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Before the

ADDITIONAL FACILITY OF THE
INTERNATIONAL CENTRE FOR SETTLEMENT OF INVESTMENT
DISPUTES

Mercer,

Claimant,

v.

Canada,

Respondent.

ICSID Case No. ARB(AF)/12/3

SECOND EXPERT STATEMENT OF
ELROY SWITLISHOFF, P.ENG., M.ENG

10 DECEMBER 2014

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Second Expert Statement of Elroy Switlishoff, P.Eng., M.Eng.

I. The Nature of Physical and Contractual Flows of Electricity

1. Canada's inability to understand Mercer's perspective in this claim is perhaps grounded in the confusion Canada has created, as demonstrated by flawed understandings described in its Counter Memorial, understandings which are directly contradicted by Canada's own witnesses.

2. Canada's first flawed understanding concerns the characteristics of physical and contractual electricity flow, and is immediately apparent in Canada's statement that Celgar believed it could "purchase more electricity from FortisBC, its local utility, at low-cost regulated rates and then sell it as if it were its own 'self-generated' electricity."¹ This is followed by the claim that "{i}t would then pretend that this electricity was its own 'self-generated' electricity so that it could sell it at a higher price. In reality, the Claimant's self-generated electricity would continue to serve its pulp mill—as it always had."

3. The actual reality of the situation is that electrons will physically flow along the path of least resistance, which in normal circumstances is from the point of generation to the nearest load. The laws of physics dictate that it can be no other way. Any other "flow" of electrons, such as an electricity sales agreement or a market electricity transaction, is a deemed flow, for which accounting, metering, and scheduling mechanisms must necessarily exist to accommodate the difference between the physical reality dictated by the laws of physics, and

¹ Counter-Memorial, ¶¶ 1-2.

the contractual reality upon which both the wholesale and retail electricity markets are based. This is true for every interconnected electrical system.

4. BC Hydro necessarily accommodates the accounting and metering mechanisms that enable deemed flows to be transacted. For example, in the case of Tembec's 1997 EPA, in which <<

[REDACTED]

None would flow to BC Hydro's transmission system.

5. The accounting and metering mechanisms that enable deemed flows to be transacted are described by both Mr. Swanson² and Mr. Dyck,³ and further confirmed by the description provided by Mr. Scouras.⁴ The characterization of such mechanisms by Canada as an "elaborate buy-and-sell scheme"⁵ shows either a naïve understanding of electricity markets, or an attempt to cast aspersions regarding Celgar's objectives in the treatment of its self-generation. It has no basis in the real-world manner in which wholesale power sales contracts are negotiated.

6. Canada's witnesses usefully explain that simultaneous purchases and sales involving no net flow of electricity are the *status quo* with respect to the normal operation of self-generators that also have electrical loads "behind the meter". As shown in the diagram below, the electricity customer typically has a single point or collection of points where the net

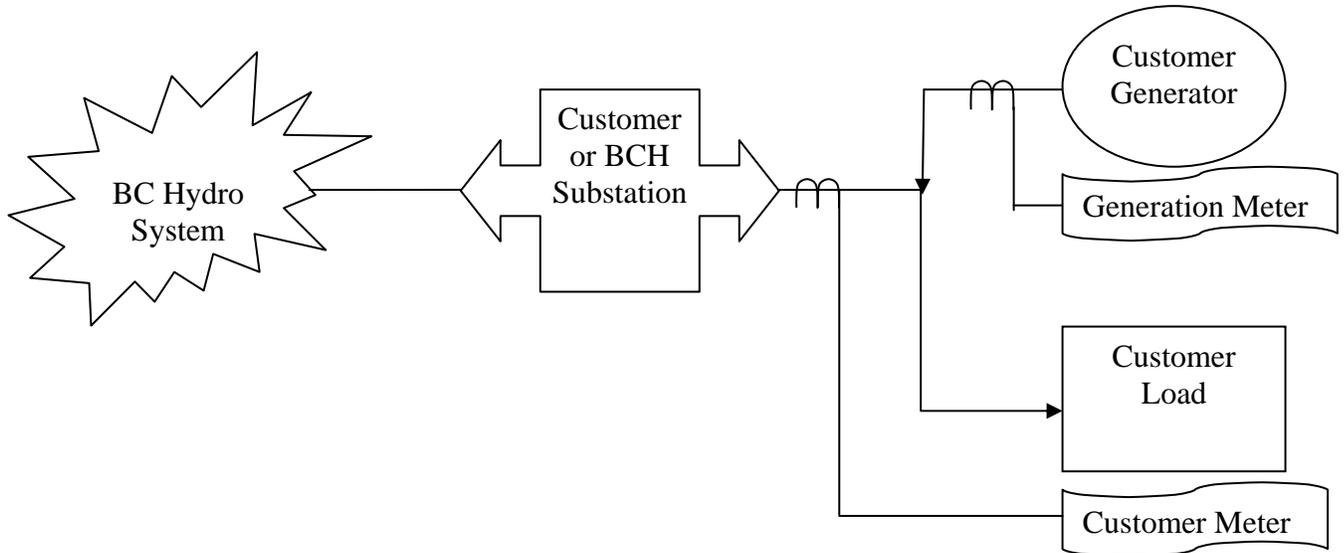
² Swanson Witness Statement, ¶ 48.

³ Dyck Witness Statement, ¶¶ 29, 30.

⁴ Scouras Witness Statement, ¶ 63.

⁵ Counter-Memorial, ¶¶ 1-2.

flow of electricity is measured. All electricity self-generators with an EPA with BC Hydro are required also to measure the electricity directly *at the output of the generator*. It is only this electricity that can be sold, and it is only this electricity that Celgar ever contemplated to sell. However, if the customer load is greater than the self-generation amount, there will still be net electricity flow to the customer from BC Hydro.



7. BC Hydro not only allows the accounting and metering mechanisms that enable deemed flows to be transacted, but also it necessarily relies on them. Using the 2009 Tembec EPA as an example, I note that << [REDACTED] >>.⁶ It is unusual for a utility to permit deemed power flows to exceed the capability of the underlying infrastructure.

Nevertheless, BC Hydro has permitted Tembec to sell it more electricity than Tembec even is

⁶ C-145, BC Hydro and Tembec Electricity Purchase Agreement (13 August 2009) accompanying Letter from Joanna Sofield, Chief Regulatory Officer, BC Hydro, to Erica M. Hamilton, Commission Secretary, BCUC (28 October 2009) (“2009 Tembec EPA”); EPA Appendix 2, Part I – Hourly Firm Energy Profile; EPA Schedule 2: BCTC Report No. SPPA2008-44, page 1 of 6.

physically capable of delivering to it. The only way that this firm hourly obligation could be satisfied is through an accounting mechanism that allows Tembec to use its self-generated electricity physically to supply its mill load while simultaneously “deeming” that amount of electricity to be both sold to BC Hydro to service the firm energy obligation in the EPA, and purchased by Tembec from BC Hydro to service Tembec’s load.

