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April 21, 2017

British Columbia Utilities Commission
Sixth Floor
900 Howe Street
Vancouver, B.C.
V6Z 2N3

Attention: Mr. Patrick Wruck, Commission Secretary and Manager, Regulatory Support

Dear Mr. Wruck:

Re: FortisBC Inc. (FBC)
Self- Generation Policy Stage II Application (the Application)
Response to the British Columbia Utilities Commission (BCUC or the Commission) Information Request (IR) No. 1

On November 10, 2016, FBC filed the Application referenced above. In accordance with Commission Order G-14-17 setting out the Regulatory Timetable for the review of the Application, FBC respectfully submits the attached response to BCUC IR No. 1.

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

Sincerely,

FORTISBC INC.

Original signed:

Diane Roy

Attachments

cc (email only): Registered Parties

FortisBC Inc. (FBC or the Company) FBC Self-Generation Policy Stage II Application (the Application)	Submission Date: April 21, 2017
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1 **1.0 Reference: SELF-GENERATION POLICY STATEMENT**

2 **FortisBC Inc. 2016 Self-Generation Policy Stage I Application, Order**
3 **G-27-16 and Decision dated March 4, 2016 (Stage I Decision), pp. 13,**
4 **52–53**

5 Page 13 of the Stage I Decision directs FortisBC Inc. (FBC) to “include a standalone
6 comprehensive Fortis SGP [Self-Generation Policy] as part of the Stage II filing in
7 addition to the GBL Guidelines Application.” The Stage I Decision expands on this
8 directive, listing on pages 52 to 53, thirteen elements that the standalone SGP must
9 address (reproduced in Appendix A to this IR, numbered 1 to 13).

10 The current application contains a number of statements that could be considered to
11 constitute components of an SGP. However, in the absence of a consolidated, unified
12 statement of the entire SGP, it becomes a matter of interpretation as to what specifically
13 constitutes as FBC’s entire SGP; hence, difficult to evaluate how it addresses the
14 thirteen elements.

15 1.1 Please provide FBC’s standalone SGP as directed in the Stage I Decision.

16

17 **Response:**

18

19 In its November 10, 2016 Self-Generation Policy Stage II Application, the Company’s intention
20 was to provide a full discussion of all of the elements that would constitute its policies regarding
21 self-generation in consideration of, and in compliance with the requirements that were
22 summarized on page 52 of the Stage 1 Decision and included in Order G-27-16 as constituting
23 “a comprehensive Self-Generation policy and Generator Baseline Guidelines”. In reviewing the
24 Stage 1 Decision, FBC now notes the reference on page 13 to a “standalone comprehensive
25 Fortis SGP” which had previously been overlooked. FBC provides this now as Attachment 1.1
26 to these IR responses – FortisBC Inc. Policies Regarding Self-Generating Customers.

27

28

29

30

31 1.2 Please provide an accompanying discussion that explains if/how each of the
32 thirteen elements has been addressed in the standalone SGP filed pursuant to IR

33

34 **Response:**

35

36 The following is a discussion on the thirteen elements in the order they appear in Attachment
37 1.1 to BCUC IR 1.1.1.

38

FortisBC Inc. (FBC or the Company) FBC Self-Generation Policy Stage II Application (the Application)	Submission Date: April 21, 2017
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1 **1. Apply to both current and future customers;**

2 The FBC SGP has been structured such that all customers that meet the SGP eligibility
3 requirements have equal access and treatment. Moreover, Section 1 of the SGP, the
4 Overview, makes it clear that it is applicable to both, "...customers or prospective
5 customers...". There is no eligibility distinction within the FBC SGP between current and
6 future customers, either in terms of load or generation.
7

8 **2. Identify how long the policy will be in place and how often it will be reviewed or
9 updated;**

