative supplier. If self-generation facilities are operating normally, the customer's facilities and equipment are supplied with electrical power and there is no issue. There is no risk of alternative supplier default. A self-generator does not "re-enter" utility service when it has a self-generation outage and needs additional supply from the utility. A self-generator's access to FortisBC supply during self-generation outages is addressed in the FortisBC stand-by service as recently approved by the Commission.

For these reasons the Panel determines that the principles set out in the APA are not relevant to the development of any SGP or GBL Guidelines in the FortisBC service area. Rather it is the SGPs and GBL Guidelines that will establish the treatment for customers with self-generation in the FortisBC service area.

6.4.4 Setting the GBL based on load historically used

In previous sections of this Stage I Decision the Panel has shown support for a policy where self-generating customers have the ability to export incremental self-generation as long the risks to FortisBC's other ratepayers, due to the differences between regulated rates and the contract or market prices, are mitigated through a GBL. The GBL demarks the amount of electricity that the customer must generate for self-supply. Any power generated above the GBL would be eligible for export and would not be considered to harm other ratepayers.

¹⁵⁴ Order G-27-99, directive 1.

The last significant concept regarding the policies and positions put forward by FortisBC is establishing how the GBL is set. FortisBC advocated the following incremental generation approach, which is similar to the one put forward in the BC Hydro Contracted GBL Guidelines Application:

*FBC customers with self-generation are able to export incremental self-generation output to third parties, where incremental self-generation output is power produced above the output normally used for self-supply as represented by a Generator Baseline (GBL).*¹⁵⁵ [Emphasis Added]

FortisBC puts forward specific policies for repurposed generation output, idle generation, and new generation summarized as follows:^{156,157}

For customer with repurpose or idle generation output incremental is established by a GBL set with reference to the amount of load historically served by the self-generator.

For customers with new self-generation, they should have discretion whether to use their self-generation to displace their own load consumption or for export without restrictions on generator type, size and/or location. As a result, all new self-generation would be considered incremental generation and available for export.

If a customer at some point decides to use that new or incremental generation to serve load, it should not create an ongoing obligation to continue to use the generation in that manner.

FortisBC states that generation that is “new” has not historically been used to serve load and would not be restricted. In FortisBC’s opinion a customer that installs new generation that has not served load previously should be free to dispose of its generation as it wishes [export].¹⁵⁸

In the Application, little was addressed concerning customers with existing self-generation currently exporting under the net-of-load construct. It appears that generally the policies put forward regarding idle and new generation were meant to apply under those circumstances equally.

In response to FortisBC’s position the interveners made the following submissions.

Both Tolko and AMPC agree with FortisBC that the GBL should be set at the historic level of self-generation used to serve its own load.^{159,160}

BCOAPO notes that FortisBC has suggested that if a customer, at some point, decides to use new or incremental generation to serve load, it should not create an ongoing obligation to do so. BCOAPO does not agree that this should necessarily be the outcome in all cases.¹⁶¹

Celgar believes that consideration must be taken in order to define how long generation needs to be down in

¹⁵⁵ Exhibit B-1, p. 24

¹⁵⁶ Ibid., p. 17.

¹⁵⁷ Ibid., p. 29.

¹⁵⁸ Ibid., p. 26.

¹⁵⁹ Ibid., p. 24.

¹⁶⁰ Exhibit C6-3, p. 2.

¹⁶¹ Exhibit C1-3, p. 8.

order for it to be considered idle, while, CEC holds that the policy must adequately define what incremental generation is.¹⁶²

BC Hydro suggests that in the context of equipment, "idle" means "not active or in use" and 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.¹⁶³

The BCMEU notes that eventually new or incremental generation is no longer new and incremental so perhaps there should be a formula or guiding principle as to how to treat new or incremental generation. For example, 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. Of course any methodology would be more complex than as presented above and may need to consider type of generation, availability of fuel source, and perhaps block wise increments rather than linear.¹⁶⁴

Celgar, who is a customer with existing self-generation and export under the net-of-load concept, notes the following concerns it has with the incremental generation approach based on historical generation advocated by FortisBC. Celgar submits that this is a particularly egregious formulation as it applies to Celgar, as Celgar is situated in a service area where DSM measures, energy purchase agreements and GBL's were foreign concepts when it first repowered its mill. As a result, Celgar's past use of its self-generation was largely defined for it. For these reasons, Celgar submits that the FortisBC approach to setting the GBL on the basis of historical self-generation levels must be rejected, even (and particularly) as a high level principle.¹⁶⁵

In summary, Celgar's issues with FortisBC's proposed approach to setting the GBL fall into the three following areas:

- Inequitable treatment between existing and new self-generation
- Does not appropriately address harm to ratepayers
- Flaws in the rate impact test

Inequitable treatment between existing and new self-generation

Celgar contends that "FortisBC's formulation arbitrarily assumes the status quo conditions as the starting point, and looks at change to the status quo. This unfairly treats existing self-generation differently from new self-generation, without basis."¹⁶⁶ Celgar submits that "Yesterday's investor must continue to use its self-generation for self-supply for no reason other than that has been doing so, and tomorrow's investor does not, only because other ratepayers have not yet tasted the benefit."¹⁶⁷

¹⁶² Exhibit B-1, p. 24.

¹⁶³ Exhibit C2-3, p. 16.

¹⁶⁴ Exhibit C5-3, p. 5.

¹⁶⁵ Exhibit C7-5, p. 22.

¹⁶⁶ Ibid., p. 2.

¹⁶⁷ Ibid., p. 3.

Celgar further states that harm must be assessed not as from some arbitrary date in the calendar, when different investors are at different stages in their investment, but at the same point in time relative to each investment.¹⁶⁸ One who invests in self-generation today incurs the same types of costs Celgar incurred, and that investment can provide precisely the same type of benefits to other ratepayers as Celgar's investment. There is no justifiable basis to treat it more favorably simply because it came later.¹⁶⁹

Harm to Ratepayers

Celgar submits that the "harm to ratepayers" argument thus is flawed conceptually because one cannot be harmed by the withdrawal of a benefit to which one has no entitlement.¹⁷⁰

Celgar claims that it's self-generation has provided benefits to FortisBC's other ratepayers because Celgar has installed, at its own expense, generation assets that it has used to meet its own load.

Celgar further claims that "as a direct result, other ratepayers (primarily those of BC Hydro) have benefited by avoiding their share of the burden of the higher marginal costs of acquiring incremental electricity that would have been necessary to serve Celgar's load (which they otherwise would have been obligated to incur had Celgar not self-supplied)."¹⁷¹ Rates are lower than they otherwise would be.¹⁷²

Increased rates test

Celgar submits that rates to other ratepayers may increase with the change in the use of self-generation output but unless the Commission is willing to redistribute the benefits of investment in self-generation output an increase in rates is a fair and equitable outcome.¹⁷³

In reply to the Celgar specific issues, FortisBC states that it has not suggested that the date of Order G-38-01 itself is the marker or starting point in the determination of incremental generation or on the establishment of a GBL.¹⁷⁴ FortisBC also clarifies that it is not an issue per se with factoring in harm to other ratepayers, but, rather, an issue about how and in what context that harm should be measured.¹⁷⁵

In the Panel's view the method used to set the GBL is the most contentious and has significant implications. Understating the circumstance that first gave rise to the incremental generation approach based on historical self-generation used to serve load, as proposed by FortisBC may shed some light on if and how it could be applied to the FortisBC service area.

¹⁶⁸ Ibid., p. 2.

¹⁶⁹ Ibid., p. 3.

¹⁷⁰ Ibid., p. 3.

¹⁷¹ Ibid., p. 15, para. 50.

¹⁷² Ibid., p. 3.

¹⁷³ Ibid., p. 4.

¹⁷⁴ Exhibit B-7, para. 45.

¹⁷⁵ Ibid., p. 41.

As already acknowledged, Order G-38-01 was the genesis of an incremental approach based on historic self-generation. In the Panel's view it was the following set of circumstances that made the 'historic level of self-generation used to serve load' a reasonable approach to mitigate the risk of harm to other ratepayers.