8. Contrary to Canada’s claim that “{t}he Claimant then planned to buy this low-cost electricity from FortisBC and sell it back, for more than three times the price, to BC Hydro as if it were the Claimant’s own self-generated electricity”⁷, Celgar has never sought to sell any electricity it was not generating itself. To be clear, Celgar would have no electricity to sell if its generators were not generating electricity, and it is this electricity that Celgar has sought to sell. At no time did Celgar propose to sell any electricity that was not physically being generated by its own generators. Rather, Celgar has sought to sell its below-load self-generated electricity, while purchasing power from FortisBC to meet the electrical load of its pulp mill, similar to the arrangements between BC Hydro and self-generators such as Tembec, Howe Sound, Canfor and others that are allowed to sell below-load self-generated electricity.

9. These arrangements, like Celgar’s desired sales of below-load self-generated electricity, do not require BC Hydro to pay “something for nothing,” or BC Hydro would not have agreed to them. To the contrary, they involve legitimate transactions in which BC Hydro and other utilities routinely engage, because, in the absence of such self-generation, BC Hydro would itself have to generate or purchase electricity to meet that load. In the absence of Tembec’s below-load self-generation, electrons would flow from BC Hydro’s “Generator X” to

⁷ Counter-Memorial, ¶ 3.

Tembec's load. With such self-generation, those electrons can instead flow from "Generator X" to meet another BC Hydro's customer's load. Every MWh of self-generated electricity produced by a self-generator is one less MWh of electricity BC Hydro has to produce or purchase at its high marginal cost, or one more MWh it can sell to someone else. This has value to BC Hydro, and it routinely pays for such services not only through Electricity Purchase Agreements with self-generators, but also through Load Displacement Agreements.

10. In the case of Celgar sales to third-parties, BC Hydro would not need to change its electricity generation to facilitate the sale, and the electricity would flow to the purchaser from the system as a whole if not directly from Celgar. All power purchase and sale agreements are in fact based on these types of contractual, notional power flows, precisely because the parties have no control over the actual flow of electrons.

II. The Appropriateness of the Below Load Access Percentage Metric

11. Contrary to Dr. Rosenzweig's assertions that I developed and used the Below-Load Access Percentage metric as a test of discriminatory treatment⁸, differences in the Below-Load Access Percentage amongst self-generators do not by themselves establish that they result from discriminatory treatment. Differences in the Below-Load Access Percentage just show that the impact of BC's GBL determinations varies across pulp mills. The Below-Load Access Percentage is a useful measure of the effect of discriminatory treatment only after discriminatory treatment has been found to have occurred. Dr. Rosenzweig misinterprets the Below-Load Access Percentage as a test, whereas it actually is a measure.

⁸ NERA Expert Report, ¶ 59.

12. The purpose of the Below-Load Access Percentage is to provide a clear, objective measure that is not subject to interpretation of a process or a principle. Neither Dr. Rosenzweig nor any of Canada's other witnesses provide an alternative metric to measure the effect of discriminatory treatment in the setting of GBLs. Dr. Rosenzweig characterizes the Below-Load Access Percentage as a "flawed metric" and a "straw man" that I create and then proceed to knock down.⁹ To the contrary, rather than knocking it down, my analysis reinforces its usefulness as a measure of discriminatory treatment.

13. Simply because the Below-Load Access Percentage is a metric I arrived at when looking at the effects of discriminatory treatment does not mean the metric is flawed. Dr. Rosenzweig provides a laundry list of principles, issues, and processes that he claims I have somehow failed to apply or understand,¹⁰ but nowhere does he demonstrate the metric I have developed does not provide the measure of that which it was intended to provide -- the percentage of a pulp mill's electric load that could be met by self-generation that the pulp mill is permitted to meet with embedded cost utility electricity while it is selling self-generated electricity.

14. It is a measure of the degree to which a self-generator is permitted to engage in arbitrage. Perhaps if I had called it "Arbitrage Percentage," Dr. Rosenzweig would have been more accepting. After all, he explains that the policies underlying GBLs are intended to prevent arbitrage, so it is unclear why he objects to measuring the extent to which BC has permitted different pulp mills to engage in arbitrage.

⁹ NERA Expert Report, ¶ 61.

¹⁰ NERA Expert Report, ¶ 58.

15. The metric is consistent, easily defined, easy to apply and calculate, and the results can be independently replicated by anyone. As an engineer, if a tool does not exist to measure the effect I am interested in measuring, I create one. It is not surprising that such a measure did not exist before, as neither BC Hydro, nor the Province, nor the BCUC would have any interest in exposing, let alone measuring, the issue. In comparison, and as discussed below, BC Hydro's Generator Baseline ("GBL") metric based on "current normal" conditions is difficult to define, much less apply. In its various applications, it will be shown that "current normal" conditions are neither consistently "current" nor "normal" nor have BC Hydro's results been replicated by any of Canada's witnesses.

III. **BC Hydro's "Current Normal Operating Conditions" Evaluation Process**

16. It is difficult to trace the genesis of BC Hydro's purported use of "current normal" conditions as the basis by which it determines a self-generator's GBL. The earliest written reference to BC Hydro's use of the "current normal" criteria in determining GBLs is in its June 2012 information filing to the BCUC as follows:

The contracted GBL is intended to represent a reasonable estimate of the annual amount of customer self-generation used to supply its own industrial plant under current normal operating conditions, where "normal" is assessed in the context of the time period when the EPA is being negotiated.¹¹

17. In the June 2012 Information filing, BC Hydro provides the interpretation of "normal" as the "time period when the EPA is being negotiated", although the definition would seem to pertain more to the term "current". The requirement of an EPA and the tying of the baseline period to its negotiation can nowhere be found in Order G-38-01.

¹¹ C-26, BC Hydro, Information Report (June 2012), app. G.

18. Canada claims BC Hydro used “current normal levels of self-generation”¹² in setting the GBLs for EPAs awarded in the Bioenergy Call for Power Phase 1 and the Integrated Power Offer (IPO), the timeframe of which was between 2008 and 2010. Canada has provided no documentation to support the notion that the principle of “current normal” was anywhere expressed by BC Hydro in that timeframe. Indeed, in the Counter Memorial, it is difficult to extract a precise definition of the “current normal” principle. As discussed above, at some times it is expressed as “current normal levels of self-generation” and at other times as “the electricity that a mill generates for self-supply in normal operating conditions.”¹³

19. As will be discussed below, the “current normal” standard suffers from many flaws: it is at odds with the direction and purpose provided by the BCUC; it appears to have been developed *post hoc* as a justification for prior results; its interpretation is entirely at the discretion of the interpreter; its application has been inconsistent and arbitrary; and, none of Canada’s witnesses have replicated BC Hydro’s analysis of the “current normal” principle to arrive at any of the GBLs purportedly derived using the principle.