10 The Company expects that once in place, the SGP will persist as a standard means of
11 interacting with customers unless a review is established as part of a wider rate design
12 exercise or at the request of the Company, a customer, or the Commission. Except in
13 the case of a pilot program or rate, there is not typically a pre-set timeframe for the
14 expiry or review of a FBC policy and FBC has not included one in this policy either. As
15 with any new program or policy, FBC will monitor and review how well the SGP is
16 working in actual situations and would take steps to amend it should any deficiencies be
17 identified.
18

19 **3. Establish policies that outline the circumstances under which [FBC] will do
20 nothing, remove barriers or incent self-generation;**

21 The SGP establishes the circumstances under which FBC will either negotiate a Self-
22 Supply Obligation or reduce the Stand-by Billing Demand with a self-generating
23 customer, and discusses the purchase of self-generated power where it is a cost-
24 effective alternative for FBC.¹ The FBC SGP is written such that the treatment of self-
25 generators under various scenarios is clarified under a single policy rather than a
26 separate policy for each scenario.
27

28 The recognition and sharing of the net-benefits of self-generation through the Self-Supply
29 Obligation determination process or the setting of the Stand-by Billing Demand provides
30 any self-generator with an enhanced opportunity to realize a greater return on its
31 investment relative to the current situation, and does so without unreasonably impacting
32 other customers. This fact can be viewed as either the removal of an economic barrier
33 or an incentive.
34

35 These opportunities are equally available to all current and prospective self-generating
36 customers that use, or intend to use a clean or renewable resource. FBC will only "do

¹ The Self-Supply Obligation and SBBDD Determination guidelines are attached to the SGP as Appendices A and B respectively.

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1 nothing” where a customer declines to take advantage of one of the options available to
2 it.

3
4 FBC does not believe that access to its system for the purpose of wheeling is a
5 significant barrier to self-generation as the process is well established utilizing a
6 standard and Commission-approved tariff supplement, and is subject to rates that are
7 also subject to Commission approval and which have in fact already been found to be
8 just and reasonable in previous Commission processes.

9
10 FBC considers that where the investment in self-generation is cost-effective to the
11 customer (which is more likely given the proposed FBC SGP relative to the status quo) it
12 is likely that the customer will make the rational economic decision, and where it is cost-
13 effective for FBC to consider the purchase of the self-generation output it will do so.

14
15 **4. Establish policies that assist in mitigating barriers to cost-effective clean self-**
16 **generation;**

17 Please refer to the discussion of Element 3 above.

18
19 **5. Establish a policy that defines how the net benefits of self-generation are**
20 **measured. The filing needs to include an analysis of alternate methods of**
21 **measuring the long-term benefits of self-generation including, at a minimum,**
22 **consideration of: (i) the LRMC used by BC Hydro; (ii) the LRMC used in the DSM**
23 **Regulation; and (iii) [FBC]’s updated LRMC that is expected to be filed as part of**
24 **its next Long Term Electric Resources Plan (due to be filed by June 30, 2016);**

25 FBC provided a discussion of Element 5, including an analysis of the various LRMC
26 measures in its Stage II SGP Application at Section 4.1.3, and with respect to the
27 potential purchase of self-generation output in Section 5. The proposed SGP does not
28 rely on any LRMC determination in the measurement of the net benefits of self-
29 generation for customers utilizing an SSO, but for setting the appropriate SBB, uses a
30 LRMC that reflects the avoided costs to the utility (and hence) the remaining ratepayers.
31 Until the LTERP process, which is before the Commission concurrently with this
32 process, is concluded, the precise figure will not be known. In the interim, the value
33 discussed in the SGP Stage II Application in Section 4.1.3.1 appears in the SBB
34 determination materials in Appendix A to the SGP provided in Attachment 1.1.

