

Before the Additional Facility of the  
**INTERNATIONAL CENTRE FOR SETTLEMENT OF  
INVESTMENT DISPUTES (ICSID)**

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**MERCER INTERNATIONAL INC.,**  
*Claimant,*

v.

**GOVERNMENT OF CANADA,**  
*Respondent.*

**ICSID CASE NO. ARB(AF)/12/(3)**

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**CLAIMANT'S MEMORIAL**

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**31 March 2014**

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**Glossary**

<b><u>Name</u></b>	<b><u>Full Name/ Description</u></b>
<b>1989 Generation Agreement</b>	1989 generation agreement between HSPP and BC Hydro
<b>2008 PSA</b>	2008 Power Service Agreement between Celgar and FortisBC
<b>1997 Skookumchuck EPA, 1997 Tembec EPA, 2001 Skookumchuck EPA, or 2001 Tembec EPA</b>	1997 EPA between Purcell and BC Hydro, ultimately implemented by Tembec in 2001
<b>2009 Skookumchuck EPA or 2009 Tembec EPA</b>	2009 EPA between Tembec and BC Hydro
<b>€</b>	Euros
<b>Arbitrage</b>	The simultaneous purchase of power by a self-generator at embedded cost rates and sale of self-generated power at market rates
<b>ADMT</b>	Air Dried Metric Tonnes
<b>APA</b>	Access Principles Application
<b>BC Hydro</b>	British Columbia Hydro and Power Authority
<b>BC or Province</b>	The Government of British Columbia
<b>BCTC</b>	British Columbia Transmission Corporation
<b>BCUC or the Commission</b>	British Columbia Utilities Commission

<u>Name</u>	<u>Full Name/ Description</u>
<b>Below Load Access Percentage</b>	A calculation to compare self-generator access to embedded cost utility electricity to meet their own load while selling electricity.
<b>Bioenergy Phase 1</b>	A Request for Proposals for biomass-based electricity issued by BC Hydro pursuant to BC's 2007 Energy Plan
<b>Black Liquor</b>	The spent cooking liquid from a pulp mill's digester that serves as a biofuel
<b>Blue Goose Project</b>	A capital investment project implemented by Mercer from 2005 through 2007 to increase pulp production and electricity generation capabilities of the Celgar mill.
<b>C\$</b>	Canadian dollars
<b>Canada or Respondent</b>	Government of Canada
<b>Canfor</b>	Canfor Pulp Limited Partnership
<b>CBL</b>	Customer Baseline Load
<b>Celgar</b>	Zellstoff Celgar Limited and/or Zellstoff Celgar Limited Partnership, Canadian affiliates
<b>Celgar Mill</b>	The NBSK pulp mill located in Castlegar, British Columbia, currently owned by Celgar. The mill is located on the south bank of the Columbia River, approximately 600 kilometers east of Vancouver, and 32 kilometers north of the Canada-U.S. border.
<b>Crestbrook</b>	Crestbrook Forest Industries



<u>Name</u>	<u>Full Name/ Description</u>
<b>COD</b>	Commercial Operation Date
<b>Columbia Power</b>	Columbia Power Corporation, a BC crown corporation wholly-owned and controlled by BC.
<b>Domtar</b>	Domtar Pulp & Paper Products Inc.
<b>DSM</b>	Demand Side Management; means one or more “demand side measures” as such term is defined in the BC <i>Clean Energy Act</i> , <i>i.e.</i> , “a rate, measure, action or program undertaken (a) to conserve energy or promote energy efficiency, (b) to reduce the energy demand a public utility must serve, or (c) to shift the use of energy to periods of lower demand, but does not include (d) a rate, measure, action or program the main purpose of which is to encourage a switch from the use of one kind of energy to another such that the switch would increase greenhouse gas emissions in British Columbia, or (e) any rate, measure, action or program prescribed.”
<b>Electricity/power/energy</b>	These terms are used interchangeably to mean electrical capacity and electrical energy and any ancillary electricity services supplied by an electrical power generating unit or multiple generating units.
<b>Embedded cost</b>	The weighted average cost of existing sources of power in a utility’s resource stack. It reflects the total cost of all a utility’s electricity resources, divided by the total electricity volume, which yields an overall average unit cost of electricity.

<u>Name</u>	<u>Full Name/ Description</u>
<b>Environmental Attributes</b>	<p>A term used by BC Hydro to characterize energy generation resource options and include the following environmental attribute categories: Land, Freshwater, Marine and Air. The attributes by major attribute category (Land, Freshwater, Marine, and Air) are listed below:</p> <ul style="list-style-type: none"> <li>• Land: Net Primary Productivity, Conservation Priority Species, and Linear Disturbance (remoteness),</li> <li>• Freshwater: Riparian Footprint, Aquatic Footprint (reservoir area &amp; affected stream length), and Priority Fish Species,</li> <li>• Marine: Bathymetry, Valued Ecosystem Features, and Commercial Bottom Fisheries, and</li> <li>• Air: Air Contaminants, and GHG Emissions.</li> </ul>
<b>EPA</b>	Electricity Purchase Agreement
<b>FEP</b>	Firm Energy Price
<b>Firm Energy</b>	<p>A term used in power sales agreements to connote that the energy always will be available, except in cases of system failure. Utilities are required to have sufficient capacity, including reserves, to meet their firm energy commitments.</p>
<b>Firm Energy Price</b>	The price for firm energy service.
<b>FortisBC or Fortis</b>	FortisBC Inc.
<b>G-38-01</b>	<p>A 2001 BCUC Order that directed BC Hydro to negotiate and thereby determine GBLs with its self-generating customers applying an historical usage standard. This standard allowed mills to access embedded cost utility electricity while selling electricity based on their historical usage.</p>
<b>G-48-09</b>	<p>A 2009 BCUC Order that required FortisBC to restrict access to embedded cost electricity to self-generators in its service territory applying a net-of-load standard, such that the self-generator could be afforded no access to embedded cost utility electricity while selling electricity.</p>

<u>Name</u>	<u>Full Name/ Description</u>
<b>G-156-10</b>	A 2010 BCUC Order wherein the BCUC refused Celgar’s request for a GBL, and switched Celgar from RS 33 to RS 31.
<b>G-188-11</b>	A 2011 BCUC Order ruling that Celgar had “some” entitlement to FortisBC embedded cost power
<b>G-202-12</b>	A 2012 BCUC Order approving FortisBC’s notional matching mechanism for ensuring that it does not supply a self-generator with PPA power while it is selling electricity
<b>GBL</b>	Generator Baseline
<b>GBL Guidelines</b>	BC Hydro guidelines on establishing GBLs issued in June 2012.
<b>GJ</b>	Gigajoule; a gigajoule is equal to one billion (10 <sup>9</sup> ) joules. A joule is a unit of energy, work, and heat. It is the amount of work required to produce one watt of power for one second.
<b>Green Energy</b>	Energy produced from a clean or renewable resource, including biomass, biogas, geothermal heat, hydro, solar, ocean, and wind
<b>Green Energy Project</b>	A Mercer project that was completed in 2010 to install a new 48 MW turbine generator and to increase the self-generation capabilities of the Castlegar mill.
<b>GW</b>	Gigawatt
<b>GWh or GW.h</b>	Gigawatt hour
<b>Heritage Contract</b>	A BC legislated contract to guarantee to all BC Hydro ratepayers the benefits of BC Hydro’s legacy, low-cost hydroelectric generating stations and other Heritage Resources.

