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IN THE MATTER OF AN ARBITRATION UNDER CHAPTER ELEVEN OF THE NORTH AMERICAN FREE TRADE AGREEMENT AND THE ICSID ARBITRATION (ADDITIONAL FACILITY) RULES

BETWEEN:

MERCER INTERNATIONAL INC.

Claimant

AND:

GOVERNMENT OF CANADA

Respondent

WITNESS STATEMENT OF LESTER DYCK

CONTENTS

I, Lester Dyck, declare as follows:

1. I was born on [redacted]. I presently reside at [redacted].

2. I am the Sector Manager of Pulp & Paper and Customer Generation in the Key Accounts Management division (the "KAM division") of the British Columbia Hydro and Power Authority ("BC Hydro"), a role that I will describe in more detail below.

3. I joined BC Hydro as a Key Accounts Manager in 1997, a position I held until 2007. In this role, I managed BC Hydro's relationships with large industrial customers on issues concerning energy management, billing adjustments and disputes, and outage coordination. For example, if an industrial customer was considering a project to improve energy efficiency or reduce energy consumption, I would work with the customer on behalf of BC Hydro to encourage such projects by providing technical expertise or support for customer studies. If the customer wished to self-fund the project, I would work with the customer on the rate and tariff implications relevant to their financial analysis. If the customer wished to apply to BC Hydro for a demand-side management ("DSM") incentive,[1] I would work with the customer to ensure that their studies and application were complete and met the requirements of BC Hydro's Power Smart group.[2] On a yearly basis, I would review or consult on dozens of such customer studies and project proposals. As a Key Accounts Manager, I also oversaw projects relating to customer-based generation.[3] For example, I was the primary customer contact and the project lead on BC Hydro's first load displacement project initiatives in the early 2000's.[4]

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[1] A DSM incentive is a tool to encourage customer projects that achieve greater energy efficiency or reduced energy consumption by providing partial or full funding for the project. An example of a DSM incentive is funding for lighting retrofits or funding for an energy expert to consult on energy efficiency measures. For more information, see BC Hydro, Power Smart Business Industrial Programs & Incentives, online: <www.bchydro.com/powersmart/business/industrial/programs_incentives.html>.

[2] Power Smart is the group within BC Hydro that designs and manages DSM programs, tools and initiatives.

[3] "Customer-based generation" means the same thing as "self-generation facilities".

[4] Load displacement is a DSM tool that is used to decrease the amount of energy that customers require from BC Hydro, alleviating the demand on the BC Hydro system. I will discuss this in more detail in paragraphs 19 and 28 below.

4. Starting in 2007, I managed BC Hydro's Transmission Interconnections group, which oversees interconnections for new transmission service customer[5] loads and generators, as well as changes by existing customers and generators that could impact the BC Hydro system. An interconnection is the physical point at which the electric system of a transmission service customer or a generator is connected to BC Hydro's electric system. I managed the Transmission Interconnections group until 2010.

5. In 2007, I also assumed my current position of Sector Manager of Pulp & Paper and Customer Generation. In this role, I manage a team of Key Accounts Managers in the KAM division, including those that work with pulp and paper customers. The Key Accounts Managers under my supervision consult me on various issues relating to the customers over which they have charge, and I continue to maintain relationships with BC Hydro's large industrial customers.

6. As many customers in the Pulp and Paper Sector have the capacity to generate electricity as a by-product of their primary pulp and paper operations, my responsibilities as Sector Manager continue to include oversight of customer-based generation. For example, I provide input into certain aspects of the negotiation and conclusion of Electricity Purchase Agreements ("EPAs") and Load Displacement Agreements ("LDAs"). In particular, I was the Sector Manager that oversaw the annual generator baseline ("GBL") component of BC Hydro's procurement of electricity under its Bioenergy Call for Power Phase I ("Bio Phase I"). I oversaw the same in BC Hydro's subsequent bilateral EPA agreements and the EPAs offered under the Integrated Power Offer ("IPO").

[5] BC Hydro's transmission service rate customers are those customers connected to BC Hydro's transmission system that are served at voltages of greater than 60,000 volts. These are generally large industrial customers such as pulp and paper mills and mines. *See* BC Hydro Rate Schedules 1823, 1825, 1827, 1852, 1880 and Tariff Supplement No. 5 (Electricity Supply Agreement). B.C. Hydro Electric Tariff Supplement No. 5, Agreement for Customers Taking Electricity Under Schedule 1821, Accepted for Filing by BCUC, 27 November 1998 (BCUC Order No. G-89-1998), online: < https://www.bchydro.com/about/planning_regulatory/tariff_filings.html> ("TS No. 5"), **R-122**.

7. In light of my experience, I have been called on several times by the Power Acquisitions group[6] at BC Hydro to help plan and negotiate new deals with customers or to amend existing contracts related to customer-based generation. I have also facilitated, and been the primary point of contact within BC Hydro for, several customer-based generator upgrade projects, steam efficiency projects, boiler issues, and the resulting Electricity Supply Agreement ("ESA"),[7] billing, regulatory, and contract management issues. I am often asked by the Regulatory and Rates group[8] of BC Hydro to assist in responding to information requests from the British Columbia Utilities Commission ("BCUC") or from interveners in BCUC proceedings.

8. I attach my resume as Appendix A.

9. In Section A of this witness statement, I will explain the role of the KAM division at BC Hydro and how it relates to other divisions. In Section B, I will describe briefly the self-generation facilities of pulp mills, and in Section C, I will describe in general terms how BC Hydro measures and accounts for sales of electricity by BC Hydro's self-generating customers.

10. In Section D, I will explain the genesis of the GBL concept in BCUC Order G-38-01 and the way in which BC Hydro has applied it in its subsequent procurement processes. In Section E, I will explain the details of Bio Phase I. Specifically, I will focus on the application of the GBL principles in that call for power and on the setting of the GBL in the EPA between BC Hydro and the Celgar pulp mill.

11. In Section F, I will explain the setting of the GBL in the EPA between BC Hydro and Tembec Skookumchuck. Section G will discuss BC Hydro's IPO, including the application of GBL principles in that offer, and the setting of the GBL in the EPA between BC Hydro and Howe Sound Pulp and Paper ("Howe Sound").

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[6] Power Acquisitions is the group within BC Hydro that is responsible for BC Hydro's procurement of electricity from third party suppliers, including IPPs in the province. The group undertakes competitive calls and other power acquisition processes, and also manages the EPAs.

[7] The ESA is BC Hydro Tariff Supplement No. 5. It provides the standard terms and conditions for transmission service rate customers. These are generally large industrial facilities such as pulp and paper mills and mines. TS No. 5, **R-122**.

[8] Regulatory and Rates is the group within BC Hydro that is responsible for managing BC Hydro's British Columbia Utilities Commission ("BCUC") filings and participation in proceedings before the BCUC.

12. Finally, in Section H, I will describe BC Hydro's Information Report on GBLs, which was filed with the BCUC for information purposes in June 2012.

13. I have personal knowledge of the matters described in this witness statement, except where based on information and belief, in which case I indicate the source of the information and my belief that it is true.

14. I have reviewed the documents cited for the purposes of preparing this witness statement. I am a fact witness in this NAFTA arbitration.

A. THE KEY ACCOUNTS MANAGEMENT DIVISION AT BC HYDRO

15. BC Hydro is a fully integrated utility with a broad array of expertise relating to all aspects of electricity generation, transmission and distribution. Within BC Hydro, the KAM division reports to the General Manager of Customer Care and Power Smart,[9] and has two key roles: 1) to act as the primary point of contact between BC Hydro and its largest customers; and 2) to deliver Power Smart's DSM programs to those customers.

16. As the primary point of contact between BC Hydro and its largest customers, the effectiveness of the KAM division depends on developing and maintaining business relationships with BC Hydro customers, which includes understanding their business operations and objectives from the plant floor up to the executive level of management.

17. The KAM division must equally maintain an understanding of all of BC Hydro programs, rates, regulatory and legal requirements, and operational requirements in order to understand how they impact the customers' unique businesses. Our ultimate goal is to help both BC Hydro and the customer achieve their respective business objectives. Because of our knowledge, experience and relationships with BC Hydro's largest customers, the KAM division is often called on by various internal BC Hydro departments to provide its expertise on a variety of matters, including outage coordination, contract negotiations, contract management, interconnections, load forecasting, system planning, billing issues, rates management, and drafting supporting briefing materials that are needed by BC Hydro executive management.

[9] Currently the General Manager reports directly to the President and CEO of BC Hydro.

18. Key Accounts Managers are also charged with delivering BC Hydro's Power Smart DSM programs to its largest customers. This involves engaging with our customers in energy studies at their unique operating facilities, focusing on the implementation of DSM programs that conserve energy, benefit the environment, improve operating efficiencies and/or reduce the energy demand BC Hydro must serve by increasing on-site customer-based generation. Energy conservation and DSM efforts help BC Hydro to manage its short- and long-term energy and system planning needs with minimum impact to its electricity rates.

19. One example of a Power Smart DSM initiative that the KAM division implements is the LDA. This type of initiative involves financial incentives for customers to increase their self-generation output in order to displace a portion of their load, which would otherwise be served by BC Hydro.[10] The KAM division has input into the negotiation of LDAs with BC Hydro's customers, and manages the interaction between LDAs and the other agreements BC Hydro has with the customer, particularly the ESA.

20. Reducing the demand on BC Hydro's system can also be achieved with an EPA for customer-based generation. In these situations, a Key Accounts Manager would assist in working out the resulting accounting and billing issues, and in managing the contract interactions once the agreement is finalized. The KAM division would also be involved during the negotiation of the EPA as it would determine what the customer normally self-supplies from its on-site generation resources and what the customer normally purchases from BC Hydro for the purposes of setting an annual GBL for the life of the contract.

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[10] The financial incentive is structured to remove financial barriers to the customer undertaking the incremental generation while accounting for the benefit to the customer of reduced purchases from BC Hydro. One of the first projects of this kind was with Canfor at its Prince George pulp mill. BC Hydro paid Canfor up to $49 million towards the construction of new generating equipment (the total budgeted project cost was $81.4 million). In exchange, Canfor was obligated to displace 390GWh/year of its [redacted] load for a period of 15 years: Power Smart Incentive Program Agreement Between BC Hydro and Canfor Corporation, February 10, 2004, **R-156**. [redacted]: Letter from Richard Stout to William Grant Re: British Columbia Hydro and Power Authority ("BC Hydro") Canfor Forest Products Ltd. (Canfor) Power Smart Load Displacement Project, November 12, 2003 at bates 149451, **R-157**. [redacted]: Power Smart Incentive Program Amending Agreement No. 2 between BC Hydro and Canfor LP, February 4, 2009, **R-158**. BC Hydro also concluded an LDA with Weyerhauser (later Domtar) at its Kamloops pulp mill in 2003.

21. While the KAM division has input into and facilitates the conclusion of LDAs and of EPAs, responsibility for agreement terms and negotiations rests with BC Hydro's Power Smart and Power Acquisitions groups, respectively. I understand that more detail about BC Hydro's energy acquisition programs is provided in the witness statement of Jim Scouras.

B. THE SELF-GENERATION FACILITIES OF PULP MILLS

22. BC Hydro uses the term "self-generation facilities" to refer to electricity generation facilities that are installed at a customer's industrial plant, that are situated on the customer's side of the point of delivery,[11] and that are used to supply a portion of the customer's load.[12] Among BC Hydro's transmission service rate customers with self-generation facilities are kraft pulp mills. These mills burn black liquor, a by-product of their chemical pulping process, in a recovery boiler to produce steam. High pressure and high temperature steam from the recovery boiler needs to be reduced and regulated for mill production purposes. One way to do this is to run the steam through a turbine, a by-product of which can be electricity production.

23. Historically, most pulp mills in BC had in place a "back-pressure extraction turbine" whose primary purpose was to regulate the steam to meet the thermal needs of the pulp plant, and whose secondary purpose was to generate electricity to serve a portion of the plant's electrical load. More recently, BC Hydro has been providing incentives to its pulp mill customers to install "condensing capacity" or "condensing turbines" to capture excess steam and generate electricity to reduce demand on BC Hydro's system.

24. In addition, most pulp mills have secondary boilers (sometimes referred to as power boilers) to augment the amount of steam available at the site. Secondary boilers consume different kinds of fuel, such as wood waste (referred to as "hog fuel") and/or natural gas. As with a recovery boiler, the steam from a secondary boiler can then be routed through a common high-pressure header to a steam turbine generator to produce electricity.

[11] The point of delivery is defined in the customer's ESA with BC Hydro.

[12] BC Hydro Tariff Supplement No. 74 Customer Baseline Load ("CBL") Determination Guidelines, Attachment B, Section 2 Definitions, **R-159**.