A. “Current Normal” Was Not the Threshold the BCUC Set in Order G-38-01

20. Mr. Dyck states that BCUC Order G-38-01 “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.”¹⁴ Mr. Dyck goes on to say that the “BCUC staff report appended to Order G-38-01 describes “incremental” self-generation

¹² Counter-Memorial, ¶ 364.

¹³ Counter-Memorial, ¶ 19.

¹⁴ Dyck Witness Statement, ¶ 36.

as the electricity generated by the customer above what it generates for self-supply under current normal operating conditions.”¹⁵

21. Nowhere does the concept of “current normal”, as now described in the Counter-Memorial, appear in either Order G-38-01 or the appended BCUC staff report. Rather, Order G-38-01 directs BC Hydro “to make every effort to agree on a customer baseline, based either on the historical energy consumption of the customer or the historical output of the generator.”¹⁶ The BCUC directed the consideration of actual historical performance, and not some “current normal” analysis.

22. Furthermore, and contrary to Mr. Dyck’s assertion, there is no description of incremental generation in the BCUC staff report. The BCUC staff simply observed that “B.C. Hydro concluded that incremental generation could be measured using a customer baseline approach as proposed in the Willis Energy Services Ltd. submission, based either on the customer’s historic load or the actual use of the self-generator.” (Emphasis added.) If anything, BC Hydro’s adoption of the “current normal” standard is undermined by its previous understanding of historical context as documented in the report.

23. The “current normal” GBL standard Canada describes in its Counter-Memorial and witness statements reflects a gross departure from the direction the BCUC provided in Order G-38-01. It is difficult to recognize the former as the offspring of the latter. Because it would take too much text to describe all the departures, I have identified important differences

¹⁵ Dyck Witness Statement, ¶ 37.

¹⁶ C-5, BCUC, Order Number G-38-01 and Accompanying Commission Staff Report (5 April 2001).

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between the BCUC’s “historical usage” standard and BC Hydro’s “current normal” standard in the table below:

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	Historical Usage	Current Normal
Stated Purpose	Preserve the <i>status quo</i> ; intended to allow new and incremental generation to access market rates; protect ratepayers from harm resulting from increases in purchases by self-generators of embedded cost power above 2000-1 levels	Identify “new and incremental” self-generation eligible for BC Hydro power calls so as only to incentivize new power; prevent arbitrage
Unstated Impacts		Eliminate competition for BC Hydro/Powerex from self-generators in export markets and third-party purchasers in BC
Time Perspective	Retrospective — requires analysis of “historical generation” and “historical consumption”	Prospective — predicts future self-supply levels based on current normal operating conditions ¹⁷
Time Frame Considered	2000-01	Current as of time of application for BC Hydro EPA
Generation Economic Conditions Considered	As all mills evaluated as of a common <i>status quo</i> , all GBLs based on same time economic parameters (e.g., pulp prices, natural gas prices, hog fuel prices)	No uniformity of conditions. Each mill’s “normal” condition is based on what was “normal” as of time of application for EPA.
Trigger	GBL set upon application to BCUC or application to own utility	For contractual GBL, must apply for an EPA with BC Hydro
GBL Based on Levels of Generation Actually Used to Meet Load	Yes	No. Generation levels used can be theoretical
Requires a BC Hydro EPA	No	Yes
Treatment of Past Energy Commitments	Not Mentioned	Considered
Permits Energy Sales to Third-Parties	Yes (G-38-01 enabled energy sales to California)	No (GBL-related exclusivity provisions in EPAs prohibit sales to third-parties)
Considers economics of self-generation	Only indirectly, insofar as economics affected historical generation and self-supply levels	Directly. May use theoretical models to assess the level of generation that would be economic without the EPA
Duration of GBL	Contemplates one time setting of GBL, but does not prohibit adjustment if conditions change	Life of EPA

¹⁷ See Counter-Memorial, ¶ 390 (Celgar’s GBL “represented normal operations *going forward.*”) (Emphasis supplied).

B. BC Hydro's "Current Normal" Standard Constrains Existing Generation

24. Order G-38-01 established a "baseline" principle that was specifically intended to identify the amount of a self-generator's idle self-generation based on the examination of the historical energy consumption or the historical output of the generator. Order G-38-01 did not seek explicitly to incentivize incremental generation, nor did it limit the use to which a self-generator put its self-generation. The Order only relieved BC Hydro of the obligation to provide incremental electricity to a self-generator taking self-generation to market.

25. BC Hydro has inappropriately linked the baseline principle established in Order G-38-01 with that of the GBL as used in EPAs and LDAs. On the one hand, the baseline principle established by Order G-38-01 limits BC Hydro's obligation to serve, and seeks to establish the demarcation between active and idle self-generation based on an examination of historical performance. On the other hand, BC Hydro has used the GBL concept to incentivize new generation and restrict a self-generator's use of its own self-generation, based on how that self-generation is capable of performing in "current normal" conditions, as determined in BC Hydro's discretion. For instance, in the parties' 2009 EPA, BC Hydro has prohibited Celgar from selling its self-generated below-GBL electricity to third-parties.

26. BC Hydro further has misapplied the baseline principle established by Order G-38-01 by extending it to generation added after Order G-38-01 was issued. In Celgar's case, Celgar has been prevented from selling incremental generation realized from its Blue Goose Project in 2007. BC Hydro did not look to historical energy consumption or the historical output of the generator, as the BCUC directed in Order G-38-01; instead, BC Hydro took a snapshot at a point in time it determined to be "current" and then further assumed the operations during that snapshot to be "normal".

C. BC Hydro's "Current Normal" Standard Was Not Documented Until 2012

27. It is peculiar that BC Hydro's first mention of the "current normal" standard is in BC Hydro's June 2012 Information Report filed with the BCUC, and even then, it is only a single reference. The BCUC did not approve or endorse the June 2012 Information Report, but instead directed BC Hydro to develop and file updated GBL guidelines to ensure "there is transparency and consistency in their application."¹⁸ BC Hydro has not provided any other documentation pre-dating the June 2012 Information Report that demonstrates that there was any "current normal" evaluation process in place or that there was any other internal policy followed by BC Hydro's employees in the establishment of GBLs.

28. It is difficult to imagine that BC Hydro transparently and consistently applied the "current normal" standard as early as 2008, during the evaluation of the Bioenergy Call for Power Phase 1 proposals, for at least three reasons. First, BC Hydro had no written process or policy that documented the basis upon which those evaluations would take place. Second, as will be shown later in this report, BC Hydro did not use the same data set for all mills. And third, during the evaluation of Tembec's GBL in March 2009, BC Hydro's own employee responsible for the evaluation of GBLs described that "we must develop a methodology of establishing a GBL this is transparent, defensible, consistent with current guidelines/legislation and fair to all our customers."¹⁹ This suggests that no such methodology was yet in place.