First, Order G-38-01 essentially defined "no harm to other ratepayers" as the utility not being required to supply any increased embedded cost service to the self-generator because it resulted in increased cost to current ratepayers. As the Panel already concluded, logically it would have to be the case that the cost to acquire resources to service any additional load would be greater than the embedded rates it receives from these customers. Therefore, if maintaining the status quo protects ratepayers from harm, one can conclude that using self-generation to off-set load is beneficial to ratepayers.

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; however, this generation would be profitable at market prices.¹⁷⁶ The self-generator would have been behaving in an economically efficient manner and using whatever self-generation was economically efficient to off-set load when no other opportunities to use their self-generation, such as exporting, existed (efficient economic decision).

Third, the notion of no harm to other ratepayers was the preservation of the "status quo", such that BC Hydro's obligation to serve was limited to the load served at a particular time, and self-generating customers were required to continue to serve that portion of their own load that they had served in the past.¹⁷⁷

Fourth, there was a balance between not harming the ratepayers and allowing the self-generators to capitalize on market opportunities described as a sharing of benefits. Ratepayers received the benefits of the self-generator off-setting a portion of its load and the self-generator received the benefits of having the opportunity to export the remaining self-generation.

The Panel considered the following in evaluating FortisBC's proposal for setting the GBL for idle generation and new generation:

- FortisBC's incremental generation approach based on historical self-generation,
- the Submissions,
- the set of circumstances under which Order G-38-01 was made.

The Panel also considered how these policies could impact a customer currently exporting under the net-of-load concept.

(i) Idle generation

The set of circumstances that rendered historical self-generation as the way to mitigate the risk to other

¹⁷⁶ Commission Staff Report, p. 1, to Order G-38-01.

¹⁷⁷ New PPA Decision, p. 100.

ratepayer in Order G-38-01 likely applies in the case of a FortisBC customer with idle generation today. 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. **The Panel generally supports an incremental approach, based on a historical level of self-supply, for customers with idle self-generation; however a clear definition of what constitutes 'idle' would be necessary.**

(ii) New generation

The Panel is concerned with a policy that sets the GBL at a level that results in all new self-generation being incremental and available for export. BC Hydro put forward a similar policy in its Contracted GBL Guidelines Application and the Commission rejected it.¹⁷⁸ In that proceeding, the Commission was concerned that such a policy would lead to a GBL of zero and result in harm to other ratepayers because the BC Hydro Contracted GBL Guidelines did not require any evaluation as to whether the proponent would have installed and operated the new self-generation in the absence of funding from BC Hydro.

The Panel supports the idea that Order G-38-01 still applies to FortisBC today; however, it's of relevance to note that Order G-38-01 only applied to idle generation and did not address other situations, such as new generation. One of the circumstances that led to the concept of 'historic level of self-generation used to serve load' as an appropriated means to mitigate harm to other ratepayers was that the self-generator was operating in an economically efficient manner. Under FortisBC's proposal this would not be the case as there is no consideration as to whether the self-generator would have installed the self-generation in the absence of having the opportunity to export. Further, because the self-generator would not be required to use any of its self-generation to off-set its load there would be no sharing of benefits - all the benefits would go to the self-generator and none to the ratepayer. Although one could argue that ratepayers are no worse off this is only the case because the assessment is being made before the self-generator even starts self-generating.

For these reasons, the Panel does not support a policy for customers with new self-generation which sets a GBL where all self-generation is considered incremental and available for export. In the Panel's view it would be unfair to treat existing self-generation differently from new self-generation simply on the basis as to when the investment in self-generation was made. At some point everyone's self-generation was new. This policy rewards late adopters of self-generation and unduly penalizes the early adopters. Such a policy would not ensure that all customers are treated in a fair manner and would likely result in unjust, unreasonable, unduly discriminatory or unduly preferential treatment and would not result in a sharing of benefits.

In addition to the concern regarding the setting the GBL for new customers, the Panel also has the following additional concerns:

¹⁷⁸ BC Hydro Contracted GBL Guidelines, section 6.5.

- the ability for the customer to have discretion whether they use their self-generation to displace load or export;
- if a customer at some point decides to use that new or incremental generation to serve load, it should not create an ongoing obligation to continue to use the generation in that manner; and
- without restrictions on generator type.

The Panel does not support a policy where a customer with self-generation would have discretion as to whether they use their incremental self-generation to displace load or export once the GBL is set. In the Panel's view this would be true arbitrage according to Black's Law Dictionary, which states: "An investment strategy involving the simultaneous purchase and sale of two assets in order to capitalize on small price or rate discrepancies." Rather, the GBL should set the amount of self-generation that a customer must self-supply and from that point forward the customer should be required off-set that load – no more or no less. The utility has an obligation to serve but the customer also has an obligation to purchase the agreed upon amount.

The Panel notes that such a restriction was not necessary in the BC Hydro Contracted GBL Guidelines because in the BC Hydro service area a GBL is only used when a customer has an EPA or LDA with BC Hydro. Under those circumstances there is no opportunity to switch between off-setting load and exporting to a third party.

Lastly, certain parts of both the CEA and the BC Energy Plan apply to FortisBC. Therefore, in the Panel's view, some consideration should be given to generator type within the context of clean energy for both idle and new generation.

(iii) Customers currently exporting under the net-of-load construct

Order G-60-14 directed FortisBC to determine, for existing self-generating customers, how much generation must be used for self-supply; however, the Application did not address this directly. Rather, the policies put forward for setting the GBL for idle generation, addressed by the Panel above, appear to apply equally to customers currently exporting under the net-of-load restriction. The Panel has the following concerns with applying the policy for idle generation to customers currently exporting under the net-of-load construct:

- It appears that this would result in the net-of-load customer having no 'idle' generation (less than their load) because the customer has been off-setting its full load in order to export. By definition this would result in the continuation of the net-of-load construct for these customers.
- It appears that there would be no sharing of benefits, because there would be no 'idle' generation, and all the benefits would accrue to the ratepayer.
- It appears that this would result in the status quo which under these circumstances may not be appropriate because rates are likely lower than they otherwise would have been as the utility has not been required to supply the net-of-load customer with energy to serve its load. The Panel notes that rates may currently be lower than they otherwise would have been under the net-of-load restriction and an increase in rates, due to a change to these circumstances, would not necessarily be considered harmful to other ratepayers.

- A GBL based on the 'historical level of self-supply' was appropriate under the assumption that the customer was self-generating in an economically efficient manner (i.e. generating up to the point where it is more economical to self-generate than purchase energy at regulated rates) in the absence of an opportunity to use its self-generation to capitalize on current market opportunities. In the case of a customer who is required to off-set its entire load before it can export, this assumption does not hold as the customer is likely off-setting load at a higher level.

For these reasons, the Panel does not support a policy that sets the GBL for customers currently exporting under the net-of-load restriction in the same manner as a customer with idle generation. Treating customers currently exporting under the net-of-load construct on the basis of preserving the status quo would not ensure that all customers are treated in a fair manner and may well result in unjust, unreasonable, unduly discriminatory or unduly preferential treatment.

Overall, the Panel has concerns with FortisBC's incremental generation approach to set a GBL based on the historical level of self-supply other than its application for customers with idle generation that are currently not exporting under the net-of-load restriction.

As such, the fundamental policy question that the GBL Guidelines filed in Stage II will need to address is how to set the GBL for customers with new generation and customers currently exporting under the net-of-load restriction such that fairness prevails.

In consideration of these reasons, the GBL Guidelines Application filed in Stage II need to examine alternatives for setting the GBL for customers with new generation, customers that make upgrades to existing generation, and customers currently exporting under the net-of-load construct. Any alternative method put forward should: reflect a sharing of benefits over the long-term, mitigate the risk to other ratepayers, and treat all customers in a fair and comparable manner.

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:

- (i) **Setting the GBL based on a percentage of generation obtainable from feedstock which is available as a by-product of the industrial processes, such as black liquor or hog fuel;**
- (ii) **Setting the GBL at the same percentage for every customer on the basis of a percentage of their load or as a percentage of generation. For example a policy where the GBL is set for every customer based on 25 percent, 50 percent or some other percentage of its load; and**
- (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.**

6.5 The role of the net-of-load construct under a GBL methodology

FortisBC's Supporting Policies and positions put forward in the Application do not address the continuing role, if any, of the net-of-load restriction under a GBL construct. In response to a question on the Panel's Issues List, FortisBC and the interveners put forward their positions as follows.