<u>Name</u>	<u>Full Name/ Description</u>
<b>Historical Usage</b>	A standard applied in calculating a GBL that allows a self-generator to access embedded cost utility electricity while selling electricity based on its historical usage.
<b>Hog Fuel</b>	Biomass consisting of bark and other wood residuals from sawmills and pulp mill woodrooms
<b>Howe Sound</b>	Howe Sound Pulp and Paper
<b>Hydro Act</b>	Hydro and Power Authority Act
<b>IPO</b>	BC Hydro's Integrated Power Offer
<b><i>Kelowna Decision or Order G-191-13</i></b>	BCUC Order Number G-191-13 and Accompanying Reasons for Decision, holding that it is unduly discriminatory to apply a net-of load access standard to one customer and an historical usage based GBL access standard to another customer.
<b>kVA</b>	Kilovolt-ampere -- a measure of capacity rather than energy that combines both real power and reactive power components. Also referred to as apparent power.
<b>kW</b>	Kilowatt
<b>kWh or kW.h</b>	Kilowatt hour
<b>LDA</b>	Load Displacement Agreement
<b>LTAP</b>	Long Term Acquisition Plan

<u>Name</u>	<u>Full Name/ Description</u>
<b>MEM</b>	BC Ministry of Energy and Mines, also known as Ministry of Energy, Mines, and Petroleum Resources and Ministry of Energy, Mines and Natural Gas
<b>MERC</b>	Symbol for Mercer on the NASDAQ global market
<b>Mercer or Claimant</b>	Mercer International Inc, a U.S. corporation
<b>Mid-C</b>	Mid-Columbia Hub
<b>MLA</b>	Member of the Legislative Assembly (British Columbia)
<b>MOE</b>	BC Ministry of Environment
<b>MOF</b>	BC Ministry of Forests, Lands and Natural Resource Operations
<b>MOT</b>	BC Ministry of Jobs, Tourism and Skills Training
<b>MFN</b>	Most Favored Nation
<b>MRI.I.</b>	Symbol for Mercer on the Toronto Stock Exchange
<b>MT</b>	Metric tonnes
<b>MW</b>	Megawatt
<b>MWh or MW.h</b>	Megawatt hour
<b>NAFTA</b>	North America Free Trade Agreement

<u>Name</u>	<u>Full Name/ Description</u>
<b>NBSK</b>	Northern Bleached Softwood Kraft
<b>NECP</b>	Non-BC Hydro PPA embedded cost power
<b>NECP Rate Rider</b>	Part of FortisBC’s proposed stepped rate for self-generating customers, it is a market-based rate that requires the self-generator to pay all costs associated with FortisBC’s matching purchases of energy required to supply the self-generator to guarantee that is supplied only with NECP and no BCHydro PPA power
<b>Net-of-load</b>	This method for calculating a GBL where BC required all industrial self-generators to use their generating assets first to meet their own load, and thus permit them to sell only their excess generation, net-of-load, to the market.
<b>Non-firm</b>	Energy and capacity that is provided on an “as available” basis with no guarantee of quantity or duration of supply, and may be curtailed at any time without notice
<b>Notice of Intent</b>	Letter from the Government of Canada Confirming Receipt of Notice of Intent to Submit a Claim to Arbitration Under Chapter Eleven and Articles 1503(2) and 1502(3)(A) of the North American Free Trade Agreement (8 February 2012).
<b>Open Access</b>	Refers to the ability of a buyer or seller of electricity to obtain access to BC Hydro’s and/or FortisBC’s transmission system on reasonable terms and conditions to effectuate a transaction
<b>Pope &amp; Talbot</b>	Pope & Talbot, Inc.
<b>Powerex</b>	A wholly-owned power trading subsidiary established by BC Hydro

<u>Name</u>	<u>Full Name/ Description</u>
<b>PPA or 1993 PPA</b>	1993 Power Purchase Agreement between FortisBC and BC Hydro
<b>PPGTP</b>	The Canadian federal government’s Pulp & Paper Green Transformation Program, administered by Natural resources Canada
<b>Purcell</b>	Purcell Power Corp.
<b>Ratchet</b>	Capacity-related electricity charges, associated with firm service, related to the use of electricity in one billing period, that extend into future billing periods.
<b>REC</b>	Renewable Energy Certificates
<b>Request for Arbitration or RFA</b>	Mercer’s 30 April 2012 Request for Arbitration against Canada under provisions of the North American Free Trade Agreement
<b>RFP</b>	Request for Proposals
<b>RS</b>	Rate Schedule
<b>RS 31</b>	FortisBC’s firm transmission service rate schedule
<b>RS 33</b>	Fortis BC’s time-of-use transmission rate schedule
<b>RS 1823</b>	BC Hydro Rate Schedule that introduced stepped rates April 2006
<b>RS 1880</b>	BC Hydro Rate Schedule providing for transmission-level standby and maintenance service. This is “non-firm” service, which BC Hydro provides only to the extent it has energy and capacity to do so.

<u>Name</u>	<u>Full Name/ Description</u>
<b>Self-Generation</b>	Electricity produced by a self-generator
<b>Self-Generator</b>	An industrial enterprise within BC that has the capability to generate its own electricity at company-owned facilities.
<b>Standby service</b>	A type of backup electricity service that would, for example, enable a self-generator to obtain replacement power, for example, during its own generator outages, in which it is not operating one or more generators but still is consuming power it normally would self-generate and use internally.
<b>Stepped Rate</b>	A two-tiered electricity rate whereby a portion of the electricity purchased by industrial customers is priced at the utility's marginal cost to encourage conservation
<b>Stone Venepal</b>	Stone Venepal (Celgar) Pulp, Inc.
<b>TAA</b>	Transmission Access Application
<b>Tembec</b>	Tembec Industries Inc. or Tembec Enterprises Inc.
<b>Tier 1 Rate</b>	An electricity rate that is charged for power consumption up to 90 percent of CBL. The Tier 1 rate is a below-embedded cost rate, calculated residually from the Tier 2 rate to maintain revenue neutrality (i.e., the two tier rates combined yield an embedded cost rate for the customer class).
<b>Tier 2 Rate</b>	An electricity rate that is set as a signal of a utility's cost of acquiring energy through long-term contracts. Generally the Tier 2 rate is applied to a customer's purchases above 90 percent of CBL.
<b>TMP</b>	Thermomechanical Pulping



<u>Name</u>	<u>Full Name/ Description</u>
<b>Tolko</b>	Tolko Industries Ltd., including its predecessor, Riverside Forest Products.
<b>TSR</b>	Transmission Service Rate, applicable to industrial customers taking electricity service at high, transmission-level voltages
<b>UCA</b>	BC Utilities Commission Act
<b>US\$</b>	U.S. dollars
<b>WKP</b>	West Kootenay Power and Light Corporation, a predecessor to FortisBC
<b>ZCHL</b>	Zellstoff Celgar Holdings Ltd.
<b>ZCL</b>	Zellstoff Celgar Limited
<b>ZCLP</b>	Zellstoff Celgar Limited Partnership

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## I. INTRODUCTION AND SUMMARY

1. Through its Canadian affiliates, Zellstoff Celgar Limited and Zellstoff Celgar Limited Partnership (collectively “Celgar”), Mercer owns and operates an industrial plant in Castlegar, British Columbia (the “Celgar Mill” or the “Mill”) that utilizes an integrated, joint production process to produce Northern Bleached Softwood Kraft (“NBSK”) market pulp and to generate biomass-based, “green” electricity.

2. The regulatory issue in dispute concerns the extent and conditions under which the British Columbia Province permits the Celgar Mill to purchase electricity to meet the needs of its pulp operations from its local electric utility, at normal rates based on the actual “embedded costs” of service,<sup>1</sup> while the Mill is selling its self-generated electricity.<sup>2</sup> This industry practice is referred to as “arbitrage.”<sup>3</sup> Arbitrage in the form of simultaneous sales and purchases of electricity by self-generators occurs because the market price for biomass-based green electricity has at times been significantly higher than the embedded cost rates that electric utilities in British Columbia charge their industrial customers, as these utilities benefit from relatively low-cost hydroelectric generating stations installed many decades ago.

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<sup>1</sup> “Embedded cost” electricity refers to the total cost of all a utility’s electricity resources, including the depreciation expense associated with the historical costs of generation assets, divided by the total electricity volume, which yields an overall average unit cost of electricity. The British Columbia Utilities Commission (“BCUC”), the Provincial public utility regulatory agency, has defined embedded cost of service power as “the weighted average cost of existing sources of power in a utility’s resource stack.” C-21, BCUC, Order Number G-191-13 and Accompanying Reasons for Decision (22 November 2013) (“*Kelowna Decision*”) at 6 n.2.

<sup>2</sup> In this Memorial, Mercer uses the terms “electricity,” “energy,” and “power” interchangeably.

<sup>3</sup> As the BCUC has noted, however, true arbitrage can only occur when a customer purchases more utility energy than is required to service its own electricity needs, and resells the excess energy. C-21, *Kelowna Decision*, at 22. See also C-26, BC Hydro, Information Report (June 2012) at 9 (“The simultaneous purchase and sale of a commodity such as electricity to profit from unequal prices is commonly referred to as ‘arbitrage.’”).