35
36 **6. Establish separate policies for customers that intend to use self-generation to off-**
37 **set load and policies related to customers who intend to export self-generation;**

38 The FBC SGP, in Section 8, establishes a policy for customers that intend to use self-
39 generation to offset load and policies related to customers who intend to export self-

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1 generation. For self-generators that intend to export, two scenarios are possible – sales
2 of power that is not in excess of load (Section 8.1), and sales only after plant load has
3 been offset (Section 8.2). It is the establishment of what the self-generator intends to do
4 with its self-generation output that drives the entire SGP. The SGP that FBC has
5 proposed is focussed on this determination and treats each scenario appropriately. The
6 SGP is a single policy that treats customers differently depending on what they intend to
7 do with their generation output, but the end result is the same. Further, the SGP has
8 provisions to deal with situations where (a) customers wish to use self-generation to off-
9 set load but are not exporting any self-generation; and (b) customers wish to export self-
10 generation but only after off-setting their full load.

11
12 The SGP addresses barriers to self-generation as discussed in Element 3 above,
13 however FBC respectfully submits that the SGP should be confined to providing
14 information on how self-generators are treated within the FBC service area. The
15 identification of potential risks and an assessment of the materiality of those risks is a
16 concern of both the Customer and FBC, and FBC does identify risks and barriers to the
17 extent that it is able, and these can be mitigated or removed through following the SGP.
18

- 19 **7. Establish policies that address: (a) customers that wish to use self-generation to**
20 **off-set load but are not exporting any self-generation; and (b) customers that wish**
21 **to export self-generation but only after off-setting their full load. The policies**
22 **should identify any material risks or barriers to such activities and include**
23 **policies on how those risks can be mitigated and barriers removed;**

24 Please refer to the discussion of Element 6 above.
25

- 26 **8. Address restrictions on generator type taking into consideration the applicable**
27 **sections of the CEA and the BC Energy Plan for self-generating customers off-**
28 **setting load as well as exporting;**

29 Section 2 of the SGP defines Eligible Technologies for the purpose of the SGP, as
30 resources that are clean or renewable as defined by the Clean Energy Act and
31 regulations as may be amended from time to time.
32

- 33 **9. Include policies that address both exporting to a third party, and exporting to**
34 **[FBC];**

35 FBC has structured its SGP to have individual policy areas address multiple scenarios.
36 Both exporting to a third party and exporting to FBC are covered by the SGP however
37 exporting to a third party will require wheeling which is covered in the SGP, Section 5,
38 while sales to FBC are covered in the SGP in Section 6.
39

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1 **10. Establish a policy that defines how [FBC] measures cost-effectiveness when**
2 **evaluating a potential long term energy purchase contracts with a self-generation**
3 **customers;**

4 FBC will use standard LTERP considerations when evaluating purchase decisions. The
5 purchase by FBC of self-generator output is covered in the SGP in Section 6 where it is
6 stated that the purchase of any self-generation output by FBC will be looked at on a
7 case-by-case basis just as FBC would consider a new source of supply from any other
8 resource.

10 **11. Establish a policy that sets out criteria that will use when comparing a potential**
11 **long term energy purchase contracts with a self-generation customers against**
12 **other available resource options;**

13 Please refer to the discussion of Element 10 above.

15 **12. Identify any tariffs, agreements, rate schedules, interconnection issues,**
16 **transmission access issues and any business practices necessary to facilitate**
17 **such exporting to a third party or to [FBC]; and**

18 FBC has identified in the SGP Section 4, a list of supporting documents that a self-
19 generator or prospective self-generator should review when evaluating a self-generation
20 and/or export opportunity.

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

27 **13. Include a policy statement that clarifies the role of the net-of-load restriction under**
28 **a GBL construct.**

29 The net-of-load restriction is discussed at length in the Stage II Application Section 3.
30 For the purpose of the final SGP, the net-of-load restriction is summarized in Section 3
31 of the SGP.

32
33
34
35
36 1.2.1 If addressed, please identify where in the standalone SGP and how the
37 element is addressed.



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1 **Response:**

2 Please refer to the response to BCUC IR 1.1.2.

3
4
5
6

7 1.2.2 If not addressed and/or not fully addressed in the standalone SGP,
8 please explain why.

9 **Response:**

10

11 Please refer to the response to BCUC IR 1.1.2.

12
13
14
15

16 1.3 Please provide additional discussion that identifies any key underlying
17 assumptions upon which the SGP rests.