In FortisBC's view, there would continue to be a role for the net-of-load concept in two circumstances in the FortisBC service area even if the GBL methodology is approved.

First, the 'net-of-load' approach would remain the default unless or until a particular number is agreed on as a GBL between the utility and customer or in the case where the customer generation was not operating at a level sufficient to meet its GBL obligation. 'Net of load' reflects the way in which meters work.

Second, certain customers may prefer not to arrive at a GBL even with GBL Guidelines in place and may, instead, wish to continue on the 'net-of-load' approach indefinitely.¹⁷⁹

Celgar believes that "the current 'net-of-load' restrictions, if continued and broadly applied, will provide a disincentive to future investment in self-generation in the FortisBC service area, both as to itself and others that may consider investing."¹⁸⁰ Celgar also believes "that the net-of-load criteria does not have any role in self-generation policy, with or without the acceptance of GBL methodology."¹⁸¹

The BCSEA and BCOAPO's position is that in the absence of a Commission-approved GBL, the net-of-load concept is necessary as the default concept, while the BCMEU submits that if the GBL methodology is adopted, the net-of-load concept has no role.¹⁸²

Tolko favors the 'net-of-load' method currently employed. Tolko is of the view that any generation that is Net-of-Load, at any time, should be eligible for sale using access to the FortisBC's Transmission.¹⁸³

FortisBC suggests that BC Hydro's "strong feelings against export of electricity by self-generating customers, as expressed in its submissions, suggest that whatever unease it has with 'net of load' is limited to situations where the customer sells to the utility."¹⁸⁴

Generally the Panel supports FortisBC's position and agrees with the general concept that if a customer does not have a GBL the net-of-load construct would continue to be the default. However, the most appropriate place to flesh out the continued role of the net-of-load construct will likely be through the Stage II filing as the role of the net-of-load restriction will be dependent on the other SGPs that are put forward.

¹⁷⁹ Exhibit B-6, p. 37, paras. 76–78.

¹⁸⁰ Exhibit C7-5, para. 52.

¹⁸¹ Ibid., para. 62.

¹⁸² Exhibit C4-3, p. 5; Exhibit C-1, p. 6; Exhibit C5-3, p. 4.

¹⁸³ Exhibit B-1, p. 24.

¹⁸⁴ Exhibit B-7, para. 115.

Nevertheless, clarification of the role of the net-of-load construct under a GBL construct should be a component of FortisBC's SGP. This will ensure that all customers are treated in a fair manner and will not result in any unjust, unreasonable, unduly discriminatory or unduly preferential treatment. Further, it will provide key information to guide customers considering making investments in self-generation. **Therefore, FortisBC's SGP filed in Stage II needs to include a policy statement that clarifies the role of the net-of-load construct under a GBL construct.**

7.0 INCENTING SELF-GENERATION

Thus far the Panel has considered the policies and position put forward by FortisBC in the Application with respect to removing barriers to self-generation only. The Panel has not yet, addressed encouraging or incenting self-generation.

Nelson Hydro believes that an SGP should encourage self-generation and that there should be an economic incentive to develop generation such that generators are afforded the opportunity to maximize profit.¹⁸⁵ Celgar requests that FortisBC's SGP includes a policy whereby FortisBC is encouraged to enter into energy supply agreements and/or load displacement agreements with its self-generating customers. BC Hydro states that it is unfortunate that FortisBC takes the position that it is not FortisBC's role to encourage self-generation in its service area, particularly given that FortisBC's existing generation resources are insufficient to meet the aggregate load of its customers.¹⁸⁶ BC Hydro further states that in the BC Hydro service area, its 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.¹⁸⁷

The Panel recognized the possibility that there could be some benefits if FortisBC had programs in place to incent additional self-generation, in addition to just removing barriers. However, the Panel also recognizes that BC Hydro's circumstances, as a crown owned utility, required to implement government policy, and motivated to keep energy within BC, are different than that of FortisBC which is an investor owned utility and likely less motivated without direct financial incentives.

7.1 Load displacement projects and DSM

As part of the review of this Application, FortisBC, Celgar and BC Hydro provided the following submissions with regards to LDA's for customer's self-generation which FortisBC replied to.

BC Hydro submits that FortisBC self-generation policy excludes consideration of the potential role of new self-generation in FortisBC's long term resource planning, including opportunities for demand-side measures such as FortisBC implementing rate structures and providing funding for load displacement projects to encourage self-generation and reduce demand on the system.¹⁸⁸ BC Hydro states that "The BC Energy plan and the policy

¹⁸⁵ Exhibit B-1, p. 10.

¹⁸⁶ Exhibit C2-3, p. 4.

¹⁸⁷ Ibid., p. 15.

¹⁸⁸ Exhibit C2-3, p. 4.

actions summarised in Appendix A of it, provide strong support for utilities in British Columbia to pursue all cost-effective demand-side managements programs, including load displacement.”¹⁸⁹

Celgar believes that such incentives should be provided in similar circumstances as those being provided to BC Hydro self-generation customers.¹⁹⁰

In Reply, FortisBC submits that BC Hydro has also raised the possibility of including in FBC’s resource plan consideration of “opportunities for demand-side measures such as FortisBC implementing rate structures and providing funding for load displacement projects to encourage self-generation and reduce the demands placed on the FortisBC system. However, even apart from the difficulties identified above in relation to an assessment of these options at this stage, this proceeding is not the forum in which to embark on a resource planning exercise. Resource planning involves a detailed, time intensive internal process leading to the filing of an application by FortisBC; in the regulatory proceeding that ensues, interveners may have the opportunity to make information requests and submissions, and FBC has the opportunity to respond in an orderly manner. FortisBC will be filing its next long-term resource plan for Commission review in 2016 and will continue in that context to pursue the most cost-effective resource portfolio.”¹⁹¹

FortisBC concludes stating, “in any case, should interveners or the Commission wish to explore the extent to which FBC may rely on self-generation in the future, the appropriate venue for the discussion is during an examination of the Company’s resource plan.”¹⁹²

The issue of FortisBC’s DSM programs generally, which could include load displacement programs with its industrial customers, has recently been addressed by the Commission in Order G-67-14 and Order G-186-14.

Specifically, in the Stage I Stand-by Rate Decision (Order G-67-14) the Commission determined that FortisBC should ensure sufficient focus is given to identifying and addressing DSM opportunities for its industrial customers as a way of achieving efficiencies benefits.¹⁹³

In Order G-186-14, the FortisBC Application for Approval of DSM Expenditures for 2015 and 2016 (the DSM Expenditures Decision, Order G-186-14), the Commission directed FortisBC to include in its next DSM Annual Report a review and discussion of whether opportunities exist in expanding DSM funding to 2013 approved levels for industrial customers while continuing to obtain cost-effective energy savings.¹⁹⁴ The Commission also directed FortisBC to include in its next DSM Annual Report an update on FortisBC’s efforts to identify and mitigate (through DSM programs) market barriers to energy efficiency investment and consumption decisions of its industrial customers.¹⁹⁵

¹⁸⁹ Ibid., p. 11.

¹⁹⁰ Exhibit C7-5, p. 16;

¹⁹¹ Exhibit B-7, p. 8.

¹⁹² Ibid., para. 25.

¹⁹³ BC Hydro Application for Approval of Stepped and Stand-by Rates for Transmission [Voltage] Customers, Decision, p. 15.

¹⁹⁴ Decision to Order G-186-14, p. 23.

¹⁹⁵ Ibid., p. 25.

The Panel notes that FortisBC has recently been encouraged by the Commission to ensure sufficient focus is given to identifying and addressing DSM opportunities for its industrial customers. Further both the CEA and the BC Energy Plan support pursuing cost-effective DSM programs.

Nevertheless, the Panel agrees with FortisBC's position that the appropriate venue for the discussion of opportunities for demand-side measures such, as FortisBC implementing rate structures and providing funding for load displacement projects to encourage self-generation and reduce the demands placed on the FortisBC system is during an examination of the Company's resource plan.