3. Through actions taken in 2009 by the British Columbia Utilities Commission (“BCUC” or the “Commission”), with the involvement of the BC Hydro and Power Authority (a British Columbia state-owned electric utility and state enterprise) (“BC Hydro”), the Province has denied Celgar all access to electricity from its local utility, FortisBC, at embedded cost rates when Celgar is selling electricity. In January 2009, the BCUC issued Order G-48-09, which effectively prohibited FortisBC from providing embedded cost electricity to self-generators in its service territory, while they are selling electricity, except on a “net-of-load” basis. Under such Order, Celgar must first use its self-generated electricity to meet its own electricity needs, commonly referred to as “load,” prior to selling electricity, a requirement that has been termed “net-of-load.”

4. Consistent with this net-of-load standard, as part of its process for entering into an electricity purchase agreement (“EPA”) with Celgar in January 2009, BC Hydro determined and fixed what it terms Celgar’s “generator baseline,” at the level of Celgar’s 2007 load. The BCUC then approved and made effective the EPA containing this generator baseline in June 2009.

5. A “generator baseline” or “GBL” is a term used by BC Hydro in its electricity purchase contracts with self-generators, at the express direction of the BCUC, to delineate the level of self-generated electricity a customer must use to self-supply its own load and below which it cannot sell to *any* person or entity. The GBL also defines the level of access the customer will have to embedded cost energy from its utility to meet its load. This level is equal to its load minus its GBL. With its GBL set by BC Hydro and the BCUC at the level of its 2007 load, Celgar, since 2009, has been afforded no access to embedded cost electricity from its utility while selling electricity.

6. The practical effect of these two direct regulatory restrictions on access to embedded cost utility power — the BCUC’s Order G-48-09 and the BC Hydro-set GBL — together and separately, is to prohibit Celgar from selling its biomass-based green energy, and realizing revenues from commercial sales of this valuable, premium energy service, unless it is “net-of-load” electricity — electricity it generates over and above its 2007 load.

7. This “net-of-load” standard to which the Province and BC Hydro have held Celgar constitutes treatment less favorable than that which the Province affords Canadian-owned and third-country owned pulp mills with self-generation capacity that also are selling electricity. Within the same political jurisdiction, and under the province-wide authority and jurisdiction of the BCUC, the Province permits these comparable mills to maintain access to embedded cost utility electricity while they sell a significant portion of their self-generated “below-load” electricity. In other words, these other mills are permitted to engage in arbitrage by purchasing some amount of utility electricity at low, embedded cost rates for their pulp manufacturing operations, while simultaneously selling some of their self-generated, “below-load” electricity at the higher, market-based rates obtainable for biomass-based green energy. These comparable pulp mills profit from such arbitrage.

8. No BC pulp mill other than Celgar that is selling its self-generated electricity is held to a net-of-load standard, and denied all access to embedded cost utility power while selling self-generated electricity. Instead, under a distinct BCUC Order issued in 2001, Order G-38-01, the Province applies a “historical usage” standard to these other mills, directing BC Hydro to define each mill’s GBL based on the amount of self-generated electricity that the respective mill historically used to meet its own load.

9. As examples, under this less-restrictive standard, the Province permits Howe Sound's Port Mellon pulp mill to arbitrage [REDACTED] of its below-load electricity, and Tembec's Skookumchuck pulp mill may arbitrage over [REDACTED] of its below-load electricity. For Celgar, the comparable percentage is zero.

10. As recently as 23 November 2013, the BCUC ruled that it was "unduly discriminatory" for a utility to hold one self-generation customer to a net-of-load standard and another to a GBL computed on the basis of historical usage. It is likewise "treatment less favorable" under NAFTA for the Province to hold Celgar to a net-of-load standard while applying to all other kraft pulp mills a historical usage baseline methodology, which affords them access to embedded cost utility electricity to facilitate some below-load electricity sales.

11. Indeed, Celgar is the only pulp mill with self-generation concerning which the Province has taken regulatory action to limit the mill's access to embedded cost utility electricity while it is selling self-generated electricity. Other pulp mills not only have lower relative GBLs compared to their generation or load, enabling them to access utility electricity and thus sell more below-load electricity than Celgar (which can sell none), but also most of these other mills actually agreed voluntarily to use some of their self-generated energy to meet a portion of their own load, oftentimes in exchange for compensation from BC Hydro. In particular, BC Hydro contributed funds [REDACTED] each toward the construction or financing of new generation at other mills, or provided other consideration, in exchange for the mills agreeing to meet a portion of their load with self-generated electricity and thereby "displace" electricity BC Hydro otherwise would have had to supply to the mills. In industry parlance, these are known as "load displacement" agreements.

12. Celgar obtained no such consideration from BC Hydro or any other Provincial instrumentality, and never voluntarily agreed to use its self-generated electricity to displace some or all of its own load. The Province, by regulatory action and without compensation, thus is forcing Celgar to use its self-generated electricity to displace its own load, whereas BC Hydro has provided valuable consideration to others to do so.

13. Because Canada is responsible under NAFTA for the actions of British Columbia, including the BCUC, Canada has breached Articles 1102 and 1103 of NAFTA by according Mercer and its investments less favorable treatment than it has accorded to Canadian and third-country investors and their investments in like circumstances in British Columbia. Because Canada is obligated under NAFTA Chapter 15 to ensure that its state enterprises comply with the obligations of Article 1102 and 1103, Canada also has breached Article 1503(2) with respect to any measures imposed exclusively by BC Hydro.

14. In addition, the procedures and standards used by BC Hydro and the Province to determine the amount of arbitrage that is permissible (or the amount of below-load self-generated electricity that an industrial self-generator may sell at market rates and replace with purchases from its utility at embedded cost rates) are not well-established or transparent. There is no statute governing this issue, nor has the Province adopted any written regulations, policies, guidelines, or procedures.

15. The BCUC has explicitly delegated the task of setting the GBL, and, correspondingly, the degree of access a self-generator is afforded to embedded cost utility electricity to meet the remainder of its load, to the Province's utilities, and almost exclusively to BC Hydro, because BC Hydro has purchased the vast majority of the energy sold by self-generators in the province. Yet, when it made these GBL determinations, BC Hydro had no



written policies or procedures for determining generator baselines, no internal controls, and no apparent mechanism for ensuring non-discriminatory treatment. Indeed, it issued written guidelines for GBL determinations only in June 2012, long after it had set most GBLs, and after Celgar had filed its Notice of Claim under NAFTA.

16. Yet, even these unapproved, *post-hoc* guidelines are too vague to enable the calculation of a GBL or to explain or validate past determinations that BC Hydro has made. Indeed, on 13 December 2013, the BCUC commented that BC Hydro's guidelines "are fairly general, subject to considerable interpretation, not necessarily transparent and have not been approved by the Commission."<sup>4</sup>

17. BC Hydro has unfairly and arbitrarily used different historical baseline periods for different mills, ignoring the cyclical nature of the pulp industry and changes over time in other factors that affect the economics of self-generation. The duration of the baseline period BC Hydro uses also varies from mill to mill, and even the basic calculation methodology it applies has not on its face been consistent. BC Hydro has revisited and amended baselines and baseline periods on an *ad hoc* basis. The BCUC then has ratified BC Hydro's GBL determinations by approving the EPAs in which they are embodied (although many have been exempted from BCUC review).

18. Further, BC Hydro routinely shields its determinations from public scrutiny and comment through confidentiality agreements, such that no mill can ascertain any other mill's GBL or how it was computed. It thus is impossible for any mill effectively to argue to BC

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<sup>4</sup> C-27, Letter from Erica Hamilton, Commission Secretary, to Janet Fraser, Chief Regulatory Officer, BC Hydro (13 December 2013) (Exhibit A-17 to *BC Hydro PPA - RS 3808, TS No. 2 & 3 Proceeding*) at 1.

Hydro or to the BCUC that its treatment was unjust or discriminatory, to the extent the Province even provides for BCUC review.

19. The whole process is rendered all the more unfair by the fact that BC Hydro is not a disinterested regulator but is instead a financially self-interested party. In most cases, it is either the purchaser of the self-generator's power, or it agrees to sell the electricity through its affiliated trading company, Powerex, and in all cases to date except for Celgar, it is the supplying utility.