18

19 **Response:**

20

21 The key context in which FBC has proceeded in formulating the SGP is the set of BCUC
22 determinations and directions made on the issue to date. Principles that have emerged through
23 those determinations and directions include that:

- 24 1. Under the appropriate circumstances, a self-generating customer should be able to sell
25 self-generated power that would otherwise be used to serve plant load;
- 26 2. While doing so the customer can replace this power with purchases from FBC at
27 embedded cost rates; and
- 28 3. Such purchases would be enabled by the establishment of a baseline amount of load
29 that the SG customer must serve, which serves to mitigate the potential for harm to other
30 customers.

31 FBC has expressed concerns in the past about certain of these principles and their implications
32 (including a potential increase in the cost of resources used to supply customers in general and
33 the possibility of stranded assets resulting from the reduction in historical customer load). In the
34 opinion of FBC, while the baseline (or SSO) serves to mitigate harm to other customers by
35 placing a limit on the amount of power that may be exported, it still introduces the risk of harm
36 relative to the status quo. FBC does not believe more can be done in the SGP to address this
37 issue reasonably; rather, it is inherent in the concept.



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1 However, an assumption of FBC is that these prior determinations and directions will not be
2 revisited in this proceeding. As such, FBC is not re-arguing those prior issues in the SGP or in
3 the application.

4 A further assumption that FBC has made is that it will not be placed in the position where it must
5 furnish electricity to support those exports while placing its own embedded cost supply at risk.
6 FBC does not believe it would be appropriate that the SGP be approved in such a manner that
7 the SSO construct is approved as an acceptable mechanism to mitigate the risk of harm to
8 customers, and still leave with BC Hydro an avenue to impose the restrictions contained in
9 Section 2.5 of its PPA with FBC.

10

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1 **2.0 Reference: SECTION 2.5 CONCERNS**

2 **FortisBC Inc. Stage I Decision, p. 55**

3 The Stage I Decision states on page 55:

4 The Panel set out as part of its Framework for Evaluation that one of the main
5 objectives of [FBC's] SGP is the eventual removal of the Section 2.5 Restrictions.
6 [...]

7 The Panel is optimistic that the directives and guidance provided in this Stage I
8 Decision will provide enough clarity so as to remove BC Hydro's concerns [that
9 FBC's SPG will increase cost to BC Hydro's ratepayers]. Nevertheless, the Panel
10 expects that BC Hydro's position on FortisBC's SGP and GBL Guidelines will be
11 addressed through its intervention in the Stage II filing.

12 2.1 Please provide a discussion on whether the standalone SGP filed in response to
13 IR 1.1 includes, as a main objective, the eventual removal of the Section 2.5
14 Restrictions. If yes, please explain how the standalone SGP meets this objective.
15 If not addressed and/or not fully addressed in the standalone SGP, please
16 explain why.

17
18 **Response:**

19 In the view of FBC, the eventual removal of the restrictions contained in Section 2.5 of the FBC-
20 BC Hydro PPA is a stated Commission objective that can be achieved by FBC having an SGP
21 that clarifies the treatment of self-generators in the FBC service area.

22 It is not necessary, and would in fact be atypical in a policy document, that once approved, the
23 SGP would include as a stated objective one of the reasons that putting such a policy in place
24 was considered necessary.

25 In other words, whether or not the approved policy is adequate for the removal of the Section
26 2.5 Restrictions is a separate matter for consideration, but not part of the SGP itself, and none
27 of the elements of the SGP would be invalidated by the result.

28 FBC has formulated the SSO Guidelines in order to mitigate the risk to other customers, (though
29 as discussed in the response to IR 1.3 above, some level of risk remains). The SSO construct is
30 intended to provide sufficient support for the removal of the restrictions imposed by Section 2.5
31 as preferred by the Commission.