For these reasons, the Panel encourages FortisBC to address DSM programs for self-generation customers as part of its next resource plan and or its next DSM Expenditure filing. If and when any such programs are established they would indirectly become part of FortisBC's SGP.

7.2 Energy purchase agreements for incremental self-generation

BC Hydro submits that 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.¹⁹⁶

FortisBC explains that to the extent that a potential benefit would be realized through purchase by a utility of the self-generator's excess, this benefit will only be realized if a utility can acquire the power in a cost-effective manner, meaning that it compares favourably to other available resource options.¹⁹⁷

FortisBC submits that it is unlikely that new generation will be able to meet such a test, and unlike in the BC Hydro case, where there are customers with idle generation that may be made available in a cost-effective manner through an EPA or LDA, FortisBC has no such opportunities of which it is aware.¹⁹⁸

In discussing whether or not FortisBC would consider the purchase of the output from a self-generator, FortisBC notes that it would do so only where it compared favourably to other power supply options that were available.¹⁹⁹ FortisBC submits that the practical reality in its service territory is that it is not aware of existing cost-effective opportunities for the purchase of self-generation output with the exception of the limited-scale purchases that it does on occasion make from Celgar and Tolko.²⁰⁰

FortisBC points out that it "has routinely purchased power from both Celgar and Tolko. In terms of a larger and sustained purchase, FortisBC evaluates its various power supply options in the context of its resource plans, and is in the course of preparing its next long-term resource plan. The prospect of purchasing power from self-generating customers may be evaluated in the course of that exercise as it has been in the past, though presently FortisBC cannot sensibly do so in the absence of resolution on the GBL parameters that will be in

¹⁹⁶ Exhibit C2-3, pp. 13–14.

¹⁹⁷ Exhibit B-7, p. 8.

¹⁹⁸ Exhibit B-6, p. 25.

¹⁹⁹ *Ibid.*, p. 27.

²⁰⁰ Exhibit B-7, p. 6.

place. Further, given the history of BC Hydro purchasing from Celgar and its interest in purchasing from Tolko, it is unclear how much, if any, power would remain available.”²⁰¹

For clarity FortisBC notes “that all power presently leaving the FortisBC service territory from self-generating customers (that is, the present “exports” from those customers) is going to BC Hydro. Presumably this export is, as BC Hydro states, is the objective for its self-generation policy, cost-effective for BC Hydro. That does not mean it is cost effective for FBC.”²⁰²

While the Panel understands FortisBC’s position, it notes the following regarding assessing cost-effectiveness:

First, FortisBC submits that the practical reality is that it is not aware of existing cost-effective opportunities for the purchase of self-generation output, where cost-effective compares favourably to other available resource (power supply) options; however, FortisBC did not provide details on how it assesses ‘cost-effectiveness’.

BC Hydro on the other hand states that it evaluates cost-effectiveness relative to the provincial LRMC of new firm energy.²⁰³ As fully discussed in Section 6.1.3, the Panel has concerns with the way FortisBC’s proposes to evaluate cost-effectiveness on a shorter term basis and those concerns and recommendation identified in Section 6.1.2 apply equally to these circumstances.

Second, the Panel appreciates that FortisBC evaluates its various power supply options in the context of its resource plan. However, in the Panels view FortisBC’s SGP should disclose how FortisBC will evaluates potential long term energy purchase contracts with self-generation customers when comparing it to other available resource options.

The Panel notes that many of the benefits to self-generation listed by FortisBC could also apply when FortisBC purchases clean energy from its self-generating customer, especially when the electricity does not physically leaves the plant site, as in the BC Hydro service area. Such benefits could include:

- electricity self-sufficiency, reduced greenhouse gas emissions,
- 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, and
- relieve transmission congestion.

²⁰¹ Exhibit B-7, p. 23.

²⁰² Ibid., p. 6, para. 17.

²⁰³ Exhibit C2-3, pp. 13–14.

For clarity, the Panel is not suggesting that FortisBC's SGP should include a policy that requires FortisBC to purchase incremented energy that it does not need or that is not cost effective; however, **the SGP filed in Stage II needs to establish a policy that defines how FortisBC measures cost-effectiveness when evaluating potential long term energy purchase contracts with a self-generation customer and establish a policy that sets out criteria that it will use when comparing a potential long term energy purchase contract with a self-generation customer against other available resource options.**

Clarification by way of policy will ensure that all customers are treated in a fair manner and will not result in any unjust, unreasonable, unduly discriminatory or unduly preferential treatment. Further, it will provide key information to guide customers considering making investments in self-generation.

8.0 FINAL DETERMINATION AND THE STAGE II FILING

The Panel determines that the principles set out in the 1999 Access Principles Application, approved by Order G-27-99, are not relevant to the development of FortisBC's SGP or the GBL Guidelines.

FortisBC is directed to file a Stage II Self-Generation Policy Application, which includes both a comprehensive Self-Generation Policy and Generator Baseline Guidelines, in accordance with the decision issued concurrently with this order, within 120 days of the date of this order.

(i) The comprehensive SGP needs to:

- Apply to both current and future customers;
- Identify how long the policy will be in place and how often it will be reviewed or updated;
- Establish policies that outlines the circumstances under which FortisBC will do nothing, remove barriers or incent self-generation;
- Establish policies that assist in mitigating barriers to cost-effective clean self-generation;
- 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) FortisBC'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);
- Establish separate policies for customers that intend to use self-generation to off-set load and policies related to customers who intend to export self-generation;
- 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;
- Address restrictions on generator type taking into consideration the applicable sections of the CEA and the BC Energy Plan for self-generating customers off-setting load as well as exporting;

- Include policies that address both exporting to a third party, and exporting to FortisBC;
- Establish a policy that defines how FortisBC measures cost-effectiveness when evaluating a potential long term energy purchase contracts with a self-generation customers;
- Establish a policy that sets out criteria that will use when comparing a potential long term energy purchase contracts with a self-generation customers against other available resource options;
- Identify any tariffs, agreements, rate schedules, interconnection issues, transmission access issues and any business practices necessary to facilitate such exporting to a third party or to FortisBC; and
- Include a policy statement that clarifies the role of the net-of-load restriction under a GBL construct.

(ii) **The GBL Guidelines need to consider that:**

- The Panel supports a policy that allows customers with self-generation to export incremental self-generation to a third party as long as the risk to other ratepayers due to difference between the regulated rates and the contract price or market price is mitigated;
- The Panel supports a GBL construct to mitigate the risk to other ratepayers that demarks the amount of electricity that the customer must generate for self-supply prior to using any self-generation for export;
- The Panel supports the position that the GBL consequently defines the supply obligation of the utility. The GBL is not calculated by establishing the supply obligation but rather the amount of electricity that the customer must generate for self-supply;
- The Panel supports the policy where the net benefits are recognized and accrue to both the self-generating customer and FortisBC's customers on a shared basis;
- The Panel does not support the position that the sharing of net benefits is best reflected through the Stand-by Rate's SBB, rather the Panel find that the GBL is the mechanism that reflects a sharing of the net benefits between the ratepayers and the self-generator;
- The Panel does not support a policy that would allow a self-generating customer to elect, on a short term opportunistic basis, whether any incremental self-generation above the GBL will be deemed to serve the customer's load or deemed to be exported;
- The Panel does not support a policy where a customer with self-generation would have discretion as to whether they use their incremental self-generation to displace load or export once the GBL is set;
- The Panel generally supports the setting of the GBL at the normal historical level for self-supply for idle generation; however, a definition of idle will be necessary;
- The Panel does not support the setting of the 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 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).

- The Panel supports the general concept that if a customer does not have a GBL the net-of-load construct would be the default.

(iii) **The GBL Guidelines need to address:**

- Alternative methods for setting the GBL for customers with new generation, customers that make upgrades to existing generation, and customers currently exporting under the net-of-load construct as the Panel does not support the historic level of self-supply approach for these customers (status quo). At a minimum the Stage II filing will need to evaluate and consider the following three alternate approaches (which could also apply to idle):
 - (i) Setting the GBL based on a percentage of generation obtainable from feedstock which is available as a by-product of the industrial processes, such as black liquor or hog fuel;
 - (ii) Setting the GBL at the same percentage for every customer on the basis of a percentage of their load or as a percentage of generation. For example a policy where the GBL is set for every customer based on 25 percent, 50percent or some other percentage of its load; and
 - (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.
- Adjustments to a GBL once set;
- How long GBL will last once it has been set;
- Whether changes to the GBL will be required due to load changes, and if so how;
- Whether each GBL will requires Commission approval; and
- If the GBL will be a capacity measure (MW), an hourly energy measure (MWh/hour), an annual energy measure (MWh/year).