C. THE SALE OF ELECTRICITY BY BC HYDRO'S SELF-GENERATING CUSTOMERS

1. Metering and Accounting for Sales by Self-Generating Customers

25. Any customer that wishes to operate its self-generation facilities to sell electricity to BC Hydro or a third party will require installation of BC Hydro-approved metering on the generator and the plant, and may require bidirectional metering at the point of delivery.[13] The additional metering is required so that BC Hydro and the customer (and any third party purchaser) can identify what self-generation output is used for self-supply and what is sold, and to help reconcile any billing or financial transactions in the various agreements between the parties.

26. If the amount of the customer's self-generated electricity exceeds the load requirements of the customer's plant, there will be a physical transfer of electricity to the utility system that will be measured by the metering equipment at the point of delivery.[14] Whether the customer will be compensated (or penalised) for delivering such electricity to the utility system will depend on the applicable tariffs and agreements between the customer, the utility and any third party purchaser that might be involved, and whether the injection of energy into the utility system complies with those tariffs and agreements.

27. If a customer with self-generation facilities produces incremental self-generated electricity in excess of the amount normally made for self-supply, but not in excess of plant load, there would be no physical flow to the utility system. However, there would be increased self-generation output at the customer's site which would physically reduce the inflow of electricity from the utility system. The reduced supply from the utility would be measured by the metering equipment at the point of delivery.

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[13] This metering equipment is in addition to the standard metering equipment required to measure the customer's purchases under its ESA with BC Hydro.

[14] The physical transfer is also subject to the protection and control ("P&C") equipment that regulates the physical flow of electrons to BC Hydro's system. Pursuant to the standard form ESA, P&C equipment must be installed at the point of interconnection between BC Hydro's system and the customer's system. Once installed, electricity can physically flow only from BC Hydro's system to the customer's system, and not the other way around. In order to sell electricity in excess of load, modifications to the P&C equipment are required.

28. An LDA is a contract structure that can be used to incentivize incremental self-generation (*i.e.* electricity the customer would not otherwise produce in normal operations) for self-supply, which results in reduced demand on the utility system. The LDA approach also results in the customer purchasing less electricity from the utility. The financial incentive under an LDA is structured to remove financial barriers to the customer undertaking the incremental generation to the benefit of all customers, while accounting for the benefit to the one customer of reduced purchases from the utility.[15]

29. An EPA is another contract structure that can be used to encourage incremental self-generation that the customer would not otherwise produce. In most cases, even though an EPA is for the sale of electricity, some or all of the self-generated electricity is consumed by the self-generator's mill load and is not physically delivered to BC Hydro. The EPA approach deems the electricity to be delivered to BC Hydro, but in most cases the transaction does not reflect the actual physical flows of electricity.[16] In this sense, the impact of a customer's generation on the demand placed on the utility system and the amount of electricity supplied to the customer could look the same at the point of delivery meter as in the LDA scenario described above.

30. This approach requires accounting transactions to make the deemed simultaneous purchase and sale. To ensure that the customer does not receive a double benefit from the compensation under the EPA and from the reduced physical take of electricity from the utility as measured at the meter, the customer is deemed to have purchased the amount that they would have purchased in the absence of the deemed delivery of their incremental self-generation under the EPA. In other words, assuming a customer is not physically exporting electricity from its site, the amount sold by the customer under the EPA is added to the amount supplied to the customer as measured at the meter and the customer is billed for electricity based on the total sum.

31. A principal objective in the introduction of a GBL in an EPA for the purchase of energy from self-generating customers is that all else remains the same for both the utility and the

[15] In this way, the total incentive corresponds to the up-front funding under the LDA plus the customer's savings from reduced purchases from BC Hydro over time. The customer's CBL is also reduced by the annual energy commitment under the LDA.

[16] The only case in which an EPA sales transaction would reflect the actual physical flows of electricity is where the generator is producing electricity in excess of mill load and selling only the surplus, such that the sale transaction matches the metered delivery to the utility system.

customer. This means that the utility continues to bill for approximately the same amount of energy and demand as it did under normal operating conditions prior to the sales under the EPA, and that the customer continues to pay approximately the same amount for service from the utility as it had prior to entering into the EPA, even though it is no longer receiving the same amount of physical energy or placing the same level of demand on the utility system.[17]

2. Self-Generators Who Wish to Sell Generation to Parties Other than BC Hydro

32. If a transmission service customer wishes to increase its self-generation output to become not only self-sufficient for its own plant needs, but also to sell excess electricity off its site to a party other than BC Hydro or Powerex Corp. ("Powerex")[18] by "wheeling"[19] over the BC Hydro transmission system, the customer must apply to BC Hydro for interconnection and system upgrade studies and agreements, and for wheeling services pursuant to BC Hydro's Open Access Transmission Tariff ("OATT").[20] To my knowledge, no BC Hydro transmission service rate customer has ever done this.

33. If a customer with self-generation facilities proposes to produce incremental self-generated electricity in excess of the amount normally made for self-supply, but not in excess of mill load, in exchange for compensation from, or benefit sharing[21] with, Powerex, the customer must approach BC Hydro to conclude a special arrangement. The special arrangement would include agreements with respect to settling on the amount of incremental generation to be sold and determining special conditions, including billing, and cost and benefits sharing. There has

[17] In the event that a self-generator's electrical load grows after concluding an EPA with a GBL, BC Hydro will supply the incremental load.

[18] Powerex Corp. is a wholly-owned power marketing subsidiary of BC Hydro.

[19] "Wheeling" means the transmission by an electric utility of electricity produced by another along the utility's own transmission network. The transmission network owner will generally charge a fee for wheeling based on how much power is being moved.

[20] BC Hydro wheels power for eligible wheeling customers in accordance with its Open Access Transmission Tariff, effective 18 April 2013 (Accepted by BCUC on 26 April 2013 pursuant to Order No. G-59-13). The OATT can be found online at:
<http://transmission.bchydro.com/regulatory_filings/tariff/tariff_documents/open_access_tariff.html>.

[21] Benefit sharing is a sharing of sales revenue on a percentage basis, rather than compensation at a fixed price. *See* BCUC, Order Number G-38-01, "British Columbia Hydro and Power Authority Obligation to Serve Rate Schedule 1821 Customers with Self-Generation Capability", 5 April 2001 ("G-38-01"), **R-19**.

only been one such arrangement, which was concluded with Howe Sound Pulp and Paper in 2001, and which will be discussed in further detail in section D.1 below.

34. If a customer wishes to sell incremental self-generated electricity in excess of the amount normally made for self-supply, but not in excess of mill load, to a third party other than Powerex, additional complex issues would arise as a result of reconciling the multiple tariffs, including any applicable wheeling tariffs, agreements and obligations between all of the parties involved. I have not fully considered these issues or potential solutions to them because, to my knowledge, no BC Hydro customer has ever proposed to do this.

D. THE DEVELOPMENT OF THE GBL CONCEPT

1. BCUC Order G-38-01

35. In February of 2001, Howe Sound Pulp & Paper ("Howe Sound"), an industrial transmission service rate customer of BC Hydro with self-generation facilities at its Port Mellon pulp and paper mill, approached BC Hydro to explore the possibility of selling self-generation at market rates.[22] Specifically, Howe Sound was looking to make incremental energy sales to Powerex.

36. The proposed use of self-generation for sales was a new idea, driven by very high electricity market prices, and BC Hydro was concerned about the possible rate impacts and financial consequences that might result if it was required to serve the increased load requirements of the selling customer.[23] BC Hydro therefore requested the BCUC to initiate a process to explore BC Hydro's obligations to serve customers with self-generation facilities that wish to take self-generation output to the market.[24] That process resulted in BCUC Order G-38-

[22] Chronology of Events for Howe Sound Idle Generation, **R-78**; Letter from Craig Folkestad to Jerry Peet, dated February 12, 2001, **R-79**.

[23] BC Hydro's letter dated February 23, 2001 to the BCUC at 020532, **R-81**. *See also* letter from Craig Folkestad to Jerry Peet, dated February 12, 2001, **R-79** ("[redacted]")

[24] BC Hydro's letter dated February 23, 2001 to the BCUC, **R-81**.

01, which continues to be the primary regulatory guidance BC Hydro uses to frame the principles and process for setting GBLs in EPAs and LDAs with customers that have self-generation facilities.

37. Order G-38-01 established principles to facilitate transactions between BC Hydro and its self-generating customers wishing to sell electricity. The primary principle in the Order is that such sales should not harm other ratepayers. The BCUC specified that BC Hydro is to allow customers with "idle" self-generation capacity to sell "incremental" self-generated electricity, and that BC Hydro is not required to supply any increased electricity to the customer at embedded cost rates if this would facilitate arbitrage between the embedded cost rates and market prices.[25] The BCUC staff report appended to Order G-38-01 describes "incremental" self-generation as the electricity generated by the customer above what it generates for self-supply under current normal operating conditions.[26] Order G-38-01 directs BC Hydro to allow its self-generating customers to capture an electricity market price benefit in exchange for producing incremental self-generation. Other ratepayers will not be harmed by these activities because the self-generating customer continues to produce its normal amount of self-generation for self-supply at no additional cost to the utility.

38. Pursuant to the principles established in BCUC Order G-38-01, Howe Sound and BC Hydro settled the terms of BC Hydro's consent to Howe Sound's sales to Powerex.[27] One element of the negotiations involved determining what Howe Sound was generating under normal operating conditions, so that only incremental energy would be sold to Powerex. Howe Sound and BC Hydro agreed to an hourly threshold of [redacted] MW for Howe Sound's self-generation facilities, above which Howe Sound could sell its self-generated electricity to Powerex. I believe that BC Hydro's KAM at that time (Craig Folkestad) worked together with

[25] G-38-01 at 2, **R-19**.

[26] Commission Staff Report, Appendix A to G-38-01, **R-19**.

[27] Howe Sound's proposal was to produce self-generation output in excess of the amount normally made for self-supply, but not in excess of mill load. The transaction between Howe Sound and Powerex was based on the amount of electricity Howe Sound generated above the [redacted] MW threshold and the price that that Powerex would pay Howe Sound for it. However, the separate transaction between Powerex and an electricity purchaser (be it in the U.S. or Alberta) would have to rely on BC Hydro system resources because all of the electricity generated by Howe Sound (including that in excess of [redacted] MW) would be consumed on site by the mill. As such, BC Hydro's involvement and consent was required to reconcile the applicable tariffs and agreements.

Howe Sound senior technical and management staff to develop the baseline appropriate to the type of transactions contemplated.

39. Based on my Key Accounts Management experience with Howe Sound, my familiarity with Howe Sound's operations, my review of pertinent documents, and discussions with Craig Folkestad, I believe the following to be true. The Howe Sound mill had two turbine generators, one a back-pressure extraction turbine ("TG1") and the other a condensing turbine ("TG2"). It also had a recovery boiler, which combusted the black liquor by-product of the kraft pulping process, and a power boiler fuelled by hog fuel and natural gas (the "power boiler"). [redacted],[28] the power boiler was burning natural gas on a consistent basis in order to generate steam. When natural gas prices became prohibitively high for the mill around 2000, it significantly decreased its steam production and corresponding electricity generation.[29] Without burning natural gas to fire the power boiler, the mill would produce only the level of electricity typically generated as a by-product of steam production to meet the thermal needs of the pulp process. It is my understanding that Howe Sound was contemplating shutting down TG2 altogether, and relying solely on the extraction capability of TG1 to meet its thermal needs.[30]

40. In this context, BC Hydro looked at Howe Sound's hourly generation levels and set the threshold above which the mill could sell at [redacted] MW. To generate more than [redacted] MW in any hour, Howe Sound [redacted]. Howe Sound's self-generation capability in excess of [redacted] MW was therefore an estimate of what was considered "idle" under Order G-38-01 for the type of sales contemplated by Howe Sound and based on the information available at the time.

41. BC Hydro did not at that time enter into an EPA with Howe Sound regarding its self-generation. Instead, BC Hydro signed off [redacted] on a consent agreement that documented

[28] BC Hydro Generation Shortfall Briefing, Re-Discussion with Larry Bell at 021624, **R-76**.

[29] Witness Statement of Pierre Lamarche at ¶¶ 23-25.

[30] Witness Statement of Pierre Lamarche at ¶ 26.

BC Hydro's agreement to facilitate *ad hoc* transactions between Howe Sound and Powerex related to Howe Sound's generation output in excess of the [redacted] MW threshold.[31] The [redacted] MW threshold was developed for the specific purpose of identifying incremental self-generation for hourly [redacted] transactions with Powerex, rather than of identifying incremental self-generation on an annual basis for the purposes of long-term, firm energy sales. In this way, the arrangement can be contrasted with the sales arrangements in BC Hydro's current EPAs, in which there is a firm commitment to produce a fixed amount of electricity each year for a number of years.