29. The fact that it took over two and a half years for BC Hydro to respond to the BCUC's questions regarding the guidelines associated with the determination of GBLs provided

¹⁸ C-168, BCUC, Order Number G-19-14 and Accompanying Decision (17 February 2014) at 22.

¹⁹ C-306, Email from Norman Wild to Chris Lague and Matt Steele RE: Skookumchuck GBL (25 March 2009), at Canada Bates 145689.

BC Hydro with ample opportunity retrospectively to create the “current normal” standard as the rationale behind the GBL determination process. Unfortunately for BC Hydro, even this retrospective construct fails to show the transparent and consistent application of the “current normal” standard.

D. BC Hydro’s “Current Normal” Standard Did Not Normalize Conditions

30. In BC Hydro’s snapshot view of “current normal” operating conditions, BC Hydro defines that “normal” is assessed in the context of the time period when the EPA is being negotiated. Considering the turbulent conditions faced by British Columbia’s pulp mills at the time when the BCUC issued Order G-38-01, and since, it is not appropriate or accurate to choose conditions at one point in time and consider that to be representative of the conditions under which a mill would operate for the duration of an EPA. Indeed, at the time Order G-38-01 was issued, the BCUC noted “the unique circumstances that currently exist”. Since Order G-38-01 was issued, pulp mills have experienced large fluctuations in the prices of both inputs, such as natural gas, hog fuel, and fibre and outputs such as pulp and electricity. In this sense, I contend that “current normal operating conditions” is somewhat of a misnomer because “operating conditions” imply conditions internal to a pulp mill such as equipment and process issues. BC Hydro’s use of the term captures a wide variety of influences that are external to the mill — economic and market conditions (*e.g.*, pulp prices, hog fuel prices, natural gas prices, and utility prices for embedded cost electricity) — as to which there are no “normal” levels, and which BC Hydro does not attempt to “normalize”.

31. The BCUC recognized the volatility associated with taking any snapshot in time and considering that to be “normal”, and instead directed that baselines be “based either on the historical energy consumption of the customer or the historical output of the generator.” The

key point here is that the historical perspective would serve to average out the effects of volatility instead of preserving the volatility for the term of the EPA.

32. Pulp mill operating conditions are dependent on a wide array of variables. In addition to those inputs and outputs identified above, pulp mills must adjust operations to respond to ever changing conditions in hog fuel availability, type and quality, fibre availability, type and moisture for pulp chips, and the operating characteristics of the process and equipment in the mill itself, such as recovery boilers, digesters, and evaporators, the operation of which is typically weather dependent. Choosing a single period of time as being representative of “normal” for all these variables is a fool’s errand. Put differently, the “current normal” standard is flawed conceptually because it is a static measure of generation levels that are highly dynamic and thus seeks to measure something that does not exist — a “normal” level of generation.

33. A far more appropriate approach would have been to identify these variables, and then define a set of “standard” operating conditions to normalize the operating characteristics amongst mills, which could then be compared on a common basis. Therefore, I conclude that the “current normal” standard is conceptually flawed because it is a static measure of generation levels that are highly dynamic and influenced by both internal and external factors that do not remain constant. A “normal” level of generation does not exist until one first defines a set of “normalized” conditions.

34. BC Hydro did not attempt to collect the data that would have allowed it to conduct such an evaluation and normalization of a mill’s operating characteristics. BC Hydro had very few constraints on the development of the methodology to determine GBLs. And BC Hydro’s methodology did not respect the one constraint it was directed to observe, that of

“historical energy consumption of the customer or the historical output of the generator.”

Instead, BC Hydro substituted its own “current normal” rationale without any direction to do so from either the BCUC or any provincial policy.

35. The “current normal” methodology is one entirely of BC Hydro’s own manufacture. Not only did BC Hydro determine which variables it would consider in the evaluation, but it also determined the manner or weight in which such variables would be considered. Furthermore, this was done without any formal guidance policies or documents, and entirely at the evaluator’s discretion. Finally, the details of the evaluation were never subjected to scrutiny by the BCUC or any other third party.

36. In Celgar’s case, BC Hydro chose to consider only two variables, total annual 2007 load and total annual 2007 generation. That is it. Just those two variables were considered to constitute “normal” operating conditions with respect to the determination of Celgar’s GBL for the purposes of a ten year EPA. BC Hydro did not look at a historical period, as directed by the BCUC, nor did it look at << [REDACTED] >> as it did for HSPP, nor did it consider the investments Celgar had completed during 2007 in the Blue Goose Project, which increased production of both pulp and electricity in comparison to historical levels.

37. In the case of Tembec’s GBL, determined in 2009, BC Hydro went far beyond the two variables it used to determine Celgar’s GBL. In Tembec’s case, BC Hydro sought to establish << [REDACTED] >> in order to “develop a non-arbitrary method of establishing a mill GBL that is fair to all mills.”²⁰ It is clear

²⁰ C-306, Email from Norman Wild to Chris Lague and Matt Steele RE: Skookumchuck GBL (25 March 2009), at Canada Bates 145689.

that BC Hydro delved far deeper into Tembec's operations than it did for Celgar in establishing a GBL.

38. For Tembec, BC Hydro appears to have considered << [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] >>²¹

39. << [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

²¹ Counter-Memorial, ¶¶ 388–89; Pöyry Expert Report, ¶¶ 131–33; Pöyry-54, Letter from Christian Lague, Tembec, to Matt Steele, Key Account Manager, BC Hydro (10 March 2009).

²² Pöyry-8, page 4.

[REDACTED]

[REDACTED] >>

40. BC Hydro has not supplied any documentation that shows it independently verified the results of Tembec's model.²³ << [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] >>

E. BC Hydro's "Current Normal" Standard Was Not Consistently Applied

41. At Mercer's request, I reviewed BC Hydro's "current normal" methodology and the manner in which it was applied to Celgar and the original comparator mills that I had identified. Using the documents made available by Mercer and Canada, I attempted to verify or validate three things: first, that the specific methodology used by BC Hydro in the determination of GBLs was the described "current normal" methodology; second, that this "current normal" methodology was consistently applied; and third, whether there was a different GBL that could be derived that was consistent with the "current normal" methodology.

42. Specifically, I examined the methodologies associated with the Howe Sound 2001 Consent Agreement, the Skookumchuck 2001 and 2009 EPAs, and the Howe Sound 2010 EPA. Based on concerns raised in Canada's Counter Memorial, Mercer also requested that I

²³ Mr. Stockard incorrectly refers to "the conclusion of BC Hydro's analysis indicates a GBL of 14 MW." Pöyry Expert Report, ¶ 135. In fact, BC Hydro ran no models and thus did not perform its own analysis. << [REDACTED]

[REDACTED] >>

review the GBL determined by the BCUC for Riverside Forest Products Limited (“Riverside”) in 2001, and the BCUC’s subsequent termination of that GBL in 2013.