9.0 APPLICATION FOR APPROVAL OF SECTION 2.5 GUIDELINES TO RATE SCHEDULE 3808

BC Hydro stated in the BC Hydro Section 2.5 Guidelines Application that “[u]ntil FortisBC clearly articulates the service(s), if any, it will offer to enable its customers to simultaneously buy electricity from FortisBC and sell into export markets, it will not be clear whether the arbitrage risks, to BC Hydro ratepayers, associated with such transactions will be mitigated.”²⁰⁴ BC Hydro concludes its Submissions in this proceeding by stating that it “remains concerned that the FortisBC self-generation policy proposal would be expected to increase costs to BC Hydro ratepayers through an inappropriate reliance on BC Hydro embedded generation resources to support electricity exports from the FortisBC service area.”²⁰⁵

FortisBC submits that “given that BC Hydro’s present submissions appear to be infused with the considerations it would apply to Section 2.5 Guidelines [Application], the Commission may wish to determine in full what would

²⁰⁴ BC Hydro Section 2.5 Guidelines proceeding, Exhibit B-1, p. 6.

²⁰⁵ Exhibit C2-3, p. 18.

satisfy BC Hydro, and whether those expectations are reasonable, before finally concluding this portion of the present proceeding. It would be unfortunate if a similar set of debates between FBC and BC Hydro had to recur at a later stage.”²⁰⁶

The Panel set out as part of its Framework for Evaluation that one of the main objectives of FortisBC’s SGP is the eventual removal of the Section 2.5 Restrictions. The Panel remains concerned that a lack of acceptance on BC Hydro’s part of FortisBC’s SGP and GBL Guidelines could trigger another round of applications or complaints and resultant in regulatory inefficiencies.

However, the Panel is optimistic that the directives and guidance provided in this Stage I Decision will provide enough clarity so as to remove BC Hydro’s concerns. Nevertheless, the Panel expects that BC Hydro’s position on FortisBC’s SGP and GBL Guidelines will be addressed through its intervention in the Stage II filing.

Ultimately, the best place to resolve the matter of the eventual removal of the Section 2.5 Restrictions is through the BC Hydro Section 2.5 Guidelines Application proceeding. By Order G-4-15 the BC Hydro Section 2.5 Guidelines proceeding was suspended until further notice. It is likely best to continue the suspension until after the review of that FortisBC Stage II Application has concluded; however, that is not up to this Panel to decide at this time.

²⁰⁶ Exhibit B-7, paras. 120, 122, 125.

DATED at the City of Vancouver, in the Province of British Columbia, this 4th day of March 2016.

Original signed by:

B. A. MAGNAN
PANEL CHAIR / COMMISSIONER

Original signed by:

L. A. O'HARA
COMMISSIONER

Original signed by:

R. D. REVEL
COMMISSIONER



ORDER NUMBER
G-27-16

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

FortisBC Inc.
Self-Generation Policy Application

BEFORE:

B. A. Magnan, Panel Chair/Commissioner
L. A. O'Hara, Commissioner
R. D. Revel, Commissioner

on March 4, 2016

ORDER

WHEREAS:

- A. On January 9, 2015, FortisBC Inc. (FortisBC) filed a self-generation policy application (SGP Application) with the British Columbia Utilities Commission (Commission) in compliance with Directive 5 of Order G-60-14 and Order G-67-14;
- B. The SGP Application puts forward FortisBC's high level policy statement (High Level Policy Statement) and, in support of this statement, addresses the specific policy subject areas as identified in Directive 5 of Order G-60-14. These areas include: arbitrage, 1999 Access Principles, a policy on Generator Baseline (GBL) Guidelines, and the benefits of self-generation (Supporting Policies);
- C. The British Columbia Old Age Pensioners' Organization *et al.* (BCOPAO), B.C. Sustainable Energy Association and Sierra Club of British Columbia (BCSEA), Commercial Energy Consumers Association of British Columbia (CEC), British Columbia Hydro and Power Authority (BC Hydro), British Columbia Municipal Electrical Utilities (BCMEU), Zellstoff Celgar Limited Partnership (Celgar), and the Association of Major Power Customers (AMPC) registered as interveners;
- D. By Order G-3-15, dated January 13, 2015, the Commission established a procedural conference that was held on February 5, 2015;
- E. After the procedural conference by Order G-32-15 dated February 27, 2015, the Commission determined that the review of the Application would proceed by way of the following two-staged approach:
 - Stage I: The Panel makes certain findings on the High Level Policy Statement and Supporting Policies to establish building blocks for Stage II;
 - Stage II: Filing and review of a Self-Generation Policy Application;

- E. To ensure that the Panel had sufficient information in Stage I to consider the High Level Policy Statement and Supporting Policies, the Panel sought submissions and a reply from FortisBC on the Panel's Issues List that was previously the subject of comment by FortisBC and interveners (collectively the Submissions);and
- F. The Panel considered the evidence in the Application and the Submissions and provides both guidance and determinations to assist FortisBC in the development of a comprehensive Self-Generation Policy and GBL Guidelines that will form the basis for Stage II.

NOW THEREFORE the British Columbia Utilities Commission orders as follows:

1. Within 120 days of the date of this order, FortisBC Inc. (FortisBC) is directed to file a Stage II Self-Generation Policy Application, which includes both a comprehensive Self-Generation Policy and Generator Baseline Guidelines, in accordance with the decision issued concurrently with this order.
2. The principles set out in the 1999 Access Principles Application, approved by Order G-27-99, are not relevant to the development of FortisBC's Self-Generation Policy or the Generator Baseline Guidelines.
3. Participant cost award applications are to be filed within 45 days of the date of this order.
4. This order concludes the review of the subject application. The review of the Stage II Self-Generation Policy Application identified in directive 1 above will be established as a new proceeding.

DATED at the City of Vancouver, in the Province of British Columbia, this 4th day of March 2016.

BY ORDER

Original signed by:

B. A. Magnan
Panel Chair/Commissioner

PANEL ISSUES LIST

Submissions were received from FortisBC and all the interveners. AMPC did not answer the questions; however, along with BC Hydro and Celgar included submission on additional matters.

Panel Issues List

- 1) *What, if any, past Commission decisions are applicable in establishing a self-generation policy in the FortisBC service area? If any are applicable, please specify why.*
- 2) *Should the 1999 Access Principles established in Order G-27-99 apply to self-generating customers in the FortisBC service area?*
- 3) *What, if any, application does the BC Energy Plan have in establishing a self-generation policy in the FortisBC service area? If applicable, please specify why.*
- 4) *What, if any, application does the Clean Energy Act have in establishing a self-generation policy in the FortisBC service area? If any are applicable, please specify why.*
- 5) *What, if any, are the current and future potential benefits or drawbacks to self-generation in the Fortis BC service area? (i) How does a self-generator's location impact the assessment of current and future benefits? (ii) How, if at all, should the relative benefits or drawbacks of any particular self-generator be reflected in determining a GBL?*
- 6) *Should FortisBC's self-generation policy incent self-generation? If yes, under what circumstances?*
- 7) *What should the definition of arbitrage be in the current and future FortisBC service area environment?*
- 8) *Is there a role for the net-of-load concept in the FortisBC service area if the GBL methodology is accepted? If yes, what is that role?*
- 9) *How should the GBL be defined in the context of both idle historic self-generation and current idle self-generation?*

LIST OF ACRONYMS

AMPC	Association of Major Power Customers
APA	1999 Access Principles Application
BC Energy Plan	2007 BC Energy Plan: A Vision for Elan Energy Leadership Guidance
BC Hydro	British Columbia Hydro and Power Authority
BC Hydro Contracted GBL Guidelines Application	BC Hydro Application for Contracted Generator Baseline Guidelines and Reconsideration and Variance of Order G-19-14
BC Hydro Section 2.1 of the 1993 PPA	Application by BC Hydro to Amend Section 2.1 of Rate Schedule 3808 Power Purchase Agreement
BC Hydro Section 2.5 Guidelines Application	Application for Approval of Section 2.5 Guidelines for Tariff Supplement No. 3 to Rate Schedule 3808
BCMEU	British Columbia Municipal Electrical Utilities
BCOAPO	British Columbia Old Age Pensioners' Organization et al.
BCSEA-SCBC	B.C. Sustainable Energy Association and Sierra Club of British Columbia
CEA	<i>Clean Energy Act</i>
CEC	Commercial Energy Consumers Association of British Columbia
Celgar	Zellstoff Celgar Limited Partnership
Celgar Complaint Application	Zellstoff Celgar Limited Partnership Complaint regarding the failure of FortisBC Inc. and Celgar to complete a General Service Agreement and FortisBC's Application of Rate Schedule 31 Demand Charges Application
Commission, BCUC	British Columbia Utilities Commission
CSB	Customer Specific Baseline
Directive 5	Directive 5 of Order G-60-14
DSM	Demand-side measures
EPA	Energy Purchase Agreement
FortisBC, Applicant or FBC	FortisBC Inc.