2. BC Hydro's Application of the GBL Concept Subsequent to BCUC Order G-38-01

42. While the idea of a customer baseline was not new to BC Hydro at the time of G-38-01,[32] BC Hydro adapted the concept for self-generators in its negotiation of contractual terms for EPAs and LDAs. As explained above, under EPAs, BC Hydro provides financial payments to customers to generate incremental electricity for sale to BC Hydro and under LDAs, BC Hydro provides financial incentives to customers to generate incremental electricity to displace purchases from BC Hydro. During the negotiation process of these agreements, a GBL is set to define the amount of self-generation that the customer normally generates for self-supply so that BC Hydro can determine the category of "incremental" energy that is eligible for payment in the context of an EPA or for a financial incentive in the context of an LDA.

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[31] Purchase Transaction Enabling Agreement between Powerex Corp and Howe Sound General Partner Ltd., 12 April 2001, **R-84**; Consent and Electricity Purchase and Sale Agreement between Howe Sound, Powerex and BC Hydro, 12 April 2001 at bates 021842, **R-85**; [redacted] **, R-160**; **R-161**; **R-162**; **R-163**; **R-164**; **R-69**.

[32] A customer baseline was set, for example, in the context of BC Hydro's Real Time Pricing program, a program established in 1997 that allowed transmission service rate customers to purchase up to 10% of their normal electricity needs at a market price proxy, rather than at BC Hydro's prevailing tariff rate. The baseline level of each customer's normal purchases was reviewed by the BCUC. BC Hydro also used historical customer baselines in the context of its Power Smart Industrial Rate Pilot Program in 2001, approved by BCUC Order G-65-01, **R-165**. Under this program, incentives were provided to participating customers to conserve energy to a maximum of 20% of the customer's historical baseline level of consumption.

43. Through an EPA or an LDA, BC Hydro then provides a financial incentive to the customer in return for the customer's commitment to produce self-generation in excess of the GBL, which will decrease the demand on BC Hydro's system to the benefit of all customers. BC Hydro has no interest in paying a customer for electricity that it already self-generates under normal operating conditions. Payment for such "existing" electricity would add nothing to BC Hydro's resource base, and would merely transfer wealth from BC Hydro and its customers to one self-generator in exchange for nothing in return.

44. To set an appropriate GBL for an EPA or an LDA with a self-generating customer, BC Hydro and the customer review the best available information at the time of the power procurement process, including the customer's historical self-generation output, energy consumption data, and information relating to the customer's unique manufacturing operations. The goal is to define the amount of annual self-generated energy normally used by the customer to self-supply under current conditions without the prospect of the currently negotiated EPA or LDA. Assessing normal operations in the absence of the prospective incentive of the contract protects BC Hydro and its ratepayers from a customer gaming the system in advance of negotiations by, for example, lowering their generation levels for the purpose of setting a lower GBL.

45. When setting a GBL, BC Hydro also accounts for any existing contractual obligations the customer may have that might affect its historical self-generation output. When an existing contractual obligation will continue in parallel with the new EPA or LDA, the ongoing commitments under the existing contract form part of the self-generator's current normal operations and will be considered as such when setting the GBL. This was the situation, for example, when BC Hydro signed an EPA with Canfor (Prince George) on February 4, 2009.[33]

[33] Like Celgar, Canfor (Prince George) was one of the four successful bidders to receive an EPA in Bio Phase I. The contract was concluded on February 4, 2009: BC Hydro and Canfor Pulp Limited Partnership Electricity Purchase Agreement – Bioenergy Call for Power – Phase I, dated February 4, 2009, **R-137**. In setting the GBL for Canfor, I assessed what the mill was generating for self-supply under current normal operating conditions [redacted]. Under normal operating conditions, [redacted] *See* Letter from Brett Robinson to David Calabrigo re: Reset of 2004 PG Cogen Project Baseline,

46. Alternatively, if an existing contract will end prior to the new EPA or LDA achieving its commercial operation date, BC Hydro and the customer must determine how the customer will operate, including how much self-generation it will produce, when the existing obligations end. Accounting for existing contractual obligations ensures that appropriate incentives are set in the new EPA or LDA for incremental generation. This can, however, be a complex exercise when the parties are attempting to estimate what normal operations will be after the obligations that are currently altering the customer's generation behaviour have ended. This was the situation when BC Hydro signed an EPA with Tembec (Skookumchuck) on August 13, 2009 (see section F below).

47. While these overarching principles are applied in every case, the particulars of an energy acquisition or load displacement program define the energy product sought by BC Hydro, the corresponding contractual requirements and the approach to setting a GBL for a customer with self-generation facilities. For example, the particulars of a power acquisition program will vary depending on whether BC Hydro is looking for an annual, seasonal or hourly energy product, and whether BC Hydro is looking for a firm or non-firm energy product. The design of energy acquisition processes rests with BC Hydro's Power Acquisitions group and the design of load displacement programs rests with BC Hydro's Power Smart group. While the KAM division is not responsible for designing such processes and programs, it has a role in implementing or delivering them.

48. The first power acquisitions program initiated after BCUC Order G-38-01 was the 2002 Customer-Based Generation Call for Tenders. The parameters of the call mandated BC Hydro to seek power from either customers with historical self-generation or customers interested in establishing new self-generation facilities at their plant.[34] If a customer with historical self-

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dated August 12, 2008, **R-166**; Draft Letter Agreement between BC Hydro and Canfor Re Amendment of Prince George Load Displacement Agreement, dated October 16, 2008 at bates 070124, **R-167**.

[34] Customer-Based Generation 2002 Request for Qualifications, 31 May 2002 at 6, **R-168**: "The proposed electricity supply must be incremental – that is electricity from new generation facilities or from an increase in capacity of, or energy from, existing facilities resulting from capital modifications (other than normal capital maintenance programs). Generation that directly or indirectly reduces electricity that would otherwise be available to BC Hydro under existing contracts or resulting from curtailment of other operations, whether for economic or other reasons, does not qualify." Customer-Based Generation, 2002 Call for Tenders, Generator Baseline at 1, **R-169**.

generation were interested in the call, a GBL would have to be set to determine the level of historic self-supply in normal operations.[35] For customers interested in establishing new self-generation facilities where none existed before, the GBL would be zero, and all self-generation would qualify as "incremental" under the terms of the call. In the end, no customer with existing self-generation was successful in the call and thus no GBLs were set in an EPA.[36] I understand that more detail on the 2002 Customer-Based Generation Call for Tenders are provided by Jim Scouras in his witness statement.

49. The principles of Order G-38-01 were also applied in setting GBLs for BC Hydro's Bio Phase I EPAs,[37] which I will address in more detail below. The Bio Phase I Request for Proposals was issued on February 6, 2008, and expressly stated that "[c]ustomers intending to submit a Proposal involving incremental self-generation servicing their industrial load must have their existing generation base line ("GBL") determined by BC Hydro."[38] The purpose of determining the GBL was to ensure that the customer continued to use the same amount of self-generation output (*i.e.*, the GBL) for self-supply as it would under normal operating conditions, and that only "incremental" self-generation in excess of the GBL would be purchased by BC Hydro under the EPA.

50. Subsequent to the Bio Phase I EPAs, BC Hydro has used the GBL concept to incentivize the generation of incremental energy in bilateral EPA and LDA agreements, in an EPA pursuant to its Standing Offer Program, as well as in EPAs under its IPO in 2010.[39] In every case, the same principles were applied to set GBLs.

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[35] Customer-Based Generation, 2002 Call for Tenders, Generator Baseline at 2, **R-169:** The GBL would be calculated on the basis of the nameplate capacity of the bidder's generator(s), unless it submitted information acceptable to BC Hydro as to why it should be less than the nameplate capacity. Such information must have included: "historical operating data for each electric generator … listed by month for a minimum of 3 years that represent long-term normal operating conditions" and "the peak output for each month for each electric generator."

[36] There was one proponent in the Customer-Based Generation Call for Tenders that had existing self-generation facilities with idle capacity; however, the proposal did not ultimately result in an EPA.

[37] *See* BC Hydro Bioenergy Call for Power – Phase I, Request for Proposals, 6 February 2008, ("Bio Phase I RFP"), **R-25**.

[38] Bio Phase I RFP at 6, **R-25**.

[39] The IPO was available to BC Hydro's industrial self-generating customers that were also recipients of Natural Resources Canada's ("NRCan") Pulp and Paper Green Transformation Program ("PPGTP") funding. The PPGTP

E. GENERATOR BASELINES IN THE BIOENERGY CALL FOR POWER PHASE I

1. Overview of Bio Phase I

51. The BC Government's 2007 Energy Plan instructed BC Hydro to issue a call for power for electricity produced with sawmill residues, logging debris, and beetle-killed timber.[40] The Power Acquisition group within BC Hydro designed and managed the entire Bio Phase I process.[41]

52. Only "incremental" energy from existing self-generating units or new energy from new projects was eligible under the Bio Phase I call.[42] The proposed energy also had to be "clean," which meant, among other things, that it could not be generated using natural gas.[43] A GBL was an eligibility requirement for customers submitting a proposal involving incremental energy from existing generation units,[44] and proponents were not permitted to terminate an existing long-term agreement prematurely in order to submit the already-committed amount of energy into the Bio Phase I EPA.[45]

53. Twenty proposals were submitted on June 10, 2008 from thirteen different proponents. Ultimately, only four contracts were awarded in the process.[46] The successful proponents were:

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incentives were available to eligible to pulp and paper mills in Canada, and were calculated based on the quantity of black liquor produced in a specific time period prior to the funding. Eight BC Hydro customers received PPGTP funds, including Howe Sound. The IPO integrated both Power Smart initiatives (DSM and energy efficiency projects) and Power Acquisition initiatives (EPAs).

[40] *See* BC Hydro, Report on Bioenergy Call Phase I Request for Proposals, 17 February 2009 at 150615, **R-170**; ("Pursuant to Policy Action No. 21 of the 2007 Energy Plan, the B.C. Government instructed BC Hydro to issue an expression for interest, followed by a call for proposals, for electricity from sawmill residues, logging debris and beetle-killed timber.") I understand that Les MacLaren, Assistant Deputy Minister of the Electricity and Alternative Energy Division of the British Columbia Ministry of Energy and Mines, addresses the policy background to Bio Phase I in his witness statement.

[41] I understand that Jim Scouras, Regional Relationship Manager within BC Hydro's Aboriginal Relations department, describes the design and management of Bio Phase I in his witness statement.

[42] Bio Phase I RFP at 7, **R-25**.

[43] The entire output from the Project needed to qualify as "clean energy" in accordance with guidelines that were published by the BC Ministry of Energy, Mines and Petroleum Resources: Bio Phase I RFP at 7, **R-25**.

[44] Bio Phase I RFP at 6, **R-25**.

[45] Bio Phase I RFP at 7, **R-25**.

[46] BC Hydro Report on the Bioenergy Call Phase I Request for Proposals, 17 February 2009 at 150614, **R-170**.

Celgar (Castlegar), Canfor (Prince George), Domtar (Kamloops), and PG Interior (Prince George).[47] The remaining sixteen proposals were rejected.

2. The Application of the GBL Concept in the Bio Phase I Process

54. The Power Acquisition group, which had primary responsibility for the design and implementation of Bio Phase I, sought the input of the KAM division for the data requirements for the setting of GBLs because of the KAM division's experience with industrial customers with self-generation facilities.[48]

55. The KAM division had several internal discussions and meetings about the implementation of the GBL concept, and consulted with other relevant groups within BC Hydro, including Power Smart and the Transmission Service Rates groups.[49] During these discussions, the principles of BCUC Order G-38-01 were identified as an important part of GBL implementation.[50] We recognized that the "purpose of the GBL is to define incremental/surplus/excess generator output that can be considered for a prospective energy sale," and that, "in principle, the GBL should reflect the portion of the gross [turbine generator] output that displaced actual (billed) BC [Hydro] energy purchases."[51] To facilitate the setting of GBLs for the Bio Phase I call, we determined that the GBL starting point would be the gross metered turbine generation output for a customer's CBL development year (which for most customers at that time was calendar year 2005), but acknowledged that the GBL may then need

[47] Report on Bioenergy Call Phase I Request for Proposals, 17 February 2009 at 150614, **R-170.**

[48] As described above, the KAM division's expertise includes experience with, and knowledge of, BC Hydro's transmission service rates, ESA and related customer billing and business practices, current customer operations, and access to customers' metered data, DSM activity and other operating information.

[49] *See* email from David Keir to Alex Adams, Lester Dyck re: RE: BioeEnergy Call | Use of GBL and its implication on CBL's, dated February 12, 2008, **R-171**; Email from David Keir, to Lester Dyck *et al* re: RE: Review detailed design of GBL concept for interaction with TSR for customer and Power Smart program implications | Meeting Minutes, dated February 15, 2008, **R-172**.