43. I reviewed the testimonies of both Mr. Dyck and Mr. Scouras, and the expert reports prepared by Dr. Rosenzweig and Mr. Stockard. I also reviewed supporting documentation referenced in the testimonies and reports, and, unlike Messrs. Rosenzweig and Stockard, I reviewed the data for the hourly and monthly electrical load and generation at the various mills.

1. Tembec 2001 Skookumchuck EPA

44. Turning first to Tembec’s 2001 Skookumchuck EPA, which was simply an assignment of an EPA awarded in 1997 to the independent power producer (“IPP”) Purcell Power Corp., it is immediately apparent that the EPA does not contain any construct similar to a GBL. Therefore, because the pulp mill was generating electricity for self-supply before the EPA took effect, this EPA was entirely inconsistent with the “current normal” GBL standard.

The EPA instead << [REDACTED]

[REDACTED] >> It was inappropriate for BC Hydro to take an EPA intended in 1997 for an IPP and apply it in 2001 to a pulp mill self-generator, without at some point conforming the agreement to the requirements directed in Order G-38-01.

2. Howe Sound 2001 Consent Agreement

45. Turning next to the Howe Sound 2001 Consent Agreement, in which BC Hydro, Powerex Corp. (“Powerex”, the wholly-owned electricity marketing subsidiary of BC Hydro) and Howe Sound jointly agreed to allow Howe Sound to provide electricity it generated above

<< [REDACTED] >> to Powerex for sale to the market, I have not been able to find any

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documentation, data, or analysis that demonstrates the methodology by which the << [REDACTED] >> MW GBL was derived, much less that the “current normal” methodology was applied. I reviewed the Howe Sound generation data provided in Mr. Lamarche’s testimony,²⁴ and note that it is << [REDACTED] >>

There was no information offered as to why the actual electricity generation data did not cover << [REDACTED] >>

Mr. Lamarche offers no analysis to support the GBL of << [REDACTED] >> MW other than “{T}he initial figure we contemplated proposing to BC Hydro during the negotiations was << [REDACTED] >> MW, but we decided that number was too low as it included poor kraft mill operating days. Ultimately we decided to propose a threshold of << [REDACTED] >> MW as we believed that reflected << [REDACTED] >>²⁵ Mr.

Lamarche does not recreate, replicate or reconcile any result from the actual electricity generation data for << [REDACTED] >> preceding the 2001 Consent Agreement with the GBL determination; indeed it does not appear possible that the actual generation data could have supported a GBL determination of << [REDACTED] >> MW. A methodology that cannot be replicated cannot have been applied.

46. I have found no documentation to indicate that any analysis supporting the << [REDACTED] >> MW GBL determination was revisited before any of the subsequent << [REDACTED] >> renewals of the Consent Agreement, much less the application of some “current normal” methodology. This leads me to conclude there was no “current normal” methodology behind the << [REDACTED] >> MW GBL determination or its annual renewal.

²⁴ Lamarche Witness Statement, ¶ 24.

²⁵ Lamarche Witness Statement, ¶ 37.

47. Mr. Dyck appears to resist calling the << [REDACTED] >> MW self-supply obligation in the 2001 Consent Agreement a GBL, but merely a threshold “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.”²⁶ The distinction he attempts to draw between << [REDACTED] >> electricity sales matters naught, as neither << [REDACTED] >> sales affect the determination of the underlying self-supply obligation. The “current normal” methodology purports to define the amount of electricity a self-generator would “normally” generate for self-supply. Period.

3. Riverside 2001 GBL

48. In considering the self-supply obligation the BCUC determined in 2001 for the Riverside Forest Products Limited (“Riverside”) sawmill in Kelowna (now owned by Tolko), I examined the sawmill’s generation data for 2000, the year immediately preceding the year of Riverside’s application to the BCUC²⁷ as Canada contends the “current normal” methodology requires in the first instance. Riverside did not identify any outages, unexpected events, or abnormal operations that affected the generation in that year, and so the 2000 generation data could and should have been considered representative of “normal” operations.

49. The average generation for the entire one-year period was in excess of 4.7 MW per hour, and the entire amount generated in every hour was used for self-supply. Thus, this is the GBL that should have resulted from the application of the “current normal” methodology as

²⁶ Dyck Witness Statement, ¶ 41.

²⁷ C-206, Tolko Industries Ltd (Tolko) Responses to BCUC Information Request No. 1 (3 June 2011).

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has been described and applied to Celgar. The 2 MW GBL that the BCUC approved is less than half this amount, and inconsistent with BC Hydro's description of the "current normal" standard.

50. Returning to the metric I developed in my first report, the Below Load Access Percentage, I calculate a value of over 57 percent for Riverside/Tolko. It does not appear that the determination of the Riverside 2 MW GBL was based on the application of a "current normal" standard. Rather, the GBL is more consistent with Order G-38-01's historical usage approach, as the 2 MW GBL is indicative of the generation levels in 1998 and 1999, which predated the installation of a 10 MW turbine/generator at Riverside in April 2000. This historical usage or generation standard is entirely in line with the principles the BCUC had established in Order G-38-01, and not some "current normal" methodology, for which I have been able to find no documentation from that time period.

51. The BCUC, by looking back to the period before the 10MW turbine/generator had been installed and operated, essentially returned to Riverside the load displacement benefit of the increased generation it had installed, a benefit it had been providing to the Kelowna ratepayers, and by virtue of the BC Hydro – FortisBC 3808 Agreement, to the BC ratepayers as well, for free for a year. This is an important point because the BCUC decided that Riverside's actions in providing the benefit for free for a short period did not create any continuing entitlement for the ratepayers or an obligation on Riverside to continue to provide that benefit. Instead, the BCUC returned the benefit to Riverside, allowing it to sell all self-generated electricity above its 2 MW GBL.

52. In 2011, the BCUC reaffirmed Riverside's (by this time Tolko Industries Ltd (Tolko)) 2 MW GBL, which indicates to me that the BCUC was still using an historical usage or generation methodology for the determination of GBL, even as BC Hydro was not. This is not surprising, as the BCUC would only have learned of the "current normal" methodology in BC Hydro's June 2012 Information Report, before which there is no mention I could find of that particular methodology.

53. Finally, in 2013, the BCUC rescinded Tolko's 2 MW GBL and instead subjected Tolko to the same "net of load" standard that had been applied to Celgar. It is interesting to note that even after having been informed of BC Hydro's "current normal" methodology for determining a GBL, the BCUC chose to apply an even more restrictive "net of load" standard to the determination of GBLs in FortisBC's service territory.