32 If the Section 2.5 Restrictions are not removed, then FBC will seek confirmation from the
33 Commission that it considers that the SSO Guidelines provide protection for both the customers
34 of FBC and BC Hydro such that the provision of an SSO to an FBC customer does not result in
35 BC Hydro attempting to invoke the Section 2.5 Restrictions with respect to its service to FBC.

Attachment 1.1



FORTISBC INC.

**Policies Regarding
Self-Generating Customers**

April, 2017

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1. OVERVIEW

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

The SGP does not apply to customers enrolled in the Company's Net Metering Program or interconnected generation that is not associated with a customer load (independent power producers or IPPs), or any other customer with interconnected generation that is not an Eligible Customer as defined in this document.

2. ELIGIBILITY REQUIREMENTS

This SGP is applicable to Eligible Customers with Self-Generation from Eligible Technologies, all as defined below.

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

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

Customer-owned generation that does not meet the definition of a clean or renewable resource may still be connected to the FBC system but is not eligible for treatment in accordance with the SGP.

Self-Generation – Within the context of the SGP, means the customer-owned generation facilities of Eligible Customers, which are located on the customer side of the interconnection point with FBC.

3. DEFINITIONS AND KEY CONCEPTS

Net-of-Load (NOL) Service – A self-generating customer is served on a NOL basis when, prior to making any self-generation output available for sale to a third party, it supplies its entire plant load from its own generation facilities. NOL is the default mode of service for utility customers except for those self-generators that are operating with a British Columbia Utilities Commission (Commission) approved Self Supply Obligation (SSO).

1 **Self-Supply Obligation (SSO)** – the SSO demarks the amount of electricity that the customer
2 must generate for self-supply prior to using any self-generation for another purpose.

3 **Third Party** - Third parties may include FBC, British Columbia Hydro and Power Authority (BC
4 Hydro), or another entity within or outside of B.C.

5 **4. SUPPORTING DOCUMENTATION**

6 In addition to being an Eligible Customer and utilizing an Eligible Technology, customers that
7 intend to apply for treatment under the SGP must also comply with:

- 8 • FBC Electric Tariff No. 2 Terms and Conditions (the FBC Tariff), in particular Section 10
9 customer-Owned Generation; and
- 10 • FBC Facility Connection Requirements.
- 11 • Where the transmission system of FBC will be used for exports, Tariff Supplement No. 7.

12 Current versions of these documents are available on the FortisBC.com website.

- 13 • Where an existing customer is already utilizing any of the services referred to in these
14 documents, it is assumed that the customer has undergone and satisfied the required
15 reviews and there is no need to reapply.

16 **5. USES OF FBC TRANSMISSION INFRASTRUCTURE**

17 A self-generator that intends to sell any portion of its self-generation output to a Third Party
18 other than FBC will require the use of FBC transmission infrastructure and in the case of a
19 distribution-connected customer, both the transmission and distribution infrastructure.

20 Use of the FBC system by a party other than FBC (known as “wheeling”) requires that a
21 separate application be made pursuant to the Transmission Access Terms and Conditions –
22 Tariff Supplement No.7, following the process described on the FBC website, Transmission
23 Services homepage located at the following web address:.

24 <https://www.fortisbc.com/Electricity/CustomerService/TransmissionServices/Pages/default.aspx>

25 **6. SALE AND PURCHASE OF POWER**

26 **6.1 PURCHASES BY A THIRD PARTY OTHER THAN FBC**

27 Arrangements for the sale of self-generation output to a third party other than FBC are the sole
28 responsibility of the self-generator. FBC will work with the self-generator to facilitate the
29 transmission of power in accordance with the discussion in Section 5 of this document.

1 **6.2 PURCHASES BY FBC**

2 The purchase of any self-generation output by FBC will be reviewed on a case-by-case basis
3 just as FBC would consider a new source of supply from any other resource.