[50] Email from David Keir to Alex Adams, Lester Dyck re: RE: BioeEnergy Call | Use of GBL and its implication on CBL's, dated February 12, 2008, **R-171**.

[51] Email from David Keir, to Lester Dyck *et al* re: RE: Review detailed design of GBL concept for interaction with TSR for customer and Power Smart program implications | Meeting Minutes, dated February 15, 2008 at 026774, **R-172**.

to be adjusted for unique customer circumstances (existing load displacement contracts, EPAs, market sales, etc.).[52]

56. This information was fed into the Registration Form that proponents were required to fill out prior to submitting a proposal into the call. In particular, Schedule A of that Registration Form, entitled "Preliminary GBL data," provided the details necessary for proponents to estimate their own GBL.[53]

57. I also gave presentations on GBLs at two information sessions held by BC Hydro for proponents: one on February 20, 2008, and one on March 26, 2008.[54] During the presentations, I explained that new generation projects and incremental self-generation would be eligible under the call. I also explained that proposals to sell incremental generation from existing facilities would require a GBL, that GBLs would be determined using historical generation data from existing generators, and that only "incremental" energy in excess of the GBL would be eligible for sale.

58. Specifically, in the March 26, 2008 presentation, I explained that, even if a proponent was not a BC Hydro customer, we would still need to define an appropriate reference point above which incremental electrical power generation could be measured and allocated to an EPA.[55] Additionally, I underlined the importance of proponents submitting reasonable and defensible technical information in support of the GBL. As each customer generator and mill operation is unique, I explained that BC Hydro did not want to impose an overly prescriptive

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[52] Calendar year 2005 was chosen to work in conjunction with the Customer Baseline Load ("CBL") mechanism that was implemented as part of BC Hydro's introduction of stepped rates for transmission service rate customers in 2006. The CBL represents the customer's normal historic purchases of BC Hydro power, and for most customers at the time of the Bio Phase I call, was set on the basis of its energy purchases under the relevant tariff in calendar 2005: Email from David Keir, to Lester Dyck *et al* re: RE: Review detailed design of GBL concept for interaction with TSR for customer and Power Smart program implications | Meeting Minutes, dated February 15, 2008 at 026774, **R-172.**

[53] BC Hydro Bioenergy Call for Power – Phase I, Addendum I, 26 February 2008, **R-113.**

[54] *See* BC Hydro's Bioenergy Call, Kamloops, BC, February 20, 2008 Presentation at 22, **R-116**; Bioenergy Call Phase I, Proponent Information Session, March 26, 2008 at 62**, R-117.**

[55] Email from David Keir to Lester Dyck re: Summary of GBL Discussion – 26 March 2008, dated March 27, 2008, **R-173**.

approach to setting GBLs that may fail to account for the unique circumstances of each proponent.[56]

59. All presentation materials, including subsequent questions and answers, were posted on the website for the Bio Phase 1 call process.[57]

3. The GBL Setting Process in Bio Phase I

a) Developing the Annual Contracted GBL

60. As described above, the Bio Phase I process required, as an input for proponents with existing generation, an annual GBL.[58] An annual GBL had to be set with the proponent before the proponent could advance in the Bio Phase I process to contract negotiations. The job of setting annual GBLs within the KAM division was assigned primarily to me and to Bill MacMillan, a Senior Key Accounts Manager.

61. By March 7, 2008, proponents were required to submit information regarding their self-generation facilities, their proposed generation project, their existing contracts for the sale of self-generated electricity or for load displacement, and an estimated annual GBL.

62. On May 2, 2008, BC Hydro notified each proponent of its preliminary annual GBL for the purpose of Bio Phase I. All proponents had the option to contact BC Hydro to ask any questions about the preliminary annual GBL or to challenge the GBL determination at any time prior to submitting a proposal, which was due on June 10, 2008.[59]

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[56] Email from David Keir to Lester Dyck re: Summary of GBL Discussion – 26 March 2008, dated March 27, 2008, **R-173**.

[57] See BC Hydro, Workshops & Presentations, online: <http://www.bchydro.com/energy-in-bc/acquiring_power/closed_offerings/phase_1_rfp/proponent_sessions.html>.

[58] Bio Phase I RFP at 6, **R-25**. The annual GBL figure was articulated in gigawatt-hours ("GWh") and calculated on the basis of 365 days of operations (*i.e.* 8,760 hours).

[59] See Bioenergy Phase I Call RFP, Timeline, online: <http://www.bchydro.com/energy-in-bc/acquiring_power/closed_offerings/phase_1_rfp.html>, **R-174**.

b) Shaping the Annual Contracted GBL

63. Proponents who elected to submit a proposal into Bio Phase I on June 10, 2008, on the basis of the annual GBL would, later in the contractual negotiating process, further refine the annual GBL into seasonal,[60] and/or hourly components. Adjustments would also need to be made for planned and unplanned generation maintenance shutdowns. These refinements and adjustments are often referred to as "shaping" the GBL. It is necessary to shape the GBL because, under the EPA, each seller commits to a seasonal or hourly firm energy sale obligation above the GBL, and must be confident in its ability to meet these contractual obligations in order to avoid penalties. The point of contact for these issues at BC Hydro was Judy Baum of the Power Acquisition group. Every proponent in Bio Phase I had the option to propose a shape for its annual GBL and negotiate any further adjustments.

64. The shaping of the annual GBL into seasonal and/or hourly components was intended to represent the shape of the customer's self-generation output in a normal year, including the typical season and duration of planned maintenance shutdowns. The sum of the components -- be they seasonal or hourly -- always equals the annual GBL. The shape proposed by proponents often depended on operating needs, including the timing and duration of annual maintenance shutdowns, non-annual major maintenance, and normal annual operating hours (*e.g.*, 8400 hours/yr). It is my understanding based on discussions with Judy Baum that the GBL shape was typically, if not always, based on the proponent's operating plan and historical operating information. Each EPA concluded in Bio Phase I also contains a provision that allows a proponent to adjust its GBL shape profile.[61]

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[60] The year is divided into four seasons: Season 1 - Spring (February 1 to April 30); Season 2 - System Freshet (May 1 to July 31); Season 3 - Fall (August 1 to October 31); and Season 4 - Winter (November 1 to January 31). Under the EPA pricing rubric, the seasons are assigned different prices to reflect BC Hydro's global system needs. In Season 2 - System Freshet, for example, the prices are the lowest because BC Hydro's system has a surplus of resources given the runoff of melting snow in the spring. In the winter, when demand is greatest and supply is least, the EPA prices are higher. *See* BC Hydro Bioenergy Call for Power (Phase I) - Commercial Proposal form: **R-175**.

[61] *See*, for example, BC Hydro and Zellstoff Celgar Limited Partnership Electricity Purchase Agreement, Bioenergy Call for Power – Phase I, dated January 27, 2009 ("Celgar 2009 EPA"), s. 7.10 at MER00012877, **R-114**; BC Hydro and Canfor Pulp Limited Partnership Electricity Purchase Agreement – Bioenergy Call for Power – Phase I, dated February 4, 2009, s, 7.11 at bates 065045, **R-137**.

c) The Lifespan of a GBL

65. Out of twenty proposals in Bio Phase I, BC Hydro announced the selection of only four on December 8, 2008.[62] For those who were not awarded an EPA, any GBL determined for them for the purpose of Bio Phase I EPA negotiations has no ongoing effect or meaning. Any rejected proponent was free to submit a new proposal in any subsequent power procurement process, at which time a GBL would be set for that purpose on the basis of normal operating conditions at that time.

66. If BC Hydro decides in the future to renew or enter into a new EPA with a proponent who was awarded an EPA in Bio Phase I (or in any other procurement process), the GBL in the expiring EPA would also not likely be used in the renewed or new EPA.[63] A GBL is a contractual term and has no ongoing effect or meaning after the contract expires. If a proponent wishes to renew or enter into a new EPA, the circumstances at that time would have to be considered when setting the new GBL. For example, how much a self-generator generates in normal operations will depend on the conditions prevailing at the time of EPA renewal or replacement, including utility rates and rate structure, fuel supply availability and cost, and any changes to their core business that might cause them to operate their plant and generation differently. Upon expiry of a current EPA, a self-generator may also decide to self-supply its plant load using its self-generation capability that is no longer under contract to BC Hydro.

4. The GBL for the Celgar Pulp Mill

67. As explained above, the Request for Proposals for Bio Phase I was issued on February 6, 2008, and stated that "[c]ustomers intending to submit a Proposal involving incremental self-generation servicing their industrial load must have their existing generation base line ("GBL") determined by BC Hydro to confirm eligibility."[64] To this end, proponents were required to submit GBL data to BC Hydro by March 7, 2008, to initiate the setting of the annual GBL that

[62] BC Hydro, Draft News Release: BC Hydro announces successful proposals in phase one of Bioenergy Call for Power, 8 December, 2008, **R-176**.

[63] Letter from Janet Fraser to Erica Hamilton Re: BCUC BC Hydro Transmission Service Rate (TSR) Customer Generator Baselines (GBLs) Information Report, dated June 20, 2012 at Appendix E, Q.14, **R-177**.

[64] Bio Phase I RFP at 6, **R-25**.

would be used in the contractual negotiation process if the proponent decided to submit a proposal on that basis on June 10, 2008.

68. On March 6, 2008, Zellstoff Celgar ("Celgar")[65] submitted a registration form to BC Hydro that provided minor details on two potential projects at its Castlegar pulp mill: the Biomass Realization Project and the Green Energy Project.[66] On its Registration Form, Celgar indicated that it "does intend to submit a Proposal [on June 10, 2008] with incremental self-generation, and has accurately completed the attached Schedule A concerning the undersigned's estimated GBL."[67] Under Schedule A, Celgar estimated its GBL to be [redacted],[68] [redacted].

69. Following the submission of their Registration Form, Celgar participated in one-on-one workshop sessions with BC Hydro personnel in March 2008 to discuss the Bio Phase I process and the mill's proposed projects.[69] On April 2, 2008, I personally participated in a meeting with representatives from Celgar to ask questions and receive further information on its two proposed projects. Celgar explained that, under the Green Energy Project, it was proposing to sell electricity generated by a 48 MW turbine generator that it proposed to build. Celgar stated that the electricity generated by the turbine would be in excess of its mill load. We had no concerns with this project advancing into the Bio Phase I process because the electricity generated by the yet-built turbine would qualify as "new" electricity under the terms of the call.

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[65] I was not aware at the time of the Bio Phase I negotiations that Celgar was owned by an American company.

[66] BC Hydro Bioenergy Call for Power (Phase I) – Registration Forms, dated 6 March 2008 (Celgar Green Energy Project at MER00278896; Biomass Realization Project at MER00278903), **R-123**. Celgar operates a kraft pulp mill in Castlegar, British Columbia, within the FortisBC Inc. ("FortisBC") service territory. Celgar is therefore a customer of FortisBC and is not connected directly to the BC Hydro system, only indirectly through FortisBC. Celgar had previously submitted a Request for Expressions of Interest Form for Bio Phase I: 2007 Bioenergy RFEOI Form, **R-111**.

[67] BC Hydro Bioenergy Call for Power (Phase I) – Registration Forms, 6 March 2008 at MER00278897 and MER00278904, **R-123**.

[68] BC Hydro Bioenergy Call for Power (Phase I) – Registration Forms, 6 March 2008 at MER00278900 and MER00278907, **R-123**.

[69] Email from Laila Bassim to Brandee Clayton Re: Bio Workshop, one one one sessions - Zellstoff Celgar Limited Partnership (ZC), dated March 27, 2008, **R-178**.

70. With respect to the Biomass Realization Project, Celgar explained that it was proposing to sell electricity generated by its existing 52 MW generator.[70] It explained that the existing 52 MW generator had been installed by the previous owners of the mill in 1993 and had historically been used to serve the mill's electricity needs. In fact, Celgar confirmed that it was currently using the 52 MW generator to serve the mill's entire load, and had even on an *ad hoc* basis sold surplus electricity (*i.e.* electricity above its load) to either FortisBC or NorthPoint Energy Solutions Inc. ("NorthPoint").[71] It was also clear that Celgar was planning to purchase electricity from FortisBC to serve its mill load so that it could free up its own existing power generation to sell to BC Hydro.[72]

71. I was concerned with Celgar's Biomass Realization Project proposal because it would require Celgar to increase its energy purchases from FortisBC, and FortisBC, being a customer of BC Hydro, would likely address that by purchasing additional energy from BC Hydro. I participated in a call with representatives from FortisBC to discuss Celgar's proposal, and FortisBC confirmed that they would likely address additional demand on their system by drawing more power from BC Hydro under its Rate Schedule 3808.[73]

72. BC Hydro's concern with Celgar's proposed Biomass Realization Project was well expressed in a briefing note dated April 9, 2008, which was written by Judy Baum and reviewed by me: [redacted]

[70] BC Hydro Bioenergy Call for Power (Phase I) – Registration Forms, March 6, 2008 at MER00278907, **R-123**; Power Acquisitions Bioenergy RFP - Phase I Briefing Note on Celgar, dated April 9, 2008 at bates 020509, **R-179**.