4. Celgar 2009 EPA

54. I next reviewed the 349 GWh per year GBL that BC Hydro determined for Celgar and entrenched in the parties' 2009 EPA. The GBL not only set the demarcation point above which BC Hydro would purchase Celgar's self-generated electricity, but also it established a self-supply obligation for Celgar in the amount of the GBL, as it prohibited Celgar from selling any below-GBL electricity to a third-party.²⁸ I found many inconsistencies in the determination of Celgar's GBL as compared to the determination of the earlier GBLs I reviewed, and departures from what Canada and its witnesses now describe as the "current normal" operations standard as the methodology by which a GBL is determined.

²⁸ C-221, 2009 Celgar EPA, § 7.4(b).

55. First and foremost, I conclude that BC Hydro actually followed the “net-of-load” standard in setting Celgar’s GBL, and not some “current normal” operations methodology. Although BC Hydro looked at Celgar’s 2007 operations, which is itself an inconsistent choice of year as discussed below, BC Hydro set Celgar’s GBL at the mill’s 2007 load, not the amount of electricity Celgar self-supplied to its load.

56. As I explained in my initial report, there are two equivalent formulae for measuring generation-to-load: (1) Load - Purchases, and (2) Generation - Sales.²⁹ BC Hydro in fact used formula (2) in computing << [REDACTED] >>, as its straightforward spreadsheet formulas reveals.³⁰ Yet for Celgar, BC Hydro measured load, not generation-to-load, and thus used neither formula. BC Hydro used different arithmetic for Celgar than it used for << [REDACTED] >>.

57. In 2007, Celgar actually used its self-generation as follows: (1) it sold 23.9 GWh to FortisBC and NorthPoint, and it used only the remainder, 326.7 GWh, to service its own load.³¹ Accordingly, if 2007 were an appropriate baseline year (which it is not, for the reasons I discuss below), Celgar’s GBL should have been 326.7 GWh/year. I therefore conclude not only that a different GBL for Celgar was possible under the “current normal” standard, but also that a different GBL was more appropriate under that standard. Pulp mill operations vary from hour to hour, and fluctuations in steam load, black liquor supply, hog fuel quality and equipment operation, amongst other factors, can cause changes in both electrical load and generation. In Celgar’s case, I examined the Mill’s 2007 hourly operational data and found that

²⁹ Switlischoff Expert Report, ¶ 190 and n. 48.

³⁰ See Memorial, ¶ 572 and Figure 18.

³¹ See Memorial, Annex A.

in most hours, electricity generation was greater than load and the excess electricity was sold, but in [REDACTED], electricity generation was less than load, and Celgar made purchases of electricity from FortisBC to supply Celgar's electrical load. In this way, it is entirely possible for the total annual generation to exceed the total annual load but not be used entirely for self-supply, because the annual totals do not reflect what is happening on an hourly basis. Indeed, on an annual basis, *in every single year* up to and including 2007, which year BC Hydro used as its baseline, Celgar *always* fell significantly short of meeting its total annual load through self-generation, due to planned and unplanned mill outages, planned and unplanned generator outages, and poor operating performance occurring on a real time, hourly basis. This only further undercuts BC Hydro's determination to use a load-based GBL for Celgar.

58. Mr. Dyck explains that he arrived at the annual GBL figure of 349 GWh by "adjusting total generation for the net exports."³² Mr. Dyck erred in his analysis when he used net exports rather than total exports. If Mr. Dyck was truly seeking the amount of self-generation that was used for self-supply, the correct formula would have been total generation (350,641 MWh) minus total exports (23,926 MWh) for a result of 326,715 MWh. However, the formula used by Mr. Dyck added back in the purchases Celgar made from FortisBC (22,560 MWh) to serve its load, the result of which (349,275 MWh), is nothing more than Celgar's total load. Mr. Dyck, perhaps inadvertently, simply regenerated a formula for the "net of load" standard in the determination of Celgar's GBL. This is not consistent with the "current normal" operations standard the purpose of which, as described earlier by Mr. Dyck, "was to ensure the customer continued to use the same amount of self-generation output (i.e., the GBL) for self-

³² Dyck Witness Statement, ¶ 41.

supply as it would under normal conditions.”³³ Again, this is understandable, as I have found no written procedures or methodologies from that time period to guide Mr. Dyck in his analysis and determination of Celgar’s GBL.

59. I see no justification under the “current normal” standard for BC Hydro’s failure to deduct from Celgar’s total generation level the full amount of Celgar’s sales of electricity to FortisBC and NorthPoint. Indeed, the sales to FortisBC and to NorthPoint were not “deemed” sales of electricity that actually flowed to meet Celgar’s own load. These were actual electricity flows onto FortisBC’s transmission network that were not used to meet Celgar’s load.

60. A second inconsistency in Mr. Dyck’s application of the “current normal” operations methodology is the use of 2007 as the baseline year for Celgar’s “normal” operations. As documented in BCUC Order G-113-01, Riverside first approached both the City of Kelowna and West Kootenay Power (now FortisBC) in 1998. From the data Riverside provided in its application, its average generation in 1997 was approximately 2.3 MW per hour, which increased to over 3 MW per hour in 1998.³⁴ The BCUC apparently chose the year prior to the year that Riverside first approached its utility as the “baseline” year upon which to assess historical generation. BC self-generator GBL policy, as has been articulated by the BCUC and the MEM, has never been solely about selling self-generator power to BC Hydro, and it does not apply just in BC Hydro’s service territory. Thus, the BCUC has discussed the GBL as a baseline to be negotiated between the self-generator *and its supplying utility*. This policy began with Order G-38-01, in which the BCUC ordered *BC Hydro* to negotiate customer baselines

³³ Dyck Witness Statement, ¶ 49.

³⁴ C-332, Riverside Forest Products Limited, Response to Information Requests, Application by Riverside for an Order Pursuant to Section 88(3) of the *Utilities Commission Act* (5 July 2001), at 16-18 of 96.

with “Rate Schedule 1821 customers” — that is, *BC Hydro customers*. It was confirmed by the Commission in its 2013 *Kelowna Decision*, in which the BCUC stated that “the notion of a GBL, representing in its most basic form, the load a self-generator must serve, should be tied to an agreement *with the utility*.”³⁵

61. Celgar first approached its utility, FortisBC, regarding the sale of its self-generated electricity in June 2007,³⁶ which means that 2006 should have been chosen as the baseline year. From my examination of Celgar’s 2006 load and generation data, had 2006 been chosen as the baseline year, the resulting GBL, or self-generation used for self-supply, should have been calculated as the total generation of 290.4 GWh minus the total sales 22.2 GWh, resulting in a GBL of 268.2 GWh per year.