20. In failing to provide reasons for its differences in treatment or any transparency in its regulatory regime for industrial self-generators, particularly those like Celgar that are not direct customers of BC Hydro, and through its arbitrary, discriminatory, and unfair actions that have denied Celgar regulatory fairness, Canada also has breached its obligations under NAFTA Article 1105 (and Article 1503(2) with regard to the conduct of BC Hydro) by failing to provide fair and equitable treatment in accordance with the minimum standard.

**PART I: BACKGROUND**

**II. STATEMENT OF THE FACTS**

**A. THE PARTIES**

**1. The U.S. Claimant and its Enterprise in Canada**

21. Claimant Mercer International Inc. (“Mercer”) is a Washington state corporation.<sup>5</sup> Mercer is a public company whose shares are traded on both the NASDAQ global market under the symbol “MERC” and on the Toronto Stock Exchange under the trading symbol “MRI.U.” Its registered address is as follows:

14900 Interurban Avenue South  
Suite 282  
Seattle, WA 98168  
United States of America

22. Zellstoff Celgar Limited (“ZCL”) is a corporation incorporated on 22 October 2004, under the laws of the Province of British Columbia, Canada.<sup>6</sup> At all relevant times, Mercer (or its predecessor, the business trust) has wholly-owned and controlled ZCL.<sup>7</sup> ZCL has been operating in Canada since February 2005, when it paid US\$ 210 million to acquire the land

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<sup>5</sup> Witness Statement of David Gandossi (28 March 2014) (“Gandossi Witness Statement”), ¶ 39.

<sup>6</sup> Gandossi Witness Statement, ¶ 39. On 22 October 2004, Mercer incorporated a BC corporation, 0706906 BC Ltd. to act as the acquiring company for the purchase of the Mill. Mercer wholly-owned this company. On 14 February 2005, 0706906 BC Ltd. changed its name to Zellstoff Celgar Limited. C-197, British Columbia Ministry of Finance Corporate and Personal Property Registries, Certificate of Change of Name, No. BC0706906 (14 February 2005). Gandossi Witness Statement, ¶ 39 n. 25.

<sup>7</sup> Gandossi Witness Statement, ¶ 39; *see also* C-156, Central Securities Register, “Zellstoff Celgar Limited.”

and all of the assets of the Celgar Mill from its prior owner, Stone Venepal (Celgar) Pulp, Inc.<sup>8</sup> (“Stone Venepal”), a bankrupt company being run by KPMG Inc. as receiver.<sup>9</sup> ZCL’s registered address is as follows:

925 West Georgia Street  
Suite 1000  
Vancouver, BC  
V6C 3L2  
Canada

23. Zellstoff Celgar Limited Partnership (“ZCLP”) is a partnership registered under British Columbia law on 10 January 2006. On the same date, ZCL entered into a limited partnership agreement, with itself as the general partner, to form ZCLP. Through a series of transactions, ZCL transferred the Celgar Mill to ZCLP on 1 March 2006.<sup>10</sup> ZCL retained legal title to the land, which it holds in trust for ZCLP. ZCLP was created as part of a restructuring of the way Mercer held the Celgar Mill’s assets for tax efficiency purposes.<sup>11</sup> ZCL is the sole general partner, and receives 0.10 percent of the partnership’s profits in consideration for acting

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<sup>8</sup> See Gandossi Witness Statement, ¶ 40. Throughout this Memorial, we use the currency symbols “C\$” to indicated Canadian dollars, “US\$” to indicated U.S. dollars, and “€” to indicate Euros.

<sup>9</sup> ZCL paid an additional US\$ 16 million for Stone Venepal’s working capital. Gandossi Witness Statement, ¶ 40 n. 27.

<sup>10</sup> Gandossi Witness Statement, ¶ 41. ZCHL was incorporated under BC law on 9 August 2005. From 10 January 2006 to 4 April 2006, it held 2,697,739 limited partnership units of ZCLP, comprising 100 percent of such units. ZCHL transferred its corporate seat from British Columbia to Delaware on 1 March 2006. Mercer International Inc. acquired its units of ZCLP on 4 April 2006, through amalgamation with ZCHL. For a brief period of time on 1 March 2006, ZCHL owned all of the Mill assets (with the exception of legal title to the lands which remained with ZCL) as it acquired same from ZCL and then subsequently transferred such assets to ZCLP. Gandossi Witness Statement, ¶ 41 n. 30.

<sup>11</sup> Under a partnership structure, income is attributable at the partner level, rather than being earned and taxed at the operations level and again when dividends are distributed. Gandossi Witness Statement, ¶ 41 n. 32.

as general partner.<sup>12</sup> Mercer is the sole limited partner, and owns 100 percent of ZCLP's capital and receives 99.90 percent of its profits.<sup>13</sup>

24. In addition to controlling the Celgar Mill, Mercer also controls two NBSK pulp mills in eastern Germany: (1) Rosenthal (located near the town of Blankenstein) and (2) Stendal (located near the town of Stendal). Mercer acquired its first pulp operations in 1994, with the acquisition of its Rosenthal mill and other assets in the former East Germany. Mercer then converted the mill from the production of dissolving sulfite pulp to kraft pulp. The aggregate cost was roughly €361.0 million, of which roughly €102.0 million was financed through grants from the German government to promote the revitalization of industry in the east. In September 2004, and also with German government assistance, Mercer completed its new, greenfield (previously undeveloped) construction of the Stendal mill, also in the former East Germany, at an aggregate cost of approximately €1.0 billion, in which it currently has an 83.4 percent interest.<sup>14</sup>

25. Mercer currently is the largest producer of NBSK market pulp in the world, with its mills having a combined rated capacity of over 1.5 million air dried metric tons ("ADMT").<sup>15</sup>

## **2. The Respondent and Other Relevant Canadian Governmental Entities**

### *a. Canada*

26. The Respondent in this case, Canada, is a sovereign state and a Party to NAFTA.

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<sup>12</sup> Gandossi Witness Statement, ¶ 41; *see also* C-198, Zellstoff Celgar Limited Partnership, Certificate of Limited Partnership (10 January 2006), ¶ 10.

<sup>13</sup> Gandossi Witness Statement, ¶ 41; *see also* C-198, Zellstoff Celgar Limited Partnership, Certificate of Limited Partnership (10 January 2006), ¶ 1.

<sup>14</sup> Gandossi Witness Statement, ¶ 10.

<sup>15</sup> Gandossi Witness Statement, ¶ 10.

*b. British Columbia*

27. British Columbia (“BC” or “Province”) is Canada’s westernmost province, located on the Pacific coast.<sup>16</sup> Along with the U.S. states of Washington and Oregon, BC is part of the Pacific Northwest region of North America, and borders the U.S. states of Washington, Idaho, and Montana on the south and Alaska on the northwest. The Province consists of three main geographic regions: Lower Mainland, Coast, and Interior.<sup>17</sup>

28. The Province’s fiscal year runs from April 1 to March 31, and it refers to fiscal years based on the calendar year in which its fiscal year ends. For example, it refers to the fiscal year running from April 1, 2007 - March 31, 2008 as Fiscal Year 2008 (“FY2008” or “F2008”). Differences between fiscal and calendar years can cause confusion,<sup>18</sup> and the Tribunal should be mindful, for example, that FY2008 falls mostly in 2007.

29. British Columbia has long had a resource-dominated economy, and the forestry sector, comprising logging, wood products, and pulp & paper products, is a significant driver of

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<sup>16</sup> BC is a constitutional monarchy, utilizing a parliamentary system to govern a population in 2013 of around 4.6 million. See C-28, *2013 Sub-Provincial Population Estimates*, BCSTATS.GOV, <http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/PopulationEstimates.aspx>. BC is led by a Premier, and her cabinet ministers, collectively known as the Executive Council. The Lieutenant-Governor of British Columbia is the vice-regal representative in British Columbia of the Canadian monarch, Queen Elizabeth II. The Lieutenant-Governor heads the Executive Council, and is referred to as the Lieutenant Governor in Council.

<sup>17</sup> The Lower Mainland is an area on the southwestern tip of the province, and comprises Greater Vancouver (the province’s largest city) and the Fraser Valley. About 60 percent of BC’s total population resides in the Lower Mainland. The Coast includes Vancouver Island and the western portion of the province — everything west of the Coast Mountains. The Interior encompasses the region east of the Coast Mountains, and including BC’s section of the Prairies in the northeast.