[71] NorthPoint Energy Solutions is the wholly owned power marketing subsidiary of SaskPower, a public utility of the Province of Saskatchewan, **R-180**. Power Acquisitions Bioenergy RFP - Phase I Briefing Note on Celgar, dated April 9, 2008 at bates 020509, **R-179**; BC Hydro Bioenergy Call for Power (Phase I) – Registration Forms, 6 March 2008 at MER00278907, **R-123**.

[72] Power Acquisitions Bioenergy RFP - Phase I Briefing Note on Celgar, dated April 9, 2008 at bates 020509, **R-179**.

[73] Power Acquisitions Bioenergy RFP - Phase I Briefing Note on Celgar dated April 9, 2008 at bates 020507, **R-179**. BC Hydro's RS 3808 rate is the rate at which FortisBC purchases electricity from BC Hydro.

[redacted][74]

73. To avoid setting a precedent for arbitrage to the detriment of BC Hydro's customers, and to avoid providing Celgar with a mere transfer of wealth without receiving any new or incremental energy in return, we concluded that Celgar's Biomass Realization Project, to the extent that it involved the sale of generation up to the mill's normal load, was not eligible under the terms of the Bio Phase I call for power.[75]

74. On May 2, 2008, BC Hydro advised Celgar that its proposed Green Energy Project would be eligible under the call because it was a new generator that did not previously exist.[76] With respect to the Biomass Realization Project, however, BC Hydro explained that the intent of the Bio Phase I call was to acquire incremental generation, and not existing generation being used to self-supply a proponent's load. BC Hydro wrote:

> [A]n industrial facility with current generation applied to load displacement cannot divert all or any part of that generation to sales under an EPA awarded in this Call, with that supply replaced, directly or indirectly, by BC Hydro. This principle applies equally to BC Hydro industrial customers and to customers of FortisBC, to which BC Hydro is an energy supplier. BC Hydro's position is consistent with decisions of the British Columbia Utilities Commission and we do not intend to change our application of these eligibility requirements.[77]

75. BC Hydro went on to explain:

> We understand that Celgar currently uses energy from the Existing Generator to serve the Celgar mill load and occasionally sells energy from the Existing Generator surplus to mill load to FortisBC. We further understand that Celgar, for the purposes of the Biomass Realization Project, is exploring the possibility of recalling some or all of the load

[74] Power Acquisitions Bioenergy RFP - Phase I Briefing Note on Celgar, dated April 9, 2008 at bates 020509, **R-179**.

[75] Power Acquisitions Bioenergy RFP - Phase I Briefing Note on Celgar, dated April 9, 2008 at bates 020509, **R-179**. Letter from RFP Administrator to Brian Merwin Re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project, dated May 2, 2008 at bates 028581, **R-126**.

[76] Letter from RFP Administrator to Brian Merwin Re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project, dated May 2, 2008 at bates 028581, **R-126**.

[77] Letter from RFP Administrator to Brian Merwin Re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project, dated May 2, 2008 at bates 028580, **R-126**.

> displacement arrangements currently in place with FortisBC, and additional energy required to serve the mill load to be supplied by FortisBC, with the intent of submitting a proposal to BC Hydro in this Call for the sale of the resulting additional surplus energy to BC Hydro.
>
> Based on our understanding of the information you have provided, and applying the eligibility requirements described above, a proposal based on your Biomass Realization Project, to the extent that it involves the supply to BC Hydro of generation up to your normal mill load, would not be eligible for consideration in this Call. … Generation from the Existing Generator in excess of your normal mill load would be considered incremental and eligible for consideration in this Call.[78]

76. In short, BC Hydro advised Celgar that only output in excess of the mill's load would be eligible for sale in an EPA because the electricity generated by the existing 52 MW self-generation facility was being used to self-supply the mill's load under normal operating conditions. BC Hydro invited Celgar to submit additional historical generation data to set an annual GBL for the EPA.[79]

77. On May 7, 2008, Mr. Brian Merwin wrote to BC Hydro on behalf of Celgar, requesting that BC Hydro reconsider the eligibility of the Biomass Realization Project under the terms of Bio Phase I[80]. Mr. Merwin suggested that, because Celgar is not a customer of BC Hydro, the energy it proposed to sell would be "new" to the BC Hydro "system" and thus eligible under the call.[81] I did not agree with Mr. Merwin. The Biomass Realization Project would not produce any new electricity at all. Therefore, there would be nothing new added to any of the systems of Celgar, FortisBC or BC Hydro. If BC Hydro had agreed to pay Celgar for Biomass Realization Project energy, there would have been a series of financial transactions resulting in profits for Celgar and FortisBC and net costs for BC Hydro. There would be net costs to BC Hydro because it would buy energy from Celgar under the EPA (at [redacted] /MWh) and sell the equivalent amount of incremental energy to FortisBC at the Rate Schedule 3808 rate (about $36/MWh).

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[78] Letter from RFP Administrator to Brian Merwin Re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project, dated May 2, 2008 at bates 028580-1, **R-126**.

[79] Letter from RFP Administrator to Brian Merwin Re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project, dated May 2, 2008 at bates 028581, **R-126**.

[80] Letter from Brian Merwin to BC Hydro RFP Administrator, re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project and Celgar Green Energy Project, dated May 7, 2008, **R-127**.

[81] Letter from Brian Merwin to BC Hydro RFP Administrator, re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project and Celgar Green Energy Project, dated May 7, 2008 at 019771, **R-127**.

78. As an alternative, Mr. Merwin agreed to work with BC Hydro to set a GBL for the mill. Mr. Merwin wrote: "If BC Hydro will not reconsider the eligibility of the Biomass Realization Project, as a whole, having regard to the RFP, we will wish to establish the equivalent of a generator baseline ('GBL') so as to include energy that is considered eligible (from our existing generator) in our proposal."[82] He went on to state that Celgar "will need to work with BC Hydro to establish the equivalent of a GBL similar to that which has been established with BC Hydro's customers under the RFP process."[83] To that end, Mr. Merwin included in his letter the following historical generation data from the Celgar mill:

Historic Data:

Year	Pulp Production (Tonnes/year	Generator Production (MWhrs)	Purchases from Fortis(MWhrs)	Power Sales (MWhrs)	Annual Mill Load (MWhrs)	MWhr Consumed per tonne of Production	**Natural Gas Consumed for Steam Production (GJ's)**
2002	402,461	223,970	93,702	3,948	313,724	0.78	1,038,254
2003	422,504	258,666	71,400	4,914	325,152	0.77	946,846
2004	434,117	271,326	59,220	14,028	316,518	0.73	769,525
2005	444,694	300,192	54,432	26,202	328,422	0.74	655,373
2006	438,855	290,413	61,523	22,213	329,723	0.75	629,254
2007	476,242	350,641	22,560	23,926	349,275	0.73	303,006

79. Mr. Merwin proposed a GBL of 33 MW (289.1 GWh/year), based on the mill's generation levels in 2006.[84] This was different than the GBL submitted by Celgar to BC Hydro in its Registration Form on March 6, 2008, which worked out to 34.3 MW (300.2 GWh/year).[85] The Registration Form estimate was based on Celgar's generation levels in 2005.

80. The information provided in Mr. Merwin's letter also confirmed the following facts: (a) the operation of the existing 52 MW self-generation facilities was being used to meet Celgar's entire mill load; (b) on occasion, Celgar sold electricity in excess of its mill load to FortisBC and

[82] Letter from Brian Merwin to BC Hydro RFP Administrator, re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project and Celgar Green Energy Project, dated May 7, 2008 at 019774, **R-127**.

[83] Letter from Brian Merwin to BC Hydro RFP Administrator, re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project and Celgar Green Energy Project, dated May 7, 2008 at 019772, **R-127**.

[84] Letter from Brian Merwin to BC Hydro RFP Administrator, re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project and Celgar Green Energy Project, dated May 7, 2008 at 019775, **R-127**.

[85] BC Hydro Bioenergy Call for Power (Phase I) – Registration Forms, 6 March 2008 at MER00278907, **R-123**.

NorthPoint; (c) Celgar purchased electricity from FortisBC only when Celgar's generation facilities were not operating normally; (d) Celgar had upgraded its pulp production and steam efficiencies in 2005 and 2006, and 2007 was the first year the mill ran with the efficiencies in place; and (e) in 2007 under normal operating conditions, Celgar's load was 40 MW, but would likely increase to 43MW or 45MW in future years.[86]

81. Following receipt of this letter, I had several phone calls and in-person meetings with Mr. Merwin to discuss the operating data and the parties' positions on the GBL. Mr. Merwin argued that only data from or prior to Celgar's plant upgrade in 2006 should be used to determine the GBL. I explained to Mr. Merwin at these meetings that the purpose of the GBL was to determine what is representative of a normal operating year based on the best information available at the time. I therefore did not agree with using Celgar's generating data from 2005 or 2006 to set the GBL because it was prior to completion of major plant changes undertaken at the Celgar mill. Mr. Merwin had explained to me that Celgar had made significant changes to upgrade the mill's operating efficiency, production rate, and reliability, and to reduce operating costs such as natural gas purchase costs. As such, the 2005 and 2006 generating data did not reflect current normal operations at the time of negotiating the GBL under Bio Phase I. The upgrade and efficiency improvement projects were not completed until 2007, and thus self-generation production from years prior to 2007 could not be considered current normal self-generation.

82. To confirm the nature of normal operations at the Celgar mill, I asked Mr. Merwin in our meetings about the conditions under which Celgar normally bought power from FortisBC and under what conditions they normally sold power. He confirmed that Celgar only buys electricity from FortisBC when the self-generation facilities are down for planned maintenance or when there are temporary operating upsets. He also confirmed that Celgar had only ever sold electricity when self-generation production exceeded the mill load, resulting in a physical export to the FortisBC system. For these reasons, it was evident that Celgar was self-supplying its mill load under normal operating conditions.

[86] Letter from Brian Merwin to BC Hydro RFP Administrator, re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project and Celgar Green Energy Project, dated May 7, 2008 at 019775-7, **R-127**.

83. On May 30, 2008, BC Hydro wrote to Mr. Merwin confirming again that electricity generated from Celgar's Green Energy Project would be eligible under the call. The letter also confirmed that the Biomass Realization Project, to the extent that it involved sales to BC Hydro of generation normally used to self-supply its mill load, was not eligible under the call for the reasons stated in BC Hydro's May 2, 2008 letter. BC Hydro was, however, able to purchase electricity from Celgar under the Bio Phase I call above Celgar's GBL. While Mr. Merwin confirmed that the mill's load would likely increase to 43 MW or 45 MW in future years and that the mill would in all likelihood meet that increase with its own self-generation, I set the GBL on the basis of current normal operations, as I did for all proponents. Looking at the mill's total generation for 2007, and netting out annual sales above load and purchases from FortisBC, the annual GBL was set at 349 GWh/year (or 40 MW).[87]

84. Celgar chose to submit a formal proposal in the Bio Phase I process on the basis of the annual GBL of 349 GWh/year (or 40 MW) on June 10, 2008.[88] This figure did not change in the final EPA, which was signed on January 27, 2009.[89]

85. In his witness statement, Mr. Merwin describes that Celgar was not satisfied with their GBL figure for the following reasons:

> Celgar's objections to BC Hydro's net-of-load approach to setting Celgar's GBL included: (1) BC Hydro was using our highest load and generation year ever; (2) Moreover, we were getting no recognition for our Blue Goose Project and the series of investments and improvements we had taken incrementally to increase power generation; (3) BC Hydro was not considering our existing energy sales and purchases. They measured our load, rather than the amount of self-generation we were using to meet our load, which was what the GBL was supposed to represent; (4) BC Hydro was including in Celgar's GBL calculation load that did not belong to Celgar. Celgar supplied drinking water with its pump station to the City of Castlegar, passing on at cost the electricity charges associated with pumping the water. This was essentially the City of Castlegar's

[87] Letter from RFP Administrator (Bioenergy Call - Phase I) to Brian Merwin Re: Bioenergy Call (Phase I) - GBL dated May 30, 2008, **R-181**; Celgar Data Chart, **R-182**. [redacted]. (see ¶¶ 62-63).

[88] BC Hydro Bioenergy Call for Power (Phase I) - Commercial Proposal, 9 June 2008, **R-128**.

[89] 2009 Celgar EPA, **R-135**. If Celgar had presented new evidence of changed circumstances suggesting the circumstances of 2007 were no longer representative of normal, this would have been considered. There were no such changes.