G-38-01 Decision	Decision on BC Hydro Obligation to Serve Rate Schedule 1821 Customers with Self-Generation Capacity
GBL	Generator Baseline
GBL Guidelines Application	The FortisBC Generator baseline Guidelines Application to be filed in Stage II
Kelowna Decision	FortisBC Application for a Certificate of Public Convenience and Necessity for the Purchase of the Utility Assets of the City of Kelowna Phase 2
LDA	Load Displacement Agreement
LRMC	Lon Run Marginal Cost
Matching Methodology	A Filing by FortisBC Inc. Guidelines Establishing Entitlement to Non-PPA Embedded Cost Power and Matching Methodology
MW	Megawatt
New PPA	New Power Purchase Agreement
New PPA Decision	Decision on the BC Hydro Application for Approval of Rates between BC Hydro and FortisBC Inc. with regards to Rate Schedule 3808, Tariff Supplement No. 3 – Power Purchase and Associated Agreements, and Tariff Supplement No. 2 to Rate Schedule 3817
Panel Issues List	List of nine panel Issues
PSA	Proposed Settlement Agreement
SBBD	Stand-by Billing Demand
Section 2.5	New PPA including section 2.5(a)(ii)
Section 2.5 Restrictions	Restrictions included in section 2.5(a)(ii) of the New PPA
SGP	Self-Generation Policy
SGP Application	FortisBC Inc. Self-Generation Policy Application Stage I
Stand-by Rate Decision – Stage I	Decision on the FortisBC Application for Stepped and Stand-by Rates for Transmission [Voltage] customers – Stage I
Submissions	Submission receive for from FortisBC Inc. and Intervener on the Panel Issues List
Tolko	Tolko Industries Ltd.

TS to RS 37 Application	Directive to FortisBC to file a Tariff Supplement to Electric Tariff Rate Schedule 37 that establishes the principles to be considered in setting future customer's Stand-by Billing Demand (Decision attached to Order G-46-15, p.24 in the Application for Approval of Stepped and Stand-by Rates for Transmission [Voltage] Customers)
UCA	<i>Utilities Commission Act</i>

Appendix F

**NEW POWER PURCHASE AGREEMENT DECISION
SECTION 8**

8.7 The Continued Need for Section 2.5

One of the concerns that the Commission Panel expressed in its December 13, 2013 letter was whether BC Hydro ratepayers still required the additional protection afforded in section 2.5 of the New PPA when consideration was given to the terms of the New PPA (Exhibit A-17, pp. 1–2).

8.7.1 Supplemental Submissions of BC Hydro and FortisBC

BC Hydro submits that

“[i]f the New PPA used the No Restrictions Approach [no restrictions included in section 2.5] there could be a significant loss to BC Hydro and its ratepayers due to the inappropriate arbitrage activities the BCUC has consistently opposed” (Supplemental Submission, Exhibit B-16, para. 94). BC Hydro also notes that “the exact dollar figure is not important. The potential for material loss and the policy principle are what matters” (Supplemental Submission, Exhibit B-16, para. 95).

FortisBC acknowledges the regulatory principle that self-generating customers of a utility should not be permitted to arbitrage between embedded cost utility rates and market prices to the detriment of the utility’s other ratepayers and supports this principle. However, FortisBC believes that Commission decisions related to the APA have made the status of this principle somewhat unclear. (Supplemental Submission, C1-24, para. 32)

FortisBC submits that under the current regulatory environment BC Hydro continues to require the restrictions for the following reasons:

- the potential further interpretation by the Commission of the APA which could lead to arbitrage in the FortisBC territory;
- the current market conditions could change over the 20 year term of the New PPA; and
- although, under the No Restrictions Approach, FortisBC does not presently anticipate making use of additional RS 3808 power, in particular because of the Tranche 1 cap, if faced with increased self-generation demand, the factors that underpin this constraint may change. (Supplemental Submission, C1-24, para. 6)

However FortisBC states that

“[i]f self-generator customers were clearly prohibited from arbitraging between embedded cost FortisBC rates and market prices in the FortisBC service territory, the restrictions...would be redundant. The arbitrage that section 2.5 seeks to prevent would not be occurring.” (Supplemental Submission, para. 7)

FortisBC further submits that if the same GBL principle used in BC Hydro’s service territory clearly applied and was enforced in the FortisBC territory, it would not only eliminate the need for the section 2.5 restrictions but it would provide provincial consistency. FortisBC also states that this would be preferable to the matching methodology. (Supplemental Submission, Exhibit C1-24, para. 6–9 and 24)

FortisBC concludes that clearly, if the restrictions in section 2.5 were not included in the New PPA now, it is reasonable to assume that BC Hydro would likely seek to revisit the New PPA at some future time and be more inclined to continue to intervene in FortisBC’s regulatory proceeding in order to ensure its perceived interested were safeguarded. (Supplemental Submission, Exhibit C1-24, para. 21)

8.7.2 Supplemental Submissions of Interveners

Celgar submits that the restrictions in section 2.5 have no place in the New PPA. Celgar states that

“[f]irst BC Hydro is now in a surplus energy supply position, such that harm to other ratepayers cannot simply be presumed. Second, there is no longer a gap between market rates-and embedded cost rates favouring embedded cost rates. Third, given the cap on Tranche 1 energy in the New PPA, FortisBC does not anticipate purchasing additional New PPA power, and, due to changes in the New PPA even if FortisBC were to purchase additional Tranche 2 power, no harm would result to BC Hydro customer.” (Supplemental Submission, Exhibit C5-10, para. 74)

In summary, Celgar submits there is no evidentiary basis for concluding that BC Hydro or its ratepayers face any significant or real risk under the New PPA (Supplemental Submission, Exhibit C5-10, para. 97). Celgar recommends that the “Commission reform [s]ection 2.5 of the New PPA so

as to delete [s]ections 2.5(a)(ii), 2.5(a)(iii) and 2.5(b)” (Supplemental Submission, Exhibit C5-10, para. 109).