<sup>18</sup> In Province documents and data, it can be unclear whether a reference to a year is to the fiscal year or the calendar year.

the provincial economy.<sup>19</sup> According to the Province, almost 60 percent of its land base, comprising some 55 million hectares, is productive forestland.<sup>20</sup> In British Columbia, as in most Canadian provinces, the forests largely remain publicly-owned by the Province, which leases the rights to harvest standing timber to private companies in exchange for fees and various in-kind forest management responsibilities.<sup>21</sup> Although the relative importance of the forestry sector has been declining over the past few decades, and now accounts for only 2.4 percent of employment in the province,<sup>22</sup> sawmills, pulp mills, and paper mills remain the predominant employers in many areas.

30. Management of the forests, and oversight of the forestry sector, falls within the purview of the BC Ministry of Forests, Lands and Natural Resource Operations (“MOF”).<sup>23</sup>

31. The other Provincial Ministry whose actions are at issue in this case is the British Columbia Ministry of Energy and Mines (“MEM”), which is responsible for the energy sector, including electricity generation and distribution.

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<sup>19</sup> See C-29, 2013 British Columbia Financial and Economic Review, 73rd Edition (August 2013), available at <http://www.fin.gov.bc.ca/tbs/F&Ereview13.pdf>; C-30, *BC Forest Industry: Economics & Statistics*, COFI.ORG, <http://www.cofi.org/bc-forest-industry/economics-statistics/>.

<sup>20</sup> See C-31, *Forestry*, BRITISHCOLUMBIA.CA, <http://britishcolumbia.ca/Invest/Industry-Sectors/Forestry.aspx?gclid=CKvW6Mmq77oCFYtQOgodaQ0Aig>.

<sup>21</sup> C-31, *Forestry*, BRITISHCOLUMBIA.CA, <http://britishcolumbia.ca/Invest/Industry-Sectors/Forestry.aspx?gclid=CKvW6Mmq77oCFYtQOgodaQ0Aig>.

<sup>22</sup> C-71, *BC Forest Products Industry at a Glance*, COFI.ORG, <http://www.cofi.org/wp-content/uploads/2011/12/COFI-BC-Ind-At-A-Glance-2012.pdf>.

<sup>23</sup> The MOF has undergone several name changes in recent years. From 1988-June 2005, it was known as the Ministry of Forests, Forest Service. From June 2005 - October 2010, it was the Ministry of Forests and Range, Forest Service. From October 2010-March 2011, it was the Ministry of Forests, Mines, and Lands. See C-32, *British Columbia Forest Service History*, FOR.GOV.BC.CA, <http://www.for.gov.bc.ca/hfd/library/history.htm#Name>.

c. British Columbia Hydro and Power Authority

32. The British Columbia Hydro and Power Authority (“BC Hydro” or “Hydro”), is a Provincial Crown corporation, wholly-owned by the Province. It is an electric utility, created in 1961 through an amalgamation of several electric utilities, under the Hydro and Power Authority Act (“Hydro Act”).<sup>24</sup> It is the predominant electricity generator and distributor in the province, serving 95 percent of the population,<sup>25</sup> including the entire province except for the City of New Westminster, which runs its own electrical department, and the Kootenay-Okanagan region, located in the south central portion of the province, where an investor-owned utility, FortisBC Inc. (“FortisBC”), provides electric service and also supplies several local municipally-owned utilities. BC Hydro and FortisBC are the only significant integrated, regulated electric utilities operating in the province.<sup>26</sup>

33. BC Hydro acts only as an agent of the government, and is subject to the Government’s mandates and direction, as its sole shareholder.<sup>27</sup> Section 3(1) of the Hydro Act provides that “{t}he authority is for all its purposes an agent of the government and its powers may be exercised only as an agent of the government.”<sup>28</sup> BC Hydro reports to the MEM, and the Minister sits at the top of BC Hydro’s organizational chart.<sup>29</sup>

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<sup>24</sup> C-33, Hydro and Power Authority Act {RSBC 1996} Chapter 212 (2014), *available at* <http://canlii.ca/t/843s>.

<sup>25</sup> C-22, BC Hydro 2013 Annual Report (2013) at 6.

<sup>26</sup> Several small municipal utilities also exist, but they are largely exempt from BCUC regulation.

<sup>27</sup> *See, e.g.*, C-35, Shareholder’s Letter of Expectations Between the Minister of Energy and the Chair of the British Columbia Hydro and Power Authority for 2011/12 (20 January 2011).

<sup>28</sup> C-33, Hydro and Power Authority Act {RSBC 1996} Chapter 212 (2014), *available at* <http://canlii.ca/t/843s> § 3(1).

<sup>29</sup> C-22, BC Hydro 2013 Annual Report (2013) at 18.



34. BC Hydro operates 30 hydroelectric facilities and 3 natural-gas fueled thermal power plants, totaling approximately 12,000 megawatts (“MW”) of installed generation capacity.<sup>30</sup> Over 95 percent of the electricity generated by BC Hydro comes from hydroelectric facilities,<sup>31</sup> which consist mostly of large hydroelectric dams on the Columbia and Peace Rivers, built mostly between 1960 and 1980.<sup>32</sup> The age of these facilities (and thus their relatively low historical costs) explain why BC Hydro has low embedded costs for the power it generates itself.<sup>33</sup> For its fiscal year ending 31 March 2013, BC Hydro recognized revenues of C\$ 4.898 billion, and net income of C\$ 509 million.<sup>34</sup>

*d. Powerex Corp.*

35. In 1988, BC Hydro established Powerex Corp. (“Powerex”), a wholly-owned power trading subsidiary. As described in BC Hydro’s annual report, Powerex is a “key participant in energy markets across North America, buying and selling wholesale power,

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<sup>30</sup> C-22, BC Hydro 2013 Annual Report (2013) at 6. A watt is a unit of power, and measures the rate of energy conversion or transfer. A “kilowatt” equals 1,000 watts, and a “megawatt” equals one million (10<sup>6</sup>) watts, and 1,000 kilowatts.

<sup>31</sup> C-22, BC Hydro 2013 Annual Report (2013) at 6.

<sup>32</sup> See C-36, *Generation System*, BCHYDRO.COM, [https://www.bchydro.com/energy-in-bc/our\\_system/generation.html](https://www.bchydro.com/energy-in-bc/our_system/generation.html).

<sup>33</sup> There is a “fuel” cost associated with hydroelectric generation, as BC Hydro pays the Province water license fees. These license fees, however, are insignificant in comparison to fossil fuel costs. Moreover, as the Province is BC Hydro’s sole shareholder, it also is the case that the Province as a whole incurs no fuel cost for its hydroelectric generation facilities.

<sup>34</sup> C-22, BC Hydro 2013 Annual Report (2013) at 51. Under a Special Directive from the Province, BC Hydro is required to make an annual payment to the Province on or before 30 June of each year. The payment is equal to 85 per cent of the Company’s net income for the most recently completed fiscal year, with certain exceptions tied to the company’s debt-to-equity ratio. The payment accrued (and presumably paid) for the year ending 31 March 2013 was C\$ 215 million. C-22, BC Hydro 2013 Annual Report (2013) at 51.

renewable energy, natural gas ancillary services, and financial energy products and services.”<sup>35</sup>

For its fiscal year ending 31 March 2013, Powerex had trading revenues of C\$ 1.731 billion.<sup>36</sup>

e. *The British Columbia Utilities  
Commission*

36. The BCUC is a regulatory agency of the Province, established in 1980 and operating under and administering the Utilities Commission Act (“UCA”).<sup>37</sup> All members of the Commission are appointed by the Lieutenant Governor in Council.<sup>38</sup>

37. The Commission is responsible for supervising and regulating all public utilities in BC, including both BC Hydro and FortisBC. Its jurisdiction is province-wide. Unless excepted, the BCUC must authorize the construction and operation of all new public utility plants, approve the issuance of securities by a public utility, approve mergers involving a public utility, and approve or set all rates charged by a public utility, among other functions.<sup>39</sup> Rates may not be unjust, unreasonable, or unduly discriminatory or unduly preferential, and must yield fair and reasonable compensation to the public utility or a fair and reasonable return on the appraised value of its property.<sup>40</sup> The Commission has the power to make legally binding rulings.

38. As relevant here, unless exempted, the BCUC must approve EPAs between BC Hydro and self-generators in the Province. Until BCUC approval is granted, such agreements

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<sup>35</sup> C-22, BC Hydro 2013 Annual Report (2013) at 16.

<sup>36</sup> C-22, BC Hydro 2013 Annual Report (2013) at 16.