> load, not Celgar's. A similar situation existed with respect to an oxygen plant that recently had been located at the Celgar site. The oxygen plant was connected directly into Celgar's electrical system, and Celgar provided electricity at cost to them.[90]

86. As I explained to Mr. Merwin at the time with respect to the first two points, 2007 was the first full operating year for Celgar following completion of the Blue Goose efficiency improvement projects. The principles we applied when setting all GBLs under Bio Phase I included determining what is normal at the time of negotiations and in the absence of the prospective contract. Celgar's Blue Goose Project, which was geared toward enhancing pulping efficiencies, was undertaken in the normal course of business operations. Celgar did not need the incentive of an EPA to make that investment. Paying for electricity efficiencies resulting from that project would thus not fall within the parameters of Bio Phase I - it was not "incremental," but "existing" energy. We would be paying them for electricity they would have generated anyway, without an EPA, and getting nothing in return. BC Hydro was clear about the eligibility requirements of the call, and explained them to Mr. Merwin on several occasions. Moreover, in those discussions, Mr. Merwin confirmed that 2007 represented normal operations for Celgar going forward.

87. Contrary to the third objection raised by Mr. Merwin, BC Hydro looked at Celgar's total generation in 2007 (350,641 MWh), and determined the annual GBL to be lower than that (349,275 MWh).[91] At the time I noted that, on an annual basis in 2007, the mill was a net exporter of 1,366 MWh, having sold 23,926 MWh and purchased 22,560 MW/h.[92] Adjusting total generation for the net exports, I arrived at the annual GBL figure of 349 GWh (or 40 MW), which represents what the Celgar mill generates for self-supply in a normal operating year at the time of the negotiations. Mr. Merwin is therefore mistaken that I did not consider Celgar's energy sales and purchases.

88. Mr. Merwin repeatedly characterizes the method I used to set a GBL for an EPA with Celgar as applying a different "net-of-load" standard, implying that I applied a different principle

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[90] Witness Statement of Brian Merwin at ¶ 91.

[91] Letter from Brian Merwin to BC Hydro RFP Administrator, re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project and Celgar Green Energy Project, dated May 7, 2008 at 019774-5, **R-127**.

[92] Total Generation (350,641 MWh) – Net Exports (1,366MWh) = GBL (349,275 MWh), Celgar Data Chart, **R-182**.

in Celgar's case as compared to others. That is not correct. BC Hydro's objectives in entering into an EPA with Celgar were the same as for the EPAs it has entered into with its customers. I considered the same factors and applied the same principles when setting the GBL for every proponent in Bio Phase I and in subsequent calls, including Celgar. I examined historical generation data and evaluated what any given mill generates under current normal operating conditions, as well as the impact of existing commitments for their generation. The Celgar mill just happens to be the only mill that generates more electricity than its mill load under normal operations. The 349 GWh (or 40 MW) GBL set in the EPA is equal to Celgar's 2007 mill load for the reasons described above.

89. Moreover, as described above and as explained to Mr. Merwin at the time, the annual GBL figure was a gross number that could then be shaped and further adjusted to account for downtimes, like the ones that Mr. Merwin stated accounted for the mill's purchases of electricity from FortisBC, and its sales to FortisBC and NorthPoint. Celgar in fact proposed [redacted].[93] BC Hydro accepted this shape as proposed by Celgar, and it is reflected in the EPA.[94]

90. Finally, Mr. Merwin's fourth objection ignores that Celgar had the responsibility to submit the information that formed the basis for the GBL determination. In his May 7, 2008 letter, Mr. Merwin described briefly the oxygen plant that he now refers to in his witness statement, but made no mention of the water pumping station.[95] Celgar's obligations to supply electricity to the oxygen plant and water pumping station are ongoing obligations that Celgar ought to have disclosed in the registration form it submitted to BC Hydro on March 6, 2008. In any event, the loads of both the oxygen plant and the water pump station are included in the mill load information Celgar submitted, and are part of the mill's normal operations. Any adjustment to the GBL for these ongoing obligations of Celgar already reflected in the 2007 mill load data

[93] BC Hydro Bieoerngy Call for Power (Phase I) – Commercial Proposal, 9 June 2008, Appendix 3A at MER00015621, **R-128**.

[94] 2009 Celgar EPA, Appendix 2, Energy Profile at MER00012925, **R-135**.

[95] Letter from Brian Merwin to BC Hydro RFP Administrator, re: Zellstoff Celgar Limited Partnership ("Celgar") – Biomass Realization Project and Celgar Green Energy Project, dated May 7, 2008 at 019774, **R-127**.

would again amount to an incentive paid by BC Hydro for nothing in return. Celgar had already committed that energy to others.

91. BC Hydro has, in fact, been quite accommodating in our interactions with Celgar. As the company was not a customer of BC Hydro, it did not have a Key Account Manager. I offered to act as Celgar's unofficial Key Account Manager, providing them with a consistent point of contact throughout BioPhase I. When Mr. Merwin asked about DSM programs, while BC Hydro could not offer these programs to non-customers, I provided him with names of qualified consulting firms and individuals who have been recognized by BC Hydro's Power Smart Partner Alliance[96] and have been used by some of our customers. I also described some of the types of DSM projects that some of BC Hydro's industrial customers had been undertaking, including compressed air systems, pump systems and effluent systems. [redacted].[97]

F. THE GENERATOR BASELINE FOR THE SKOOKUMCHUCK MILL

92. The Skookumchuck mill was originally built in 1968 by Crestbrook Forest Industries ("Crestbrook") as a single line kraft operation, which it continued to operate until Tembec acquired the company in 1999.[98] After the acquisition, Tembec continued to operate the plant until 2013 when the site was sold to Paper Excellence, a subsidiary of Asia Pulp and Paper.[99]

93. The Skookumchuck mill is connected to the BC Hydro system, is a BC Hydro customer, and continues to operate as a single line kraft operation. It has three boilers: (a) a recovery boiler that combusts black liquor; (b) a hog fuel power boiler ("hog boiler") that was commissioned for

[96] BC Hydro's Power Smart Partner Alliance is a network of independent electrical and mechanical professionals who work with BC Hydro's industrial customers to identify and implement energy efficiency solutions. For more information, see Power Smart Alliance, online: <https://www.bchydro.com/powersmart/trade_alliance.html>.
[97] Email from Gail McBride to Lester Dyck re: Support letter for Celgar pulp mill demo project, dated October 20, 2009, **R-183.**

[98] Tembec Press Release, *Tembec to sell its NBSK pulp mill in Skookumchuck British Columbia*, 26 March 2013, **R-184**.

[99] Tembec Press Release, *Tembec to sell its NBSK pulp mill in Skookumchuck British Columbia*, 26 March 2013, **R-184**.

the purpose of a 1997 EPA with BC Hydro and installed in 2001; and (c) a natural gas power boiler that was idled after the hog boiler came online in 2001. It also has two steam turbine generators, STG1 with a 15 MW nameplate capacity, and STG2 with a nameplate of 43.5 MW. STG1 was idled when STG2 came online in 2001, and is available for emergency and backup purposes only.

1. The 1997 EPA

94. It is my understanding based on review of the documents referenced here, that in December 1994, BC Hydro issued a Request for Proposals ("1994 RFP") for the supply of electricity to the BC Hydro integrated system [redacted].[100] Through the 1994 RFP, BC Hydro was seeking electricity from independently generated sources,[101] and received forty-eight bids from independent power producers ("IPP") before the competition deadline of March 15, 1995.[102]

95. It is my understanding based on conversations with staff in the KAM division, the contract manager in the Power Acquisition group and staff at the Skookumchuck mill, as well as reviewing the contract and other documents, that Purcell Power Corp. ("Purcell Power") submitted a proposal to BC Hydro under the 1994 RFP.[103] Purcell Power was jointly created by the then-owner of the Skookumchuck mill, Crestbrook, and an engineering company, Stothert Power Co. ("Stothert"), to carry out the Purcell Power Project (the "Project"). Under the Project,

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[100] Board Resolution, Purcell Power Project Supplementary Agreement to a Key Principles of General Agreement, **R-185**.

[101] Letter from K.S. Lail to Art Hein, Re: 1994 RFP Purcell Power Project, dated April 22, 1996, **R-186**. *See also* Report of the Independent Power Producers Review Panel, 27 August 1996 at 2, **R-187**: "The justification for the RFP was more the broadly-based identification and development of provincial economic opportunities than the narrowly-based satisfaction of power supply requirements for the BC Hydro system."

[102] Of the bids, thirteen were biomass projects. The others were from gas, small hydro and geothermal projects: *see* Report of the Independent Power Producers Review Panel, 27 August 1996 at 2-3, **R-187**, for a timeline and overview of the RFP.

[103] It was announced on August 30, 1995 that the Purcell Power Project proposal had been selected by BC Hydro for placement on the RFP short list, and on April 15, 1996, the Premier at the time directed BC Hydro to begin negotiations to purchase electricity from the Purcell Power Project at Skookumchuck: Board Resolution, Purcell Power Project Supplementary Agreement to a Key Principles of General Agreement, **R-185**; Letter from K.S. Lail to Art Hein, Re: 1994 RFP Purcell Power Project, dated April 22, 1996, **R-186**.

Purcell Power proposed to finance a condensing turbine generator ("STG2"). The primary purpose of STG2 would be to meet any firm delivery obligation under an EPA with BC Hydro. Under the Project, Purcell Power also proposed to commission a new hog boiler and shut down its existing natural gas power boiler.

96. BC Hydro concluded an EPA with Purcell Power on September 5, 1997 (the "1997 EPA") to incentivize the joint venture's proposed investments and the generation of new electricity into BC Hydro's system. This was the first time in British Columbia that a pulp mill entered into an EPA with BC Hydro. The EPA was signed four years before BCUC Order G-38-01 and thus, unlike more recent EPAs which adopted the GBL approach, the 1997 EPA did not require the Skookumchuck mill to serve part of its mill load with self-generation before selling electricity to BC Hydro.

97. While the EPA was signed in 1997, investment in the new hog boiler and STG2 was not complete until 2001 and thus the Commercial Operation Date ("COD") of the EPA did not occur until September 2001. Tembec amalgamated with Crestbrook during this time, and acquired the Skookumchuck mill, along with the 1997 EPA. Tembec installed a bigger STG2 than originally contemplated by Purcell Power (43.5 MW instead of 14 MW) to meet the demands of the 1997 EPA, and idled STG1.

98. BC Hydro also concluded an ESA with Tembec in 2001.[104] The EPA operated in conjunction with the ESA [redacted].[105] [redacted]

[104] Appendix to Electricity Supply Agreement between British Columbia Hydro and Power Authority and Tembec Industries Inc. ("Determination of Electricity Supplied and Taken Under RS 1821/1880"), 14 September 2001, **R-188.**

[105] Appendix to Electricity Supply Agreement between British Columbia Hydro and Power Authority and Tembec Industries Inc. ("Determination of Electricity Supplied and Taken Under RS 1821/1880"), 14 September 2001, **R-188**; Inter-office Memo from David G. Keir to Lester Dyck, Frank Lin, Sylvia von Minden, CBL Governance Team Re: Tembec Skookumchuck Pulp Operations - CBL/GBL/EPA Analysis, dated April 8, 2009 at 037395-6, **R-189**

[redacted].[106]

99. The 1997 EPA had a 20-year term, but could be unilaterally terminated by Crestbrook after 10 years.[107] [redacted].[108]

2. Tembec's 2009 Shutdown Event

100. At the time of [redacted], hog fuel [redacted] prices ranging roughly between $10 - $20/MWh.[109] Between 2001 and 2007, the average price for electricity under the 1997 EPA was approximately [redacted].[110] By 2008, however, hog fuel became scarce as a result of the downturn in the forestry industry. In 2009, hog fuel prices

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[106] *See* Electricity Purchase Agreement between Purcell Power Corp. and BC Hydro, 5 September 1997, s. 7 at bates 016977, **R-190**.

[107] Electricity Purchase Agreement between Purcell Power Corp. and BC Hydro, 5 September 1997, s. 2.1 at bates 016971, **R-190**. [redacted] (see bates 016991).

[108] Electricity Purchase Agreement between Purcell Power Corp. and BC Hydro, 5 September 1997, ss. 2.5 and 15.1 at bates 016972, 016986 **R-190**.

[109] Inter-office Memo from David G. Keir to Lester Dyck, Frank Lin, Sylvia von Minden, CBL Governance Team Re: Tembec Skookumchuck Pulp Operations - CBL/GBL/EPA Analysis, dated April 8, 2009 at bates 037397, **R-189**.