BCMEU states

“[t]hat in the current environment these restrictions are not required to protect BC Hydro, however we also accept that the environment may change over the course of the PPA. We further believe that the PPA is not the appropriate place to set regulations for self-generators and that the self-generators....would be better served by having self-generator regulations separate and standalone.” (Supplemental Submission, Exhibit C4-5, p. 2)

BCMEU agrees that it is not in the best interest of the Interveners nor of the electric utility rates payers in general to have regulatory complexity such as surrounds the self-generator issue. Therefore, BCMEU supports the concept of simplifying the requirements by removing section 2.5 from the proposed PPA and further that the regulation of self-generator energy exports be handled as a separate standalone document. BCMEU also acknowledges that the inclusion of the restrictions facilitates the PPA renewal agreement and recommends that section 2.5 could be left in the PPA with a defined expiry term upon Commission approval of a set of self-generator rules applicable throughout the Province. (Supplemental Submission, Exhibit C4-5, pp. 2–4)

BCPSO submits that the materiality of any negative impact to BC Hydro’s ratepayers should not be a deciding factor when fundamental principles are involved. BCPSO further submits that allowing FortisBC to establish GBLs (or other mechanisms) to address the issues of arbitrage from its own customers’ perspective will not address the risk that BC Hydro is seeking to mitigate through section 2.5 as proposed. In summary, BCPSO states if their concerns regarding customers input were addressed (as would be by the changes recommended by BC Hydro in paragraph 113 of its Supplemental Submission) the New PPA should be approved without any need to alter the provisions of section 2.5. However, BCPSO recommends that the BCUC establish a proceeding to determine individual GBLs for FortisBC’s customers. (Supplemental Submission, Exhibit C2-7, para. 11–14)

Alain Wait submits that both BC Hydro and FortisBC ratepayers must be considered. The restrictions in section 2.5 are necessary as the Pacific Northwest surplus may be reduced in the not so distant future. Mr. Wait further submits section 2.5 should be amended to include defining the criteria used by BC Hydro in developing GBLs. If FortisBC were free to establish their own GBLs it would be difficult to determine them when no parameters have been presented on the setting of GBLs. (Supplemental Submission, Exhibit C6-5, pp. 1–3)

BCSEA submits that section 2.5 of the New PPA is still necessary under the current environment because it is a long-term agreement that must be worded to take into account a wide range of potential future market conditions. BCSEA is of the view that it is far more effective to remove the risk by including section 2.5 than to speculate about the negative consequences that might occur if it was deleted. BCSEA also states that the risk would exist as a matter of legal reality, regardless of the likelihood or magnitude of actual damages due to materialization of the risk. (Supplemental Submission, BCSEA C7-7, pp. 1–2)

CEC submits it supports the general regulatory principle and the inclusion of section 2.5 of the New PPA. CEC suggests that at another time, and in another regulatory process, the Commission should initiate a process to clarify the circumstances for self-generators in the FortisBC territory to clearly align the principles used in the BC Hydro territory with those in the FortisBC territory – this would obviate the need for clarification in the New PPA. (Supplemental Submission, Exhibit C11-7, p. 1)

8.7.3 BC Hydro's Supplemental Reply

BC Hydro submits that

“[i]n the absence of certainty regarding the rules that FortisBC will apply to its self-generating customers, it is not possible to set conditions in section 2.5(a)(ii) of the New PPA that are tailored specifically to such rules. No FortisBC rules exist. Indeed, the slate has been all but wiped clean in that regard by the recent Order G-191-13 determinations.” (Supplemental Submission, Exhibit B-17, para. 23)

For BC Hydro, the issue then is whether section 2.5(a)(ii) of the New PPA should remain or if the New PPA should be silent at this time and be amended in the future after the rules for FortisBC's service area have been resolved (Supplemental Submission, Exhibit B-17, para. 24).

BC Hydro notes that Celgar prefers the second approach, which it does not support as it would have to rely on FortisBC to negotiate arrangements to protect BC Hydro's customers. BC Hydro does not consider that FortisBC or its customers would be motivated to do so. Further, BC Hydro questions whether FortisBC would maintain its support for the principles in section 2.5 if the restrictions were removed on a temporary basis. (Supplemental Submission, Exhibit B-17, para. 23–26)

Regarding the request for further process BC Hydro submits that

“the BCUC reiterated once again [Reasons to Order G-191-13] that the rights and obligations between FortisBC and its customers are issues to be resolved through negotiations between FortisBC and its customers, taking into account all competing interest and mechanism within the broad book ends. The service agreements that result from such negotiations will need to be presented to the BCUC for approval, BC Hydro suggest that those FortisBC activities are the appropriate context for further consideration of rules for FortisBC self-generating customers.” (Supplemental Submission, Exhibit B-17, para. 45)

8.8 Section 2.5 — Commission Summary Determination

The Panel has already highlighted that Order G-48-09 made two significant determinations relevant to this proceeding. The first one addresses the Self-Generation Policy Issue in the FortisBC service territory. The Commission determined that this larger comprehensive issue was not addressed through the proposed section 2.5 New PPA. The second determination was protection for BC Hydro's ratepayers from the risk of harm due to FortisBC's self-generating customers arbitraging between embedded cost rates and market rates. This Panel earlier also noted that section 2.5 of the New PPA was designed by BC Hydro to continue to provide it with that protection.

However, the Panel concluded that the specific way BC Hydro proposes to obtain such protection is problematic. Specifically, the Panel considers that to ensure rates are not unjust, unreasonable,

unduly discriminatory or unduly preferential a lengthy regulatory proceeding may be required to set individual GBLs for each self-generating customer. The Panel found little regulatory efficiencies in this approach and noted that it could result in inconsistent outcomes and uncertainties for self-generators in the FortisBC service territory.

The Panel also identified two further issues caused by the restrictions as proposed in section 2.5 of the New PPA. First, the restrictions have led to rate design complications in the FortisBC territory for which an agreeable solution has yet to be found. Secondly, the Panel is concerned that keeping the restrictions in the New PPA would considerably restrict FortisBC's flexibility in the future to change its regulations for customers with self-generation. Given the long term nature of the New PPA and the changing energy environment there may come a time during the term of the New PPA where the GBL methodology is no longer desirable, even in the BC Hydro service area. If the restrictions are to remain in the New PPA, FortisBC's options to adapt to a changing environment may be constrained.

Therefore, the Panel took closer looks at the terms of the New PPA, including the Tranche 1 Cap, the Tranche 2 price, and the Energy and Nomination Scheduling requirements, to determine whether there remains any material risk of harm to BC Hydro's ratepayers that warrants it reasonable to continue to include these problematic restrictions in the New PPA.

Based upon this further examination the Panel concludes that any embedded cost energy that could have been used to serve incremental load under the 1993 PPA has almost totally been eliminated by the terms of the New PPA due to the introduction of the Tranche 1 cap, the Tranche 2 price and the Energy and Nomination Scheduling requirements. **Accordingly, the Commission Panel determines that under the terms of the New PPA there is no significant material risk of harm to BC Hydro that warrants it reasonable to continue to include the restrictions as originally provided for in sections 2.5(a)(ii), 2.5(a)(iii) and 2.5(b) of the New PPA.**

In summary, in the interest of regulatory efficiency, the Panel's preferred solution would be to immediately remove the restrictions from section 2.5 as it finds that due to the characteristics of the New PPA BC Hydro's rate payers no longer require protection, especially in the short term. However, the Panel also will conclude, for reasons addressed in the following Sections, that it may be somewhat premature as FortisBC's self-generation policies are not sufficiently developed, articulated and approved by the Commission.

9.0 SELF-GENERATION POLICY ISSUE IN THE FORTISBC SERVICE TERRITORY

9.1 Why is a Review Required?

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.

The Panel acknowledges the concerns raised by BC Hydro, FortisBC, CEC, BCPSO, Alan Wait, and BCSEA regarding the long term nature of the New PPA and the lack of clarity regarding the Self-Generation Policy Issue in the FortisBC service territory. The Panel especially recognises FortisBC position that if self-generating customers were clearly prohibited from arbitraging between embedded cost FortisBC rates and market prices in the FortisBC service territory, the proposed restrictions in section 2.5 of the New PPA would be redundant. However, FortisBC points out previous Commission rulings appear to have qualified the Self-Generation Policy Principle by reference to FortisBC's obligations under the Access Principles Application (APA).

This Panel continues to agree with the Order G-48-09 determination that extended the principles established for BC Hydro's self-generating²⁴ customers as articulated in Order G-38-01 to FortisBC. Further, the Panel still agrees that self-generating customers should not be permitted to arbitrage between embedded cost rates and market prices to the detriment of other ratepayers.

Furthermore the Panel agrees with BCMEU, BC Hydro and most of the Interveners that the appropriate place to address the FortisBC Self-Generation Policy Issue in the FortisBC territory is through a separate process. Ideally, this would be a Province-wide review – conducted either by the Government or the Commission.

²⁴ Self-generating customers are not permitted to arbitrage between embedded cost rates and market prices to the detriment of other ratepayers.

In the Reasons for Decision to Order G-48-09 the Commission stated that a more global solution to the issue of reselling or “arbitrage” of power would be preferable and that a Commission “rule” or “regulation” might have been a viable way to proceed; however for reasons stated in that Decision it was not possible at the time — this Panel determines that the right time is now.