<sup>37</sup> C-20, Utilities Commission Act, {RSBC 1996} Chapter 473 (2014) (“UCA”)

<sup>38</sup> C-20, UCA § 2.

<sup>39</sup> C-20, UCA §§ 45, 50, 53, 60.

<sup>40</sup> C-20, UCA § 59.

can have no legal effect. Put another way, these agreements are made effective only with the Commission's approval.<sup>41</sup>

39. The Provincial Government has regulatory powers under the UCA that can preempt the Commission's decision-making powers under certain circumstances. Under Section 3 of the UCA, the Lieutenant Governor in Council "may issue a direction to the commission with respect to the exercise of the powers and the performance of the duties of the commission, including, without limitation, a direction requiring the commission to exercise a power or perform a duty, or to refrain from doing either . . . ."<sup>42</sup> However, the Province may not invalidate Commission orders or decisions or require the Commission to rescind an order or decision.

40. Prior to the UCA, the Provincial Cabinet set BC Hydro's rates and approved its other activities. Both before and after the UCA, the Government has used its authority over BC Hydro and the Commission to advance public policy objectives. Over the 33 years of the Commission's existence, the BC Government has issued 87 directives to the Commission, 53 of which have been issued since 2003.<sup>43</sup> Among these actions, the Province has frozen rates on occasion, and exempted certain initiatives from Commission review.<sup>44</sup>

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<sup>41</sup> See also C-40, BCUC, Order Number G-61-12 (17 May 2012), at app. A, "British Columbia Utilities Commission Rules for Energy Supply Contracts for Electricity"; C-20, UCA § 71.

<sup>42</sup> C-20, UCA § 3.

<sup>43</sup> C-38, Tim Newton, Peter Ostergaard, and Chris Trumpy, *Industrial Electricity Policy Review Task Force Final Report* (31 October 2013) ("*2013 Industrial Electricity Policy Review*") at 63. This Task Force was launched in January 2013 by the BC Minister of Energy and Mines.

<sup>44</sup> BC Hydro increased its rates in April 1993, then the Government prevented further increases by capping BC Hydro's rates in 1996 and freezing them from 1997 to 2004. See C-240, Tax and Consumer Rate Freeze Act, RSBC 1996, c. 447; C-39, British Columbia Hydro and Power Authority Rate Freeze and Profit Sharing Act, 1998, SBC 1998, c. 4. See also C-38, *2013 Industrial Electricity Policy Review* at 63.

### 3. Relevant Non-Parties

#### a. FortisBC Inc.

41. FortisBC Inc. is a private, integrated, electric power producer and distributor that serves about 163,000 electric customers, directly and indirectly.<sup>45</sup> Its service territory is in the Kootenay and Okanagan regions in south central BC, and includes the cities of Kelowna, Osoyoos, Trail, Castlegar, Princeton, and Rossland, and it acts as the wholesale distributor of power to municipal distributors in the cities of Summerland, Penticton, Grand Forks, and Nelson.<sup>46</sup> The Celgar Mill is located in Castlegar, and receives its electricity from FortisBC, rather than BC Hydro.

42. FortisBC is a subsidiary of Fortis Inc., which acquired its BC electric generating and distribution assets in 2004. FortisBC was originally incorporated as the West Kootenay Power and Light Corporation (“WKP”) in 1897.<sup>47</sup>

43. FortisBC meets the electricity supply requirements of its customers through a mix of owned generation and short-term and long-term power purchase contracts. FortisBC owns four regulated hydroelectric generating plants on the Kootenay River, with an aggregate capacity of 223 MW, which in 2008 provided about 47 percent of the company’s energy needs.<sup>48</sup> The

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<sup>45</sup> C-41, Fortis Inc. 2012 Annual Report (2012) at 3.

<sup>46</sup> See C-42, *Electricity utility*, FORTISBC.COM, <http://www.fortisbc.com/About/ServiceAreas/ElectricityUtility/Pages/default.aspx>.

<sup>47</sup> C-43, FortisBC Inc. 2012 Annual Information Form for the Year Ended December 31, 2012 (15 March 2013) at 7.

<sup>48</sup> See C-14, BCUC, Decision Accompanying Order Number G-188-11 (14 November 2011) (“Decision G-188-11”) at 33; C-43, FortisBC Inc. 2012 Annual Information Form for the Year Ended December 31, 2012 (15 March 2013) at 8, 9. The four generating stations are the Corra Linn, Upper Bonnington, Lower Bonnington, and South Slocan Plants. These plants, along with four other hydroelectric plants owned by others, actually are coordinated and dispatched by BC Hydro under the Canal Plant Agreement, which enables the coordinated use of water flows,

[FOOTNOTE CONTINUED ON NEXT PAGE]

majority of FortisBC's electricity supply not supplied by its own generating plants is acquired through long-term power purchase contracts, including a 1996 Power Purchase Agreement with Brilliant Power Corporation and a 1993 Power Purchase Agreement with BC Hydro (the "1993 PPA").<sup>49</sup> According to the BCUC, in 2008, the former provided 26 percent of FortisBC's energy requirements, and the latter agreement provided 24 percent.<sup>50</sup> By 2012, that percentage had dropped to 12 percent.<sup>51</sup> Wholesale market purchases supplied the remainder of FortisBC's energy needs.<sup>52</sup>

44. The 1993 PPA, which took effect on 1 October 1993, is particularly relevant to this case. It provides FortisBC with additional electricity for purposes of supplying its load requirements (*i.e.*, the electricity demand of its customers) up to a maximum demand of 200 MW, and is FortisBC's principal source of residual supply. Energy bought pursuant to the PPA plays a vital role in enabling FortisBC to cost-effectively balance its resources and its load, because the amount of power available to FortisBC under the 1993 PPA is significant, it is provided at embedded cost rates (and not market rates), and on flexible terms (with variable volumes).

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

subject to the 1961 Columbia River Treaty between Canada and the United States. C-43, FortisBC Inc. Annual Information Form for the Year Ended December 31, 2012 (15 March 2013) at 9-10.

<sup>49</sup> The 1993 PPA had a term of 20 years. BC Hydro and FortisBC have negotiated a replacement agreement, which BC Hydro filed for approval with the BCUC in 2013 (C-162, BC Hydro Application for Approval of New Power Purchase Agreement with FortisBC (24 May 2013)). That proceeding has not yet concluded, so the 1993 PPA remains in effect as of the date of this Memorial.

<sup>50</sup> C-14, Decision G-188-11 at 33.

<sup>51</sup> See Expert Report of Brent C. Kaczmarek, Navigant Consulting (31 March 2014), ¶ 65.

<sup>52</sup> Kaczmarek Expert Report, ¶ 63.

45. Based on its own data and publicly available load data concerning FortisBC, Celgar estimates that the 129.8 GWh of electricity it purchased from FortisBC in 1992 (the year before the PPA took effect) accounted for a little over 5 percent of FortisBC's total energy requirements.<sup>53</sup> Because Celgar at the time was FortisBC's largest single customer, and accounted for such a significant portion of FortisBC's total energy requirement, Celgar's needs at the time would have been taken into account in structuring the PPA and determining its total energy cap.

46. The only pulp mill in FortisBC's electricity service territory is the U.S.-owned Celgar Mill. All other BC pulp mills are located in BC Hydro's service territory.

## **B. THE BUSINESS OF PULP MILLS WITH ELECTRIC GENERATION**

### **1. One Production Process, Two Products**

47. The Celgar Mill is situated on a 400 acre site in Castlegar, BC. It is located in the BC Interior, on the south bank of the Columbia River, roughly 600 kilometers east of Vancouver, and 32 kilometers north of the Canada-U.S. border.

48. The Celgar Mill is a large-scale, modern NBSK mill, completely rebuilt in 1992-93 by its then-owner, Stone Venepal.<sup>54</sup> Through an integrated production process, the Mill is in the business of producing and selling both NBSK market pulp<sup>55</sup> and biomass-based green electricity. It is a single line mill with two pulp drying machines. The Mill currently also has

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<sup>53</sup> Witness Statement of Brian Merwin (28 March 2014) ("Merwin Witness Statement"), ¶ 66 n. 35.

<sup>54</sup> Merwin Witness Statement, ¶ 30.