[110] [redacted]: Inter-office Memo from David G. Keir to Lester Dyck, Frank Lin, Sylvia von Minden, CBL Governance Team Re: Tembec Skookumchuck Pulp Operations - CBL/GBL/EPA Analysis, dated April 8, 2009 at bates 037396, **R-189**.

were ranging from $45/MWh to $80/MW.[111] I understand, based on discussions with Key Accounts Managers and others at BC Hydro who were involved, [redacted].[112]

101. [redacted] in March 2009, Tembec made the decision to temporarily shut down the mill and electricity generation.[113] [redacted].[114]

3. The 2009 EPA

102. If Tembec terminated the 1997 EPA and stopped producing power as a result of high fuel costs, [redacted].[115] [redacted].

103. BC Hydro viewed this as an attractive opportunity to "(a) recover the remainder of the energy and price commitments from the existing EPA, (b) contract additional long-term clean and renewable energy for a cost-effective fixed price, and (c) ensure Tembec was committed to

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[111] Inter-office Memo from David G. Keir to Lester Dyck, Frank Lin, Sylvia von Minden, CBL Governance Team Re: Tembec Skookumchuck Pulp Operations - CBL/GBL/EPA Analysis, dated April 8, 2009 at bates 037397, **R-189**.

[112] Inter-office Memo from David G. Keir to Lester Dyck, Frank Lin, Sylvia von Minden, CBL Governance Team Re: Tembec Skookumchuck Pulp Operations - CBL/GBL/EPA Analysis, dated April 8, 2009 at bates 037397, **R-189**. [redacted].

[113] Inter-office Memo from David G. Keir to Lester Dyck, Frank Lin, Sylvia von Minden, CBL Governance Team Re: Tembec Skookumchuck Pulp Operations - CBL/GBL/EPA Analysis, dated April 8, 2009 at bates 037397, **R-189**.

[114] Email from Matt Steele to Kevin Wallace, Norman Wild, Lester Dyck *et al*. Re: Information for Tembec Meeting, dated March 16, 2009, **R-191**.

[115] Appendix to Electricity Supply Agreement between British Columbia Hydro and Power Authority and Tembec Industries Inc. ("Determination of Electricity Supplied and Taken Under RS 1821/1880"), 14 September 2001, **R-188.**

serving part of its on-site industrial load with self-generation"[116] after the obligations of the 1997 EPA were no longer in force.

104. Tembec proposed to amend the 1997 EPA to increase its firm energy deliveries from 10.8 MWh/h to 24.4 MWh/h with a [redacted] price paid by BC Hydro in line with other more recent EPAs that it had signed. Rather than amending the 1997 EPA, BC Hydro proposed to Tembec that the terms and conditions from Bio Phase I be incorporated into a new, replacement EPA. This form of commercial arrangement better reflected the appropriate risk allocation, the regulatory environment since BCUC Order G-38-01, and relevant terms from a recent acquisition process. Tembec agreed to the arrangement.

105. Consistent with the terms of Bio Phase I, the new EPA required the establishment of a GBL, which would represent the amount of electricity the Skookumchuck mill would generate to meet the energy demand of the mill's industrial load under current normal operating conditions and in the absence of the 1997 EPA, which was coming to an end. I was directly involved in the determination of an annual GBL for the new EPA.

106. Tembec was the only case where I had to determine a GBL where the customer's historical plant and generation operation data reflected (1) the influence of a major pre-existing contract that was now coming to an end, and (2) [redacted].The obligations in the existing contract were about to disappear, [redacted].

107. For the purposes of setting a GBL under these circumstances, the parties determined that, in normal operations, Tembec [redacted]

[116] Justification Report, Tembec EPA Replacement for Incremental Energy Sales from Purcell Power Plant at bates 152596, **R-192**.

[redacted]. The parties agreed that [redacted] current normal mill operations at the time of negotiating the new EPA. The parties initially [redacted]. The level of generation would vary based on the efficiencies of the chosen generating unit for the same amount of steam.

108. [redacted].[117] Without the 1997 EPA's obligations, it argued, [redacted].[118] [redacted].[119]

109. [redacted].[120] [redacted]

[117] [redacted]. Email from Chris Lague to Matt Steele re: Tembec Skookumchuck site GBL calculations, dated March 10, 2009, **R-193**; Email from Chris Lague to Norman Wild re: Skookumchuck Steam Balances and expanded exhibit 4 of GBL document, dated March 31, 2009, **R-194**; Thermal Energy Balance – Summer, **R-195**; Thermal energy balance – winter, **R-196**; Expanded exhibit 4 of the GBL document issued, 10 March 2009, **R-197**.

[118] Email from Chris Lague to Matt Steele re: Tembec Skookumchuck site GBL calculations, dated March 10, 2009 at bates 020997, **R-193**.

[119] Email from Chris Lague to Matt Steele re: Tembec Skookumchuck site GBL calculations, dated March 10, 2009 at bates 020999, **R-193**.

[120] Inter-office Memo from David G. Keir to Lester Dyck, Frank Lin, Sylvia von Minden, CBL Governance Team Re: Tembec Skookumchuck Pulp Operations - CBL/GBL/EPA Analysis, dated April 8, 2009 at bates 037398, **R-189**.

[redacted].[121] Tembec agreed and we negotiated an EPA on that basis.

110. In his report, Mr. Switlishoff suggests that Tembec's [redacted] was "based on a completely hypothetical analysis of how much electricity the pulp mill might have generated in 2001 absent the 2001 Skookumchuck EPA, but with the more efficient STG2 as a replacement for the then-ageing STG1," and that [redacted][122] He is mistaken. As explained above, [redacted].

111. Once BC Hydro and Tembec settled on an annual GBL figure of 14 MW/hr (122.6 GWh/year),[123] [redacted]

[121] Inter-office Memo from David G. Keir to Lester Dyck, Frank Lin, Sylvia von Minden, CBL Governance Team Re: Tembec Skookumchuck Pulp Operations - CBL/GBL/EPA Analysis, dated April 8, 2009 at bates 037398, **R-189**.

[122] Expert Report of Elroy Switlishoff at ¶ 164.

[123] BC Hydro and Tembec Electricity Purchase Agreement, 13 August 2009, Appendix A, Definitions at bates 017071, **R-198**. The EPA contained provisions to phase out the 1997 EPA, maintaining the energy prices for energy committed under the 1997 EPA until its termination in 2011: *see* Justification Report, Tembec EPA Replacement for Incremental Energy Sales from Purcell Power Plant at 152597-8, **R-192**.

[redacted] .

112. As was the case for all proponents in Bio Phase I, Tembec proposed a shape for its [redacted] GBL, which BC Hydro then accepted. In choosing the particular shape that it did ([redacted]), Tembec again assumed the risk of ensuring that the mill was generating sufficient levels to meet its [redacted] firm obligations [redacted].[124] In every case, there is a risk in taking a lower hourly or daily GBL because the mill will have less flexibility to make up any shortfalls and to meet the firm energy commitment. This is more difficult to do on an [redacted] basis than on a seasonal basis because there is less time to "catch up." A seasonal GBL target thus offers more flexibility to meet the firm energy commitments.

113. While a shape like the one chosen by Tembec was open to all proponents, it was not a choice that all proponents made. It was not a choice that Celgar made, based on its own assessments.

114. Mercer argues in its Memorial that the 2009 EPA permitted Tembec to increase its purchases of electricity from BC Hydro to facilitate sales of self-generated electricity at market rates. Mercer states that, "BC Hydro submitted energy flow diagrams to the BCUC as part of its Justification Report for the EPA that appeared to show that Tembec's access to embedded cost power would decline under the new EPA".[125]

115. Mercer's argument and its interpretation of the Justification Report are not correct. Tembec's increase in electricity purchases did not arise from or facilitate arbitrage. Rather, it arose because of the changing circumstances that affected the mill's normal operations. [redacted]

[124] BC Hydro and Tembec Electricity Purchase Agreement, 13 August 2009, Appendix 2, Energy Profile at bates 017088, **R-198**.

[125] Mercer's Memorial ¶¶ 529-535, 602-608. The basis for Mercer's allegation appears to be no more than the words "typically up to 14 MW" in the Justification Report. *See* Justification Report, Tembec EPA Replacement for Incremental Energy Sales from Purcell Power Plant at 152604, **R-192**.

[redacted]. It is misguided to compare, as Mercer does, the level of Tembec's generation and purchases from BC Hydro under the 1997 EPA when hog fuel was cheap to the level of its purchases in the subsequent era of high prices for hog fuel. Under the prevailing high prices for hog fuel in 2008/09, and in the absence of contract incentive payments to generate additional electricity: [redacted]. There was no harm to ratepayers.

116. Mercer misunderstands the Justification Report for the Skookumchuck 2009 EPA. The Justification Report does not indicate a decrease in Tembec's energy purchases from BC Hydro; indeed it does not provide Tembec's actual historical energy purchases. [redacted].[126] I discuss the accounting that was used to determine Tembec's energy purchases under the 1997 EPA in paragraph 98, above. As discussed above, normal operating conditions for Skookumchuck changed significantly due to the increase in hog fuel prices. [redacted].

117. The GBL for the new EPA was determined on that basis: it was set at the level of self-generation the Skookumchuck mill would make under then current normal operating conditions ([redacted]

[126] Mercer's Memorial ¶ 533.

[redacted]).[redacted]

118. Finally, the cost-effectiveness of the incremental energy to be purchased under the 2009 EPA is demonstrated by comparing the price negotiated with Tembec with the prices paid under the Bio Phase I call. It is my understanding, based on discussions with Power Acquisitions staff and review of various documents, that the lowest price award in that call was approximately [redacted]/MWh.[127] The new EPA incorporates the carryover of the remaining energy obligation from the 1997 EPA and the purchase of new incremental energy from Tembec. Energy owed from the 1997 EPA was priced at the 1997 EPA price of [redacted] /MWh while the new incremental energy was priced just below the lowest EPA price from the Bioenergy Phase 1 Call. The blended price for all of the energy received under the new EPA was, therefore, [redacted]/MWh.

G. GENERATOR BASELINES IN THE INTEGRATED POWER OFFER

119. On June 17, 2009, Natural Resources Canada ("NRCan") launched the Pulp and Paper Green Transformation Program ("PPGTP"), a program to fund innovation and investment in pulp and paper mills in Canada.[128] Around the same time, BC Hydro launched the Integrated Power Offer ("IPO") for customers who received PPGTP funds, offering a combination of DSM programs and EPAs.[129] I understand that Jim Scouras discusses the PPGTP and IPO in greater detail in his witness statement.

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[127] As shown in the Bioenergy Call Phase I RFP report, the lowest adjusted bid price for an awarded EPA was $107/MWh (2008 dollars). The cited $109/MWh figure is based on $107/MWh plus one year of inflation. *See* BC Hydro, Report on Bioenergy Call Phase I Request for Proposals, 17 February 2009 at bates 150609, **R-170**

[128] Natural Resources Canada, "Pulp and Paper Green Transformation Program: Mission accomplished", 3 March 2014, **R-60**.

[129] BC Hydro, "Integrated Power Offer for Pulp & Paper Customers", **R-56**.

120. Similar to the Bio Phase I call for power, only new or incremental energy was eligible for sale under the IPO. For proponents with existing self-generation, a GBL was a requirement of the call.

121. Between September 2010 and April 2013, BC Hydro entered into IPO agreements with six participating pulp and paper companies. Howe Sound is a customer of BC Hydro and concluded an EPA with BC Hydro under the IPO.

1. Howe Sound's Green Energy Project under NRCan's PPGTP

122. Howe Sound operates a pulp and paper mill at Port Mellon, BC, which is on the west side of Howe Sound, approximately 15 km north of the Georgia Strait. Howe Sound is connected to the BC Hydro system and is a BC Hydro customer. Howe Sound completed a modernization and expansion project in the 1990s, and is today a very large, integrated operation with kraft pulp, thermo-mechanical pulp ("TMP"), and paper facilities.

123. Howe Sound has a recovery boiler, a power boiler, and two turbines: one back pressure extraction turbine and one turbine with both extraction and condensing capability. The electric load of the entire mill is [redacted] MW, of which its kraft mill comprises [redacted] and its TMP mill comprises [redacted] MW.[130]

124. I understand based on my experience with the Howe Sound mill, and discussions with Howe Sound's Key Accounts Manager and staff at the Howe Sound facility that, [redacted]

[130] Fominoff Statement, ¶ 14. The mill's generation equipment was installed in conjunction with a Generation Agreement concluded between Howe Sound and BC Hydro in 1989. Under this agreement, BC Hydro provided Howe Sound with a [redacted] loan to build the generation equipment, in exchange for which Howe Sound agreed to generate [redacted] for a period of [redacted]. Howe Sound repaid the loan fully in [redacted] *See*: Generation Agreement between BC Hydro and Howe Sound Pulp and Paper Limited, 1 October 1989, **R-64**; Termination Agreement between HSPP and BC Hydro, 7 September 2010, **R-73**; Briefing Note, Howe Sound Pulp and Paper (HSP) Generation Agreement Termination, 16 February 2010 at bates 0143051, **R-199**; Summary of HSP EPA: Key Negotiation Issues, 22 March 2010 at bates 163022, **R-65**.