62. Furthermore, in my opinion, the use of a single year of Celgar’s generation and load data was an inappropriately short duration over which to determine the normal operating conditions. The Celgar mill had been making significant changes to equipment and operations over the course of 2006 and 2007, described elsewhere as the Blue Goose project. Contrary to Canada’s assertion that the Blue Goose project had “successfully normalized its operations,”³⁷ the operational characteristics and reliability of this equipment was unknown in 2007. As was demonstrated by << [REDACTED] >>, and << [REDACTED] >>, changes to equipment and operations do not always provide the expected long-term performance. The consistency, reliability, and effectiveness of new equipment and processes require a longer time than one-year to establish. It would have been more appropriate for Mr.

³⁵ C-21, *Kelowna Decision*, at 20 (emphasis supplied).

³⁶ Merwin Witness Statement, ¶ 66

³⁷ Counter-Memorial, ¶ 202.

Dyck to use a three year period for Celgar's baseline << [REDACTED] >>. Again, from my analysis of Celgar's generation and load data, the GBL should have been set at 266.5 GWh/year if the 2004-2006 baseline period was used (the three years prior to when Celgar first approached FortisBC), and 289.6 GWh/year if the 2005-2007 baseline period was used.

63. As an aside, I have also been asked to address certain of Canada's arguments concerning the < [REDACTED] > to which Celgar and BC hydro have agreed to enable implementation of their 2009 EPA. Canada suggests that BC Hydro has provided favorable treatment by charging Celgar < [REDACTED] > [REDACTED] > BC Hydro's tariff rates include a capacity charge for its industrial customers intended to recover the system fixed costs necessary to generate and deliver electricity to the customer. < [REDACTED] > [REDACTED] >

5. Tembec 2009 Skookumchuck EPA

64. Finally, I reviewed the methodology underlying the determination of the 122.64 GWh annual GBL for Tembec's 2009 Skookumchuck EPA. As noted in my previous report, the GBL has a peculiar << [REDACTED] >> shape, although it can be expressed as an annual average of 14 MW per hour. However, aided by the documentation cited by Canada in the Counter

³⁸ Counter-Memorial, ¶ 119.

Memorial, I found I erred on two counts in my original analysis. First, I was incorrect in my conclusion that BC Hydro arrived at a GBL of 14 MW per hour by considering the << [REDACTED]

[REDACTED] >> And second, I attributed this analysis to BC Hydro, which is also incorrect. I will discuss my corrected understanding of both of these issues below, but after examining the data again, and Canada’s explanation, I conclude that BC Hydro did not correctly apply its “current normal” methodology to the determination of this GBL.

65. My earlier conclusion regarding the GBL being set by << [REDACTED]

[REDACTED]

[REDACTED] >> was based on the following passage from the Tembec Justification Report:

To define the GBL, << [REDACTED]
[REDACTED] >>, the GBL is set at 14 MWh/h.

66. The exhibits Pöyry-54 and Pöyry-56 provide Tembec’s modeled analysis of the amount of electricity the plant would have generated using either << [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] >> In that respect, the model does not reflect “current normal” operations for the Skookumchuck Pulp Mill at any point in time,

³⁹ C-99, Tembec Justification Report, at p. 2 of 13.

and because BC Hydro relied on the results of that model to determine the GBL, it follows that the GBL was not based on any analysis of current normal operations.

67. Before turning to the results of Tembec's model and its difference from "current normal" operating conditions, I find it important to note that, although I originally attributed the model analysis to BC Hydro, I was unable to find any independent analysis by either BC Hydro or Canada's expert witnesses that corroborated the results of Tembec's model. In fact, Mr. Stockard also attributes the analysis that produced a GBL value of 14 MW to BC Hydro,⁴⁰ but the only model-based analysis I could find that generated the 14 MW value was that of Tembec in exhibit Pöyry-54.

68. Turning then to the GBL determination itself, I noted in my earlier report the skewed hourly GBLs of << [REDACTED] >>. I now acknowledge that BC Hydro's rules allowed for broad latitude for Tembec to propose the shaped << [REDACTED] >> deliveries that it did, provided it respected the annual GBL constraint. However, as BC Hydro has explained that the purpose of a GBL is ultimately to protect the ratepayers from increased costs attributable to arbitrage, it seems odd that protecting ratepayers from increased costs attributable to self-generators << [REDACTED] >>. For example, in examining Tembec Skookumchuck's hourly self-generation profile for February 2011, and comparing this to May 2011, << [REDACTED] >>. This appears to be simply an opportunity for Tembec << [REDACTED] >>.

⁴⁰ Pöyry Expert Report, ¶ 135.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] >>

69. The determination of the GBL for the 2009 Skookumchuck EPA appears to have been based on Tembec's own model and results contained in Pöyry-54. It is exactly the results shown in Pöyry-54 that are presented in the Pöyry Expert Report.⁴¹ It does not appear that any independent verification of the modeled results, by BC Hydro or by Pöyry have been performed.

70. Tembec's engineer responsible for the steam and generation model, Mr. Lague, describes that the model analysis results as presented in Pöyry-54 employed the following assumption:

A fundamental principle in the GBL calculations at Skookumchuck is that, <<
[REDACTED]
>>⁴²

71. This reference conflates two issues that should properly be kept separate: the distinction between the operations that would have existed but for the 2001 Skookumchuck

⁴¹ Pöyry Expert Report, ¶ 134.
⁴² Pöyry-54, Letter from Christian Lague, Tembec, to Matt Steele, Key Account Manager, BC Hydro (10 March 2009), at page 3.

EPA, and the infrastructure that was incentivized by the 2001 Skookumchuck EPA. << [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] >> and as result, any GBL determination based on
the results of this model analysis are inconsistent the “current normal” methodology.

72. Tembec did have the right to terminate the 2001 Skookumchuck EPA, as early as
2011. BC Hydro had expressed concerns that if Tembec exercised that right, Tembec would
also choose to cease generating any electricity << [REDACTED]
[REDACTED] >>:

If Tembec terminated the 1997 EPA and stopped producing power as a result of
high fuel costs, << [REDACTED]
[REDACTED] >>⁴³

73. This concern was misplaced, << [REDACTED]
[REDACTED] >>. At a minimum, the mill would have
continued to burn all of the black liquor it produced, to recover the pulping chemicals, to avoid
disposal costs, and to avoid the costs of purchasing that electricity from BC Hydro. Tembec’s
generation-specific costs, including maintenance, would have been insignificant in comparison
to these savings. Indeed, Mr. Dyck should have known all of this through an examination of
Tembec’s operations and self-generation data while the Skookumchuck mill was operating
under the 2001 EPA. On February 3, 2009, Tembec announced it would temporarily idle the

⁴³ Dyck Witness Statement, ¶ 102.

