British Columbia Utilities Commission

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March 4, 2016

Ms. Diane Roy
Director, Regulatory Services
FortisBC
16705 Fraser Highway
Surrey, BC V4N 0E8

Dear: Ms. Roy:

Re: FortisBC Inc.
Self-Generation Policy Application

Enclosed please find the Commission's Stage I Decision on your January 9, 2015 application on the above noted matter.

Yours truly,

L Ross.

Laurel Ross

CM/dg
Enclosure
cc: Registered Interveners

British Columbia Utilities Commission

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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EXECUTIVE SUMMARY

By Order G-60-14 and the decision issued concurrently, dated May 6, 2014, the British Commission 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 3808[1] (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 Demand[2] 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.

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[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.

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[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).

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[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 submissions[12] 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 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.

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[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

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[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) arbitrage 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.

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[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.

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[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.

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[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.

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[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

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[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 SBBD 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 (SBBD), 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 SBBD 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 SBBD 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 SBBD 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, SBBD 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 SBBD 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]

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[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 LRMC 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 LRMC and if the purchase price of self-generation is lower than the LRMC of clean energy resources in BC, then it is considered to be cost-effective.

Assessing cost-effectiveness against the 'LRMC 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 LRMC from clean or renewable resources.[59] Further, one of the DSM tests is the Rate Impact Measure

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[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 impact[61] 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

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[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 intervener 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 SBBD. 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.

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[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]

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[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 ensure 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.

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[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 safeguards 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-38-01[76] 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

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[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 Application[90], 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.

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[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]

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[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 II[98] (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]

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[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

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[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]

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[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.

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[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 SBBD. 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 SBBD 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]

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[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.

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[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]

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[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 customers[138]. 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

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[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]

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[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

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[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 though 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.

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[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

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[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]

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[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.

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[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 the 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 is 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 circumstance 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

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[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 treats 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.

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[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

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[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 (though DSM programs) market barriers to energy efficiency investment and consumption decisions of its industrial customers.[195]

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[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

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[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.

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[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 policy 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 SBBD, 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.

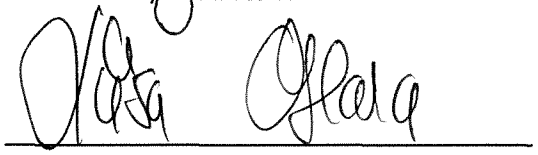
However, the Panel is optimistic that the directives and guidance provided in this Stage I Decision will provide enough clarity so as to remove BC Hydro's concerns. Nevertheless, the Panel expects that BC Hydro's position on FortisBC's SGP and GBL Guidelines will be addressed through its intervention 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.

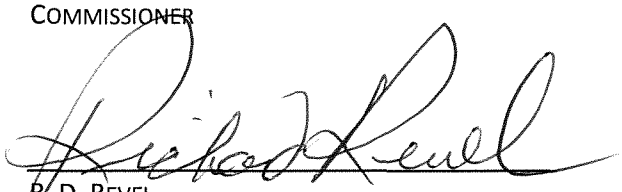
[206] Exhibit B-7, paras. 120, 122, 125.

DATED at the City of Vancouver, in the Province of British Columbia, this 4th day of March 2016.

B. A. MAGNAN
PANEL CHAIR / COMMISSIONER



L. A. O'HARA
COMMISSIONER



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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;

.../2

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

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	*Clean Energy Act*
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	*Utilities Commission Act*