[redacted][131]

125. On March 31, 2010, Howe Sound submitted a proposal under NRCan's PPGTP to, among other things, rebuild the existing power boiler ("Green Energy Project").[132] The objective of Howe Sound's project was to [redacted][133] With increased steam production, Howe Sound would be able to generate additional electrical power using the two existing generators.

126. On August 28, 2009, I and other BC Hydro personnel held an introductory customer meeting with Howe Sound officials to discuss the IPO and possible PPGTP funds and to explore the opportunities for both Howe Sound and BC Hydro arising from these two programs.[134] BC Hydro and Howe Sound signed a Letter of Intent on November 6, 2009, which outlined the terms on which the parties were prepared to negotiate an EPA as well as terms related to identified energy efficiency projects.[135] Like the Bio Phase I EPAs and all other IPO EPAs, an annual GBL was required to determine the category of incremental generation Howe Sound was eligible to sell annually. I have knowledge of the setting of Howe Sound's GBL for the IPO because I was involved at the time in discussions with Scott Janzen, the Key Accounts Manager for Howe Sound, who reports to me, as well as with staff from BC Hydro's Engineering group and Howe Sound. I approved the methodology Scott Janzen and the others developed to set the GBL, and I authorised Scott to present to Howe Sound the GBL we determined for them for the IPO.

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[131] Fominoff Statement, ¶ 16.

[132] Howe Sound IPO Project Submission document, **R-200**. The Howe Sound Green Energy Project had capital costs of approximately [redacted] million, which were [redacted] funded by Natural Resources Canada under its Green Transformation Program.

[133] Howe Sound IPO Project Submission document at bates162133, **R-200**. At the time of its submission, the boiler was operating at steam flow levels of [redacted].

[134] Integrated Power Offer Meeting Summary, 28 August 2009, **R-61**.

[135] Letter from BC Hydro Power Authority to Fred Fominoff dated, dated November 6, 2009, **R-63**.

a) The GBL in Howe Sound's 2010 EPA

127. Howe Sound and BC Hydro reviewed historical generation data for the purposes of setting an appropriate GBL. In assessing the data to determine current normal operations at the time of the EPA negotiation, [redacted].[136]

128. The parties looked first to the most recent full year of operations at the time of the negotiations - as BC Hydro and Celgar did in their GBL negotiations. For Howe Sound, that year was [redacted]. I understand based on my conversations with Scott Janzen that Howe Sound initially proposed that [redacted]. We did not, however, believe that a GBL [redacted]. Howe Sound agreed that [redacted].

129. Looking beyond [redacted]. For this reason, the parties agreed to calculate [redacted]. Both BC Hydro and Howe Sound agreed that [redacted]

[136] [redacted].

[redacted].[137] [redacted]
[redacted].[138]

130. In order to arrive at a GBL that reflects normal operations, we made an adjustment [redacted] to account for [redacted].[139] [redacted]. Indeed, Howe Sound would [redacted].

131. During negotiations, Howe Sound also raised concerns about [redacted].[140] This meant that Howe Sound

[137] Howe Sound Pulp and Paper LP, Generation Baseline Calculations, 1 August 2006 to 31 July 2009, **R-66**. The data in the table was produced by the Key Accounts Manager responsible for Howe Sound's account (Scott Janzen), with Howe Sound's assistance and input. *See also* Email from Scott Janzen to Lester Dyck, Re: HSPP GBL, November 3, 2010, **R-67**; Howe Sound Pulp and Paper, GBL Overview Presentation to the CBL Governance Committee, August 3, 2011, **R-201.**

[138] Howe Sound's generation production across the [redacted]

[139] [redacted]. *See* Howe Sound Pulp and Paper LP, Generation Baseline Calculations, 1 August 2006 to 31 July 2009, **R-66**.

[140] [redacted]. *See* email from Scott Janzen to Fred Fominoff re: GBL, dated June 24, 2010, **R-70**.

[redacted].[141]

132. The annual GBL figure set with Howe Sound for the purposes of the 2010 EPA was [redacted] GWh/year (or an average of [redacted] MW).[142] [redacted].

H. TRANSMISSION SERVICE RATE GBL INFORMATION REPORT

133. On November 27, 2009, the BCUC issued letter No. L-106-09,[143] suggesting that it may be "helpful and timely to develop guidelines for the establishment of GBL's".[144] To that end, it requested that BC Hydro include draft guidelines for the determination of GBLs as part of either its next major EPA filing involving GBLs, or its next Long Term Acquisition Plan ("LTAP") filing.[145] The BCUC's letter included a list of 20 questions to be addressed in the draft GBL guidelines.

134. On July 27, 2011, BC Hydro wrote to the BCUC to update it on the progress of the draft guidelines.[146] BC Hydro explained that it had not had an opportunity to make a major EPA filing or to file an LTAP since the BCUC issued letter L-106-09,[147] and set out its plan to file tariff

[141] I understand from discussions with Judy Baum that, in the Bio Phase I EPAs, [redacted]

[142] BC Hydro and Howe Sound Pulp and Paper Limited Partnership Electricity Purchase Agreement, Integrated Power Offer, September 7, 2010, at Appendix 1, Definition 5 ("Annual GBL") at bates 016422, **R-62.**

[143] L-106-09, Letter from Constance Smith to Joanna Sofield Re: BC Hydro Electricity Purchase Agreements - Generator Baselines, dated November 27, 2009, **R-202**.

[144] L-106-09, Letter from Constance Smith to Joanna Sofield Re: BC Hydro Electricity Purchase Agreements - Generator Baselines, dated November 27, 2009 at 2, **R-202**.

[145] L-106-09, Letter from Constance Smith to Joanna Sofield Re: BC Hydro Electricity Purchase Agreements - Generator Baselines, dated November 27, 2009 at 2, **R-202**.

[146] Letter from Janet Fraser to Alanna Gillis Re: BCUC, BC Hydro Generator Baseline Guidelines, dated July 27, 2011, **R-203**.

[147] BC Hydro has not made a major EPA or LTAP filing with the BCUC primarily because the Provincial Government had, after L-106-09 was issued, passed the *Clean Energy Act*, SBC 2010, c 22, s. 1(1), **R-154**, which

documents that would reflect its established business practices for transmission service rate customers with self-generation facilities.[148] Specifically, BC Hydro planned to file: (1) CBL Determination Guidelines specifically for transmission service customers with self-generation, including CBL Determination Guidelines for customers that begin making deliveries to BC Hydro under an EPA;[149] and (2) an information report detailing the principles underlying the setting of GBLs, GBL setting considerations for EPA customers, and a response to the BCUC's 20 questions set out in Letter L-106-09. BC Hydro filed the latter with the BCUC for information purposes on June 20, 2012.[150] I will refer to this document as "the Information Report."

135. The Information Report contains a description of the economic and policy context surrounding the setting of GBLs, the role of the GBL in preventing arbitrage, and the factors that BC Hydro considers when setting GBLs. It states that "the primary purpose of a contracted GBL is to mitigate the risk of arbitrage that arises if BC Hydro is selling electricity to a customer while, at the same time, the customer is selling electricity to BC Hydro"[151] and that the objective of the GBL setting process is always "to determine the annual self-generated energy used by the customer for self-supply, in the absence of a contract, in a normal current operating year, as of the time period the EPA is negotiated."[152]

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exempted BC Hydro from the provisions of the *Utilities Commission Act*, RSBC 1996, c 473, **R-155**, relating to the filing of LTAPs and the filing and review of certain energy supply contracts arising from specified acquisition processes.

[148] Letter from Janet Fraser to Alanna Gillis Re: BCUC, BC Hydro Generator Baseline Guidelines, dated July 27, 2011 at bates 002626, **R-203**.

[149] These tariff documents (Tariff Supplement No. 74 Attachment B Guidelines) were filed with the BCUC on November 2, 2012, and approved by Order No. G-19-14 on February 14, 2014: *see* BCUC Order No. G-19-14, BC Hydro Application to Amend Tariff Supplement No. 74, Customer Baseline Load Determination Guidelines for RS 1823 Customers with Self-Generation, **R-204**.

[150] Letter from Janet Fraser to Erica Hamilton Re: BCUC BC Hydro Transmission Service Rate (TSR) Customer Generator Baselines (GBLs) Information Report, dated June 20, 2012, **R-177**.

[151] Letter from Janet Fraser to Erica Hamilton Re: BCUC BC Hydro Transmission Service Rate (TSR) Customer Generator Baselines (GBLs) Information Report, dated June 20, 2012 at 14, **R-177**.

[152] Letter from Janet Fraser to Erica Hamilton Re: BCUC BC Hydro Transmission Service Rate (TSR) Customer Generator Baselines (GBLs) Information Report, dated June 20, 2012 at 16, **R-177**.

136. The Information Report states that the GBL setting process does not follow a prescriptive "one-size fits all" formulaic approach,[153] but that the negotiating parties will consider "a number of economic, technical, and operational factors in establishing the contracted GBL in the context of the customer's normal operations."[154] It explains that:

> The foundational information is the customer's self-generation output, industrial plant load and BC Hydro consumption data in recent years. However, in and of itself, this information may not tell the whole story. As noted, the data and information typically must be "normalized" by taking into account the specific circumstances of each customer.[155]

137. The Information Report then lists a set of illustrative examples that BC Hydro considers when setting a GBL in the context of negotiating an EPA:

- Relationship between the customer's industrial production process and its self-generation;
- Thermal balance requirements of the industrial plant;
- Fuel type, supply and costs;
- Customer's historical sales of electricity to BC Hydro or others;
- Type, age and efficiency of the customer's generator;
- Changes in control, ownership or management that may affect the operation of the customer's plant and/or self-generation;
- Abnormal events such as events of force majeure; and
- Market conditions, including abnormal market curtailment events.[156]

138. It also recognizes that "normal" in the context of setting a GBL:

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[153] Letter from Janet Fraser to Erica Hamilton Re: BCUC BC Hydro Transmission Service Rate (TSR) Customer Generator Baselines (GBLs) Information Report, dated June 20, 2012 at 15, **R-177**.

[154] Letter from Janet Fraser to Erica Hamilton Re: BCUC BC Hydro Transmission Service Rate (TSR) Customer Generator Baselines (GBLs) Information Report, dated June 20, 2012 at 16, **R-177**.

[155] Letter from Janet Fraser to Erica Hamilton Re: BCUC BC Hydro Transmission Service Rate (TSR) Customer Generator Baselines (GBLs) Information Report, dated June 20, 2012 at 16, **R-177**.

[156] Letter from Janet Fraser to Erica Hamilton Re: BCUC BC Hydro Transmission Service Rate (TSR) Customer Generator Baselines (GBLs) Information Report, dated June 20, 2012 at 17, **R-177**.

> means what is normal in the context of the time period during which the EPA is being negotiated. For example, if an EPA is being negotiated in 2012, industrial plant production and power generation data from the 1980s will not be given weight in determining what is normal in 2012. Data from 2008 to 2012 is much more likely to reflect normal operating conditions in 2012. However, even then, it is important to consider whether or not, for example, economic conditions or other factors specific to the customer during that time period 2008 to 2012 were normal. This again demonstrates the importance of applying professional expertise, and input from the customer, in establishing the contracted GBL for the customer.[157]

139. The Information Report also explains BC Hydro's practice of "shaping" annual GBLs into seasonal, monthly or hourly periods, depending on the nature of the firm energy product acquired under the EPA and the proposal submitted by the proponent. For EPAs with self-generation customers, the sum of the seasonal, monthly or hourly GBLs must equal the annual GBL.[158]

140. I participated in the drafting of the Information Report. While this was the first time that BC Hydro had explained its GBL setting process in writing in detail to the BCUC, there is nothing in the Information Report that would come as a surprise to any self-generator who negotiated a GBL with BC Hydro. All factors and considerations addressed in the report were discussed with every self-generator who negotiated a GBL with BC Hydro, including the Celgar mill.

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[157] Letter from Janet Fraser to Erica Hamilton Re: BCUC BC Hydro Transmission Service Rate (TSR) Customer Generator Baselines (GBLs) Information Report, dated June 20, 2012 at 16, **R-177**.

[158] Letter from Janet Fraser to Erica Hamilton Re: BCUC BC Hydro Transmission Service Rate (TSR) Customer Generator Baselines (GBLs) Information Report, dated June 20, 2012 at 15, **R-177**.

141. I affirm that the information provided above is true and correct.

SWORN BEFORE ME at the City of Vancouver, in the Province of British Columbia, this 21st day of August, 2014.

A Commissioner for taking Affidavits for British Columbia

Lester Dyck

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