<sup>55</sup> NBSK pulp is used as a reinforcement fiber source in the production of paper, tissues, and paper-related products. Paper products are produced from both recycled materials and virgin fiber. The two major types of virgin fibers are bleached hardwood kraft pulp ("BHKP") and bleached softwood kraft pulp ("BSKP").

two turbine generators capable of producing 52 MW and 48 MW of electricity, respectively, for a total rated generation capacity of 100 MW.<sup>56</sup>

49. The Mill is interconnected with the FortisBC electric system through high voltage transmission at an electric substation located adjacent to its plant. Celgar owns the substation, and FortisBC owns the transmission lines. Celgar receives electricity from FortisBC at this point of interconnection, and transmits the electricity it sells over the same lines and at the same point of interconnection. The Celgar Mill is not directly interconnected with the BC Hydro electric system.<sup>57</sup>

50. The Mill has electricity meters on both of its turbine generators as well as at its point of interconnection with FortisBC. It thus maintains data both on the amount of electricity it generates, as well as the net electricity flows into or out of the plant.<sup>58</sup>

51. Modern kraft pulp mills invest in both pulp production and electricity “cogeneration” because they realize significant synergies in producing both in a highly interdependent, joint production process.<sup>59</sup> The principal raw material input into the Celgar Mill’s production process is wood chips, which the Mill purchases from Canadian and U.S. sawmills located in its vicinity.<sup>60</sup> Wood chips typically account for some 50-60 percent of the cash production costs for a kraft pulp mill.<sup>61</sup>

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<sup>56</sup> Merwin Witness Statement, ¶ 28.

<sup>57</sup> Expert Statement of Elroy Switlishoff (27 March 2014) (“Switlishoff Expert Statement”), ¶ 218.

<sup>58</sup> Switlishoff Expert Statement, ¶ 219

<sup>59</sup> Switlishoff Expert Statement, ¶ 38; *see also* Gandossi Witness Statement, ¶ 21 (noting that the Celgar Mill “utilizes an integrated, joint production process to produce market pulp and generate electric power.”); Merwin Witness Statement, ¶ 1.

<sup>60</sup> These wood chips are a by-product of lumber production, and Celgar purchases its wood chips from sawmills in British Columbia and the United States. Due to its low value-to-weight ratio,  
*[FOOTNOTE CONTINUED ON NEXT PAGE]*

52. Wood chips contain three main components (apart from water): cellulose fibers (desired for papermaking), lignin (a polymer that binds the cellulose fibers together), and hemicelluloses (sugar polymers). The kraft process is a chemical process that converts wood chips into pulp — a thick fiberboard material — by removing lignin and hemicelluloses from the wood to free the cellulose fibers, through processes that involving cooking the chips under high pressure with chemicals in a digester. Cooked pulp flows out of the digester and is washed and screened to remove most of the residual spent chemicals and partially cooked wood chips. The pulp then undergoes a series of bleaching stages where the brightness of the pulp is gradually increased. Finally, the bleached pulp is sent to the pulp machine where it is dried to achieve a dryness level of more than 90 percent. The pulp is then ready to be baled for shipment to customers.

53. A significant feature of modern kraft pulping technology is the recovery system, whereby chemicals used in the cooking process are captured and extracted for re-use, which reduces chemical costs and improves environmental performance, and the energy content of the wood is extracted to produce heat and electricity.<sup>62</sup> The spent cooking liquid from the digester is known as “black liquor,” an aqueous solution of lignin residues, hemicellulose, and spent

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*[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]*

wood chips cannot economically be transported large distances. Thus, wood chip markets tend to be regional. The Celgar Mill also buys pulp logs, which it then converts into chips. Pulp logs are lower quality logs left over from logging that are unsuitable for the production of lumber.

Lumber generally is the highest value product that can be produced from a log, so logs that can be used to produce lumber are sent to sawmills. Pulp and paper mills then purchase the wood chips generated from those portions of the debarked log that cannot be extracted as lumber. Wood chip production and pricing in the British Columbia interior, where the Celgar Mill is located, fluctuates. Availability declines and prices rise when lumber production falls.

<sup>61</sup> Merwin Witness Statement, ¶ 8 n. 1.

<sup>62</sup> Recovery boilers were first developed in the 1930s as a means of recovering the kraft process chemicals.



chemicals. Because the black liquor contains more than half the energy content of the wood fed into the digester, it is an ideal biofuel. The Mill concentrates the black liquor through evaporators, and then burns the concentrated fuel in a “recovery boiler” to generate high-pressure steam and to recover the cooking chemicals.<sup>63</sup>

54. At the Celgar Mill, additional high-pressure steam is generated by a “power boiler” through the combustion of biomass consisting of bark and other wood residuals from sawmills and the Mill’s own woodrooms (known as “hog fuel”), and residue generated by the effluent treatment system. When necessary or economical, the Mill may also burn natural gas to generate steam.<sup>64</sup>

55. The steam produced by the recovery and power boilers is used to power the two turbine generators to generate electricity, as well as to provide heat for the Mill’s digesting and pulp drying processes, and to heat the Mill.<sup>65</sup> High-pressure steam contains two forms of energy — kinetic energy (pressure) and thermal energy (heat). A turbine generator harvests the kinetic energy in high-pressure steam to turn the turbine and generate electricity. The steam exiting the

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<sup>63</sup> See Switlishoff Expert Statement, ¶ 29.

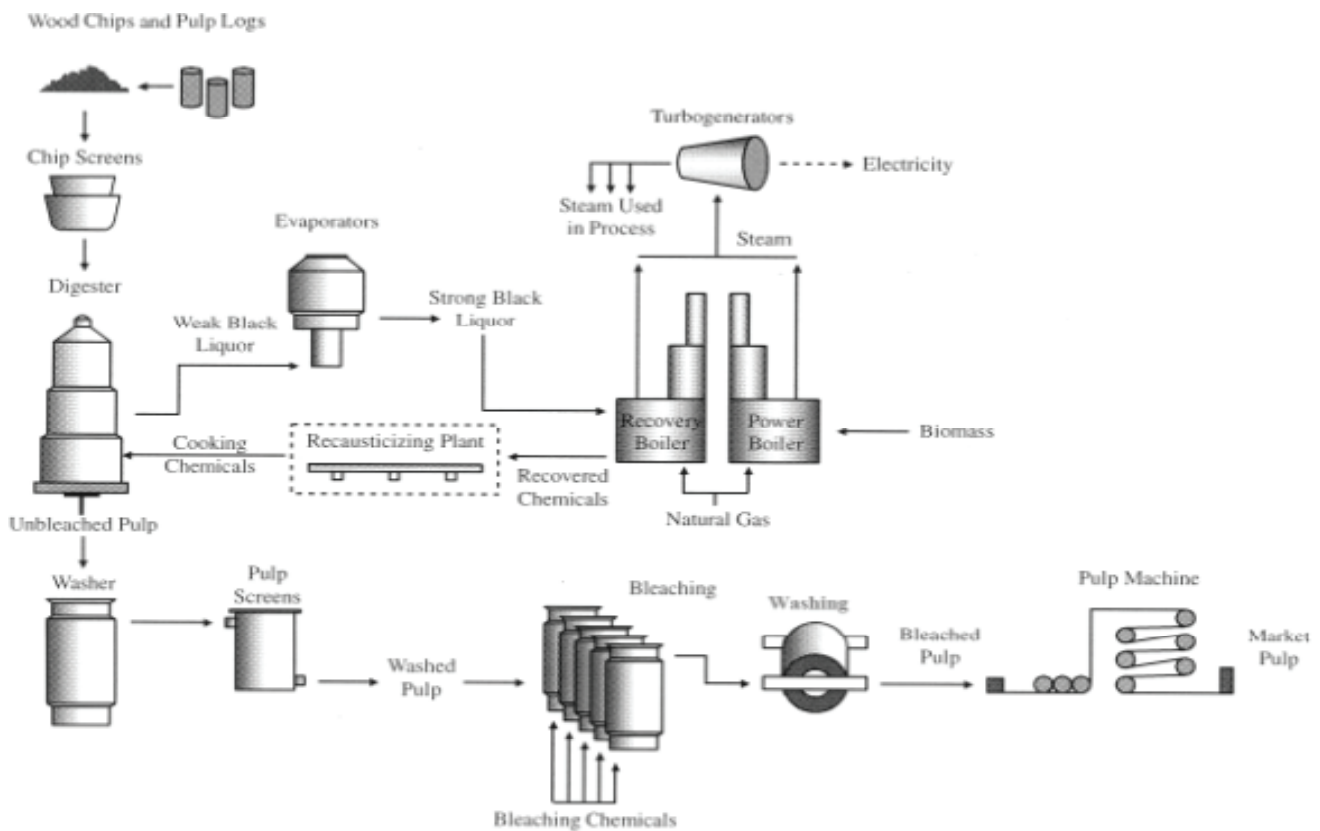
<sup>64</sup> See Switlishoff Expert Statement, ¶¶ 30, 45. Celgar’s use of natural gas in recent years has not been significant. Merwin Witness Statement, ¶ 26. Typically, the Mill’s consumption of natural gas is highest during plant startups, upsets, and outages, as the burning of natural gas can be initiated or terminated quickly. Celgar obtains Renewable Energy Certificates (“RECs”) from the Western Electricity Coordinating Council (“WECC”) for the green energy it produces from biomass. See C-167, *WREGIS*, *WEEC.BIZ*, available at <http://www.wecc.biz/WREGIS/Pages/AboutWREGIS.aspx>. In 2012, Celgar obtained RECs for [REDACTED] of the electricity it generated. C-173, Mercer, Celgar Energy Analysis: REC Allocation Output (11 February 2014).