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Skookumchuck mill, beginning in late February, for a period of six weeks.⁴⁴ The hourly data confirms this indeed occurred starting around February 24, 2009. The shutdown lasted about as long as Tembec had earlier announced, as the pulp mill resumed generating electricity on April 18, 2009. I was able to examine the “current normal” operations of the Skookumchuck pulp mill for the period immediately following the February 2009 shutdown, and preceding the execution of the 2009 Skookumchuck EPA, through examination of the actual hourly load and generation data file.⁴⁵ Following the mill’s start up, I examined the mill’s electricity generation over the next four months, as shown in the table below:

Month	Total Generation (GWh)	Average Generation (MW per hour)
May 2009	[REDACTED]	
June 2009		
July 2009		
August 2009		
4 month total/average		

74. Mr. Dyck had these data, because BC Hydro was metering the generation, << [REDACTED]

[REDACTED]

[REDACTED] >> There was no basis whatsoever for

Mr. Dyck’s concern that the mill would produce pulp and << [REDACTED]

[REDACTED]

[REDACTED]

⁴⁴ Pöyry-53, RISI Press Release (3 February 2009) at 1.

⁴⁵ C-163, Skookumchuck Generation - External (Restricted Access (2006–2011)).

[REDACTED]

[REDACTED] >>

75. As demonstrated by Tembec’s actual conduct in the period from May to August 2009, << [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] >>

76. Tembec’s actual generation data conclusively establish << [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] >> The hypothetical model provided a

pretext for BC Hydro to establish a more favorable GBL than its “current normal”

methodology, properly applied, could possibly have allowed.

77. I was also able to summarize the annual generation data for Skookumchuck from several sources⁴⁶ for the years before and after the 2009 Skookumchuck EPA was executed and implemented:

Year	Total Generation (GWh)	Average Annual Generation (MW per hour)
2005		
2006		
2007		
2008		
2010 ⁴⁷		
2011		

78. For the May through August four month period immediately following the February 2009 shutdown, and up to the execution 2009 Skookumchuck EPA, the mill had no self-generation (GBL) obligation, << [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] >>, I can find no justification for a GBL of 14 MW. If Mr. Lague's model is accurate, << [REDACTED]

⁴⁶ C-112, Tembec Skookumchuck CBL/GBL Analysis (6 April 2009) at 3; C-163, Skookumchuck Generation - External (Restricted Access) (2006-2011) ("Self-Generation (gross)," row 13.

⁴⁷ Tembec's generation data << [REDACTED] >> C-163, Skookumchuck Generation - External (Restricted Access) (2006-2011) at TemData tab.

[REDACTED]

[REDACTED] >> The data thus refute BC Hydro's assertion that high hog fuel prices rendered Tembec's hog fuel boiler uneconomical. This too appears to have been a pretext for awarding Tembec an unjustifiably low GBL.

79. BC Hydro had no factual basis upon which to << [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] >>

80. I conclude that BC Hydro's GBL determination of 14 MW was clearly inconsistent with the "current normal" operations of the mill, and inconsistent with the "current normal" methodology BC Hydro has described. This inconsistent characterization of Tembec's "current normal" operations is further reinforced in the comparison of the annual generation data before and after the 2009 Skookumchuck EPA. << [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] >>

6. Howe Sound 2010 EPA

81. In my final review, I found that the GBL calculations performed by BC Hydro for Howe Sound's 2010 EPA come closest to following the general "current normal" standard as Canada now describes it. In this case, I located and was able to review spreadsheets with calculations that demonstrated a quantitative evaluation that I was able to follow and verify. No such documentation exists for Celgar, Tembec, or Tolko. BC Hydro's arithmetic involved starting with Howe Sound's total generation, << [REDACTED]
[REDACTED]
[REDACTED] >>

82. In my earlier report, I described the methodology behind the Howe Sound GBL determination and observed << [REDACTED]
[REDACTED] >> the 12 month data record used for Celgar.⁴⁹ Mr. Dyck addresses this issue in his testimony as follows: "Looking beyond << [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] >> For this reason, the parties agreed to calculate << [REDACTED]
[REDACTED] >>⁵⁰ Mr. Dyck does not describe << [REDACTED]
[REDACTED] >>

⁴⁸ I note further that BC Hydro, in computing Howe Sound's generation-to-load, << [REDACTED]
[REDACTED] >>

⁴⁹ Switliff Expert Report, ¶ 131.
⁵⁰ Dyck Witness Statement, ¶ 129.

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83. The problem with Mr. Dyck's description is that << [REDACTED] >> is not a characteristic of "normal" operations at a pulp mill. "Normal" operations are characterized by consistent data month by month and year over year. Again, from Mr. Dyck's testimony, << [REDACTED]

[REDACTED] >>⁵¹ Under the "current normal" methodology, in my judgment, that finding alone should have led Mr. Dyck not to rely << [REDACTED] >>

84. If BC Hydro's objective was to determine mill performance under "normal" conditions, as it purports, it was not appropriate for BC Hydro to utilize << [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] >>

85. Looking at Celgar's data, << [REDACTED]
[REDACTED]
[REDACTED] >> A fundamental shortcoming of an undocumented or ill-defined methodology is that it provides BC Hydro with enormous discretion to define and apply conditions of its choosing to include or exclude certain data, and thereby achieve almost any outcome it desires.

86. BC Hydro simply selected a << [REDACTED]
[REDACTED] >> and a 12-month calendar year period beginning in January 2007 for

⁵¹ Dyck Witness Statement, ¶ 128.

Celgar. Nothing in the “current normal” standard Canada defined compelled either result.

Nothing in the professed standard compelled BC Hydro to << [REDACTED]

[REDACTED] >> The GBLs BC Hydro determined ultimately resulted not from the application of a well-defined standard, but instead from BC Hydro’s exercise of discretion.

* * *

87. In conclusion, BC has had no uniformly articulated, clearly defined, GBL standard that it consistently has applied, even since the issuance in 2001 of BCUC Order G-38-01. At best, BC Hydro had a general “high level” principle, inconsistent with the BCUC’s Order G-38-01, that it purports to have applied in establishing GBLs, that was so non-transparent and general that it afforded BC Hydro virtually unfettered discretion in establishing GBLs for individual self-generators. BC Hydro could and did use historical data at times, and theoretical data at other times, with no clear standard governing its choice. It could use any << [REDACTED] >> period of its selection, and it used << [REDACTED] >> periods for some and << [REDACTED] >> for others, and << [REDACTED] >> for some, and << [REDACTED] >> for others, essentially cherry-picking the data on which it wanted to rely. It could test << [REDACTED] >> to determine if the year was “normal.” << [REDACTED]

[REDACTED] >> BC Hydro could pick whatever starting date it wanted. It could consider the mill’s economics, or not. It could negotiate with some, and dictate to others. It could adjust for *force majeure* events, or it could

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consider them to reflect “normal” conditions. It had the discretion to treat some more favorably, and Celgar less favorably, and it did.

Elroy Switlishoff

Castlegar, British Columbia
10 December 2014