4 When assessing the value of self-generation supply, FBC will consider relevant criteria in terms
5 of meeting its Load-Resource Balance (LRB) requirements and its Long Term Electric Resource
6 Plan (LTERP) objectives, as it does with other supply-side resource options. These include the
7 energy and capacity profile (i.e. when and where is the electricity to be provided to FBC during
8 each month of the year), adherence to provincial energy and environmental policy and cost
9 effectiveness. In addition, while the LTERP considers a broad range of resources, resources to
10 which the SGP applies, as stated above, must also meet the definition of Eligible Technologies.

11 FBC will assess any self-generation supply that is brought forward in light of FBC's resource
12 planning requirements as discussed above. In order for the self-generating customer to
13 incorporate this assessment into its decision, it should approach FBC early in the planning
14 process such that the resource can be examined in light of other supply options available.

15 **6.3 UNSCHEDULED DELIVERIES TO FBC**

16 From time to time, a self-generator that is served on a NOL basis may have excess energy that
17 is delivered to the FBC system without also having a scheduled delivery to another third party.
18 By prior agreement, and under the terms of an energy purchase agreement, FBC will absorb the
19 energy and compensate the self-generator at a standard purchase price. The rate that will be
20 applied to such unscheduled purchases will be reflective of the energy's avoided cost value as
21 determined by FBC at that time.

22 This rate is equal to the lesser of the Tranche 1 Energy Price set out in Rate Schedule (RS)
23 3808 as of January 1 in the calendar year in which the unscheduled delivery is made and the
24 ICE Mid-C Day-Ahead Index Price, less 2 mils, using the heavy load index for Heavy Load
25 Hours and the light load index for Light Load Hours.¹

26 **7. NET-BENEFITS OF SELF-GENERATION**

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

31 The FBC SGP is designed to recognize the net-benefits of self-generation, which are shared on
32 an equitable basis between the self-generator and the other customers of FBC.

¹ "Heavy Load Hours" means hours ending 0700 through 2200 Pacific prevailing time, Monday through Saturday and excluding NERC holidays. "Light Load Hours" means (i) hours ending 0100 through 0600 Pacific prevailing time and hours ending 2300 through 2400, Monday through Saturday, and (ii) all hours on Sundays and NERC holidays.

1 The assumed net-benefits of self-generation are reflected for certain customers in the
2 determination of the SSO as discussed in Section 8.1, and for certain other customers in the
3 determination of the Stand-By Billing Demand (SBBB) as discussed in Section 8.2.

4 The net-benefits are reflected in their entirety in either the SSO or SBBB and a customer may
5 not simultaneously take advantage of both.

6 **8. PROPOSED USES OF SELF-GENERATION**

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

13 **8.1 CUSTOMERS WITH THIRD PARTY SALES OF SELF-GENERATION NOT IN** 14 **EXCESS OF LOAD**

15 **8.1.1 Description**

16 A self-generator that intends to engage in third party sales of self-generation, not in excess of
17 load, will be purchasing power from FBC to serve plant load at the same time that it is selling
18 power that, in the absence of a contractual agreement, would otherwise be consumed by the
19 customer's plant. For example, in a given hour, assume that self-generation output is 10 MW
20 and plant load is also 10 MW. If the self-generator chooses to meet its load with 8 MW of self-
21 generation and 2 MW purchased from FBC, the 2 MW of self-generation that would otherwise
22 have served the plant load could, by agreement with FBC and prior Commission approval, be
23 made available for sale to a third party.

24 **8.1.2 Process**

25 A self-generator that intends to engage in third party sales of self-generation not in excess of
26 load can do so only through the establishment of an SSO, determined in accordance with the
27 Company's SSO Guidelines Tariff Supplement².

² Exhibit B-1, Appendix A – SSO Tariff Supplement.

1 **8.2 CUSTOMERS THAT OFF-SET PLANT LOAD (WITH OR WITHOUT THIRD PARTY**
2 **SALES)**

3 **8.2.1 Description**

4 A self-generator that intends to engage in third party sales of self-generation, but only after self-
5 supplying its entire plant load, will not be routinely purchasing power from FBC. Such a
6 customer may elect to purchase Back-Up and Maintenance Service (RS 37) from FBC in order
7 to ensure uninterrupted plant operation in the event that self-generation is inoperable. For
8 example, in a given hour, assume that self-generation output is 12 MW and plant load is 10
9 MW. Where the self-generator chooses to meet its load with 10 MW of self-generation, 2 MW
10 can be made available for sale to a third party.