<sup>65</sup> The simultaneous generation of useful heat and electricity is known as cogeneration. See Switlishoff Expert Statement, ¶ 38.

turbine is of lower pressure, and can be used to meet the Mill's low-pressure steam processes, including pulp drying and plant heating.<sup>66</sup>

56. The following diagram provides a simplified description of the interdependent kraft pulp manufacturing and electricity generation processes at the Mill:

**Figure 1**  
**Pulp Mill Process Diagram**



57. The Celgar Mill has a rated capacity of 520,000 ADMT of market pulp per year, and in 2013 it produced 447,935 ADMT.<sup>67</sup> Celgar recognized revenues of [REDACTED] in that year from its sales of 458,329 ADMT of market pulp. In 2013, Celgar also sold 127,729

<sup>66</sup> See Switliff Expert Statement, ¶ 33.

<sup>67</sup> Merwin Witness Statement, ¶ 28. Pulp typically is measured in units of Air Dried Metric Tonnes (“ADMT”).

megawatt hours (“MWh”) of electricity to BC Hydro, recognizing approximately C\$ 12.6 million in annual electricity sales revenue.<sup>68</sup>

58. Notably, these are not separate businesses. Unlike an electric utility, or an independent power producer, Celgar cannot economically produce electricity without also producing pulp. The fuel source for its steam turbine generators consists overwhelmingly of black liquor and wood residues, both of which are by-products of Celgar’s pulp production.<sup>69</sup> Absent these pulp by-products, Celgar could only generate electricity by burning natural gas in its recovery boiler or hog fuel and/or natural gas in its power boiler. Given current and recent natural gas prices, and the technology deployed in Celgar’s boilers, the Mill cannot burn natural gas economically or efficiently. Hog fuel consumption accounts for less than 10 percent of Celgar’s fuel utilization, and the Mill purchases natural gas only for startup, shutdown, and mill upset conditions.<sup>70</sup>

59. As Mercer’s power contracts, electricity markets, and regulatory expert Mr. Elroy Switlishoff explains, “An NBSK pulp mill installs generation capacity not as an independent business line but precisely to take advantage of the synergies provided by the simultaneous production of both pulp and electricity.”<sup>71</sup> Cogeneration allows for the efficient use of steam produced in the pulp-making process. As Mr. Switlishoff explains, “Through cogeneration, the

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<sup>68</sup> Merwin Witness Statement, ¶ 28. The amount shown for electricity sales is presented net of line losses and other adjustments. Celgar physically exported [REDACTED] across its meter, but received payment for 127,729 MWh. Merwin Witness Statement, ¶ 28 n.10.

<sup>69</sup> Merwin Witness Statement, ¶¶ 14–15. While Celgar does purchase small volumes of hog fuel from third parties, such purchased hog fuel does not represent any significant proportion of the mill’s overall fuel consumption.

<sup>70</sup> Merwin Witness Statement, ¶ 173 n. 69; C-174, Celgar, Annual Fuel Report, Contract 1: October 1, 2012 to September 30, 2013.

<sup>71</sup> Switlishoff Expert Statement, ¶ 38.

Celgar Mill achieves energy efficiencies, and reduces total fuel consumption by some 30-40 percent and greenhouse gas emissions by up to 50 percent over conventional separate generation facilities. Utilizing one integrated production process, the pulp mill produces two products.”<sup>72</sup>

## 2. NBSK Pulp Mill Electricity Needs

60. NBSK pulp mills require large amounts of electricity to run their pulp operations. The pulp machinery is very energy intensive, largely because of the thousands of electric motors used to run pumps, valves, rollers, sifters, and other equipment. The boilers in particular require very large motors to pump water, and fans to push air through the combustion system. Also, pulp is moved through the plant mostly in fluid form, which again requires large pumps. For example, in 2007 the Celgar Mill consumed 349 gigawatt hours (“GWh”) of electricity.<sup>73</sup>

61. Both FortisBC and BC Hydro provide different electricity rates to different classes of customers. Celgar, and other pulp mills, generally fall within a class of large industrial customers known as Transmission Service Rate (“TSR”) customers because they draw power from their local utilities at transmission-level voltage — *i.e.*, over transmission lines at voltages of 60,000 volts or higher.<sup>74</sup>

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<sup>72</sup> Switlishoff Expert Statement, ¶ 38.

<sup>73</sup> See Merwin Witness Statement, ¶ 59. A gigawatt equals 1 billion (10<sup>9</sup>) watts, and also equals 1,000 megawatts. By way of comparison, according to World Energy Council data, the average Canadian home consumes about 10,768 kilowatt hours (“kWh”) of electricity per year. See C-44, *Energy Efficiency/CO2 Indicators: Canada*, WORLDENERGY.ORG, <http://www.worldenergy.org/data/efficiency-indicators/> (2011 data). This means the Celgar Mill consumes enough electricity to power over 32,000 homes.

<sup>74</sup> Switlishoff Expert Statement, ¶ 220.

a. BC Hydro TSR Rate Schedules

(i) Rate Schedule 1823 Firm Service

62. As relevant here, BC Hydro generally provides electricity to its NBSK pulp mill and other TSR customers under Rate Schedules 1823, 1825, and/or 1880 (and their predecessors). Rate Schedule (“RS”) 1823 provides for “firm” service. Firm service means BC Hydro guarantees that the energy always will be available (except in the case of system failures), and BC Hydro prices firm service under RS 1823 at a rate that does not vary by time of use. Pulp mills in the BC Hydro service area purchase energy under RS 1823 to meet their normal operating needs not served by their own self-generation.<sup>75</sup>

63. Firm service can be thought of as encompassing a capacity component and an energy component. The utility must ensure that it has the resources available to meet the customer’s highest or “peak” energy demand, which is the capacity component. The energy component is the actual flow of electricity, which will fluctuate with the customer’s demand.<sup>76</sup>

64. BC Hydro’s charges for firm power under RS 1823 likewise have a capacity component and an energy component. The capacity charge is called a demand charge, and is billed in simplified terms based on the highest of the customer’s peak load in a billing period and other variables tied to prior consumption and contract terms. Thus if a mill’s average hourly energy consumption is 50 MW, but its consumption spiked at 65 MW at one or more hours in a billing period, its demand charge would be billed based on the 65 MW peak usage, because the utility was required to have 65 MW of generation capacity available throughout the billing

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<sup>75</sup> See Switlishoff Expert Statement, ¶ 220.

<sup>76</sup> Switlishoff Expert Statement, ¶ 221.

period to ensure that it could meet that peak load.<sup>77</sup> The capacity charge, moreover, has a ratchet mechanism, whereby a high peak load during November-February period results in increased capacity charges not only in the peak month but also through the next following February.<sup>78</sup>

65. Pulp mills have a high-energy intensity because they tend to operate year-round, 24-hours per day. In light of a pulp mill's continuous electricity usage, the energy component of the billing under RS 1823 would normally be much more significant than the demand charge. Typically, the billing ratio for an NBSK pulp mill would be roughly 80-90 percent for the energy charge and 10-20 percent for the demand charge.<sup>79</sup>

(ii) Rate Schedule 1825 and the  
Seasonality of BC Energy Demand

66. BC Hydro's TSR customers also have the option of taking firm service under