9.2 Potential Benefits of Self-Generation

In this Decision, and many prior proceedings, the focus has been on the negative impacts to BC Hydro and its ratepayers of a self-generating customer serving its own load with embedded cost power while exporting its own self-generation. At the same time, as BCMEU has pointed out, there has been little discussion of the benefit to BC Hydro of a self-generation customer using its own self-generation to serve its own load first. Perhaps it is the time to ask what benefits there might be to the Province as a whole from an economic development perspective, if the role and responsibilities of self-generators was more clearly defined.

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. BCMEU points out 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. The Panel notes that this is recognized by most parties, and therefore, the concept of incremental generation is used to differentiate from native generation.

BCMEU submits that a clear and concise regulatory regime is needed for the parties to work with. BCMEU suggests examples of rules around self-generation for consideration:

- Defining a marker in time, after which new or renewed generation is deemed to be incremental; and
- A reasonable time period for the incremental generation to be sold on the market, to other entities, or used for serving its own load as best suits the entity building the generation (i.e. Perhaps 20 years, or 10 years after the initial capital is paid for). (Supplemental Submission, Exhibit C4-5)

The Commission would expect FortisBC to address each of these issues as part of a separate proceeding being called for.

9.3 The 1999 Access Principles

In 1998–1999, FortisBC (then West Kootenay Power) took part in a regulatory process aimed at defining the rules governing access to its transmission system. The objective at that time was to facilitate the ability of transmission level customer to purchase power from a source other than the utility, and use the transmission system to deliver it. (Order G-27-99)

In providing the right for customers to do this, the Access Principles contain rules related to:²⁵

1. when and how a customer could elect to leave or re-enter utility supply for all or part of its needs; and
2. the treatment of the utility, the customer who leaves embedded-cost service, and those customers who remain.

These sections of the Guidelines are called Re-entry and the Fair Treatment provisions respectively.

In its 2009/2010 rate design proceeding, FortisBC highlighted the concerns related to the broad use of the 1993 Access Principles. FortisBC pointed out that Order G-27-99 does not address such issues as:

1. whether an obligation to serve might be affected by self-generation by a customer;
2. the sources of power that FortisBC would have to access in serving that customer;
3. the cost of supply; or
4. the arbitrage concerns raised by BC Hydro. (FBC 2010 Rate Design Decision, p. 112)

²⁵ For further detail, see FortisBC 2012 Entitlement and Matching Guidelines Application, Appendix A, Public Consultation Materials.

Because the Commission has referred to them in a number of recent proceedings, the 1999 Access Principles, as they relate to the potential rights of a self-generating customer in the FortisBC service territory cannot be ignored. These issues need also to be resolved and should be addressed in conjunction with other self-generator policy issues.

9.4 Comprehensive Self-Generation Policy Application

Consequently, the Panel is of the opinion that the best way to resolve the FortisBC self-generation policy issue in the FortisBC service territory is for FortisBC to initiate a consultation process to establish high level principles concerning this matter. The outcome of this process would be a filing of a Comprehensive Self-Generation Policy Application with the Commission. BC Hydro, other FortisBC customer groups and other eligible groups should be encouraged to actively participate in this process.

Although FortisBC would have the discretion and judgment in determining the scope of the consultation process and the resultant application the Commission would want to ensure that (i) FortisBC determines for existing self-generating customers, how much generation must be used for self-supply, and (ii) all FortisBC's customers with idle self-generation capability are able to sell excess self-generated electricity, provided the self-generating customers do not arbitrage between embedded cost utility service and market prices.

While the first objective identified above is fairly self-explanatory, the second one could require consideration of a variety of issues. This might include:

1. Whether customers with new self-generation should be allowed to use their generation to displace their own consumption; and if so, should there be restrictions on generator type, size and/or location?
2. Stand-by rates for self-generating customers who are allowed to use their generation to offset their load.
3. Self-generating customers' access to the market.

4. Identification of any market barriers to efficient investment in self-generation which should be addressed; i.e. interconnection issues and reduction in administrative complexity.

Regardless, FortisBC must establish Self-Generating customer policies for current and future customers at distribution and transmission voltage and to address the following:

1. the potential benefits of self-generation as identified by BCMEU in its Supplemental Submission (Exhibit C4-5);
2. the 1999 Access Principles in the context of their application to self-generating customers; and
3. GBL Guidelines which address both idle historic self-generation and new self-generation, if the GBL methodology is proposed; and
4. ensure, arbitrage is not allowed.

Accordingly, FortisBC is directed to initiate a consultation process in its service territory to address or ensure:

- (i) The potential benefits of self-generation;**
- (ii) The 1999 Access Principles in the context of self-generating customers;**
- (iii) If the GBL methodology is proposed, GBL Guidelines for both idle historic self-generation and new-self-generation; and**
- (iv) Arbitrage is not allowed.**

FortisBC is further directed to file a resultant Self-Generation Policy application with the Commission by December 31, 2014 that establishes high level principles for its service territory.

Appendix G
DRAFT ORDER



ORDER NUMBER

G-xx-xx

IN THE MATTER OF
the *Utilities Commission Act*, RSBC 1996, Chapter 473

and

FortisBC Inc.
Self-Generation Policy Stage II Application

BEFORE:

Panel Chair/Commissioner
Commissioner
Commissioner

on **Date**

ORDER

WHEREAS:

- A. On January 9, 2015, FortisBC (FBC) filed a self-generation policy application with the British Columbia Utilities Commission (Commission) in compliance with Directive 5 of Order G-60-14 and Order G-67-14;
- B. On March 4, 2016, the British Columbia Utilities Commission (Commission) issued its Decision and Order G-27-16 (the SGP Stage I Decision) and directed FBC to file a Stage II Self-Generation Policy Application (the SGP Stage II Application), which includes both a comprehensive Self-Generation Policy and Generator Baseline Guidelines within 120 days of the SGP Stage I Decision;
- C. FBC engaged in public consultation regarding the SGP Stage II Application with the British Columbia Municipal Electrical Utilities, B.C. Sustainable Energy Association and Sierra Club British Columbia, British Columbia Hydro and Power Authority, British Columbia Public Interest Advocacy Centre representing the British Columbia Old Age Pensioners' Organization, Disability Alliance BC, Council of Senior Citizens' Organizations of BC, and the Tenant Resource and Advisory Centre, and Zellstoff Celgar Limited Partnership;
- D. On September 22, 2016, the Commission granted FBC an extension to the filing date of the SGP Stage II Application to November 10, 2016 to facilitate further consultation and to allow for additional time for stakeholder comments;
- E. On November 10, 2016, FBC filed its SGP Stage II Application with the Commission in compliance with Section 8 of the SGP Stage I Decision and Directive 1 of Order G-27-16, issued concurrently with the Decision;
- F. The Application sets out a comprehensive SGP and Generator Baseline Guidelines (referred to in the Application as Self-Supply Obligations or SSO);
- G. In the Application, FBC submits that it believes an adjustment to the Stand-by Billing Demand (SBBDD) remains the appropriate mechanism for a future customer that will not be making third party sales, or will

do so only after having offset its load, to receive a share of the net-benefits attributable to its self-generation;

- H. The Commission has reviewed and considered the Application and determines that the requested changes as outlined in the Application should be approved.

NOW THEREFORE the British Columbia Utilities Commission orders as follows:

1. The Self-Supply Obligations (SSO) Guidelines are approved. FBC is directed to file, confidentially, the customer data supporting the calculation of each customer's SSO for approval by the Commission, within 30 days once an SSO has been agreed upon with the customer.
2. The Stand-by Billing Demand (SBBD) is approved, with the adjustments proposed in the Application, for future customers that will not be making third party sales, or will do so only after having offset its load, to receive a share of the net-benefits attributable to its self-generation.
3. FBC is directed to file with the Commission, an Application for approval of a tariff supplement that incorporates the self-generation policies as set out in Section 4 of this Application no later than 90 days after the date of this decision.

DATED at the City of Vancouver, in the Province of British Columbia, this (XX) day of (Month Year).

BY ORDER

(X. X. last name)
Commissioner

Attachment (Yes? No?)