11 Since there are no third party sales of self-generation which are not in excess of load, an SSO is
12 not required.

13 **8.2.2 Self-Generators Utilizing RS 37**

14 RS 37 is FBC's Stand-by, Back-Up and Maintenance Service, intended to provide the self-
15 generator with a firm supply of electric power and energy when its generating facilities are not in
16 operation or are operating at less than full rated capability.

17 RS 37 is available only to those self-generators that normally supply all or some portion of load
18 from self-generation and is strictly for the continued operation of customer facilities at times
19 when the Customer-owned generation is unavailable.

20 RS 37 cannot be used by the customer in the fulfilment of any power sales obligation.

21 The use of RS 37 requires the establishment of both a SBBD, and a Stand-by Demand Limit
22 (SBDL). Both the SBBD and the SBDL are set either through agreement between the self-
23 generator and FBC, or in the absence of agreement, by the Commission. A detailed discussion
24 of billing under RS 37 is contained in that section of the FBC Electric Tariff No. 2.

25 The net benefits of self-generation are taken into account when a customer's SBBD is
26 determined. This process requires an assessment of the value of "load not served" due to the
27 presence of self-generation, which, at a high level is equal to the difference between the
28 foregone revenue from serving the full load of the customer and the marginal cost of serving
29 that incremental load.

30 Details of the calculation of the SBBD incorporating the net-benefits of self-generation are
31 provided in Appendix B.

32 **8.2.3 Self-Generators Not Utilizing RS 37 or an SSO**

33 Where a self-generator chooses to be served on a NOL basis and does not elect to be on the
34 Stand-by rate, it will receive no recognition of any benefits that it may provide and is simply

1 billed as per either RS 30 or RS 31 as applicable. The customer retains the option to participate
2 in the SSO and SBBB mechanisms, should it wish to do so at some point in the future.

3 **9. PROCESS FOR INITIATING SERVICE UNDER THE SGP**

4 A self-generator that intends to pursue service utilizing any aspect of the SGP, including SSO
5 determination or use of Stand-by Service, should contact the FBC Key Account Manager
6 responsible for administering the customer's account.

7 A new customer that has not had a Key Account Manager assigned should contact FBC at
8 1-866-436-7847.

9

Appendix A

**SELF-SUPPLY OBLIGATION GUIDELINES
(DRAFT)**

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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FORTISBC INC.

**Policies Regarding
Self-Generating Customers**

**Appendix B
Calculation of Stand-By Billing Demand**

1 Customers that install self-generation may provide either benefit(s) or cost(s) to the utility
2 system and/or its operation. The sum of these benefits and costs is referred to as the “net-
3 benefits” of self-generation. The manner in which FBC recognizes the net-benefits that may be
4 provided by a self-generator depends on the type of service contracted by the customer.

5 This document pertains to those customers who elect to take service under the Company’s
6 Stand-By Rate (RS 37), and describes how any net benefits of self-generation will be
7 recognized through a reduction in their Stand-By Billing Demand (SBBB). This results in a direct
8 reduction in the fixed charges that are billed to the customer each billing period under RS 30 or
9 RS 31.

10 In order to use a reduction in a customer’s SBBB to reflect the net benefits of self-generation,
11 an assessment of the value of “load not served” due to the presence of self-generation is
12 required. At a high level, the value of “load not served” is equal to the difference between the
13 foregone revenue from serving less than the full load of the customer and the avoided cost of
14 not serving that incremental load, valued at an appropriate measure of long-run marginal cost
15 (LRMC).

16 The reduction in the SBBB is a five-step process as set out below:

- 17 1. Determine the appropriate per kWh LRMC value of self-generating customer *load-not-*
18 *served*;
- 19 2. Determine a blended per kWh rate for the revenue foregone by not serving the full
20 customer load;
- 21 3. Multiply any positive difference of the values derived in Steps 1 and 2 by the amount
22 (kWh) of *load-not-served* due the presence of the customer self-generation;
- 23 4. Reflect the 50% sharing of net-benefits by multiplying the result of Step 3 by 50%; and
- 24 5. Translate this value into a KVA reduction in the SBBB.

25
26 Steps 1 and 2 are described in more detail below, followed by an example which demonstrates
27 the overall five-step process.

28 **Step 1 – Determine the Long-Run Marginal Cost**

29 An appropriate LRMC for setting rates, including the SBBB Reduction, must reflect the avoided
30 costs to the utility, and hence ratepayers.

31 FBC uses the value for LRMC that has been accepted as part of the Company’s most recently
32 accepted Long Term Electric Resource Planning (LTERP).

33 **Step 2 – Determine the Blended Customer Rate**

34 In order to properly evaluate the overall proxy value to FBC’s other customers of the *load-not-*
35 *served*, the Company establishes a per unit value for the foregone revenue to be subtracted
36 from the appropriate LRMC per unit value as determined in Step 1.

1 The foregone revenue rate is calculated as a blended value. The blended revenue rate is equal
2 to the total demand and energy charges divided by the kWh total plant consumption over a 12-
3 month calendar year under the assumption that FBC served the entire plant load (i.e., the
4 customer has no self-generation). Similar to the timeframe chosen for the setting of an SSO,
5 the Company will review load data from the previous year in performing this calculation.

6 To be consistent with the calculation of the LRMC in FBC's LTERP which forms the basis for
7 Step 1 of the calculation, the rates used in the calculation of the foregone revenue rate are
8 levelized over the same time period as the LRMC is calculated utilizing a 6% discount rate,
9 which is the Company's current weighted average cost of capital.

10 **Example of an SBBB Reduction**

11 In the following example, rates are assumed to rise at 1.4% per annum above inflation, using a
12 2% inflation factor. Also, for simplicity, customer load is assumed to be flat with the same peak
13 demand in each one-month billing period. In practice, the Company will work with the self-
14 generating customer to determine an expected load shape that represents the best reasonable
15 forecast of the customer's actual load.

16 **Table 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
i = a*e*12	Power Supply Charges	\$ 390,812
j = f*b	Energy Charges	\$ 4,043,599
k=h+i+j	Total Revenue	\$ 5,129,189
l = k/b	Blended Rate	\$ 0.078
Step 3: Value of Load-not-Served		
m=g-l	Per Unit Value of Load-Not Served (LRMC minus Blended Rate)	\$ 0.007
n=c*m	(Per unit value x Previous Year Self-Generation Used to Serve Load)	\$ 296,892
Step 4: Sharing of Net-Benefit		
o=n*0.5	Sharing @ 50%	\$ 148,446
Step 5: Calculate SBBB Reduction		
p=o/d	Monthly SBBB Reduction (kVA)	2200

17

APPENDIX B

CALCULATION OF STAND-BY BILLING DEMAND



1 Note that in the example, the base year rates (items d, e, and f) are the FBC RS 31 rates that
2 have been levelized over a 20-year term, and the resulting SBBB reduction has been rounded
3 down to the nearest 100 kVA figure. The reduction is calculated by dividing the shared net-
4 benefit by the levelized per-kVA Wires Charge Rate.

5 Prior to the SBBB reduction, which is based on a 50-50 sharing of assumed net-benefits of self-
6 generation, the SBBB is 100% of the Stand-by Demand Limit. In this example, assuming that
7 the customer had a generation capacity of 5 MVA, which is below its plant load, its
8 undiscounted SBBB would typically also be 5 MVA. The calculated reduction in the SBBB
9 would result in a new SBBB of 2,800 kVA (5,000 kVa less 2,200 kVa), or a reduction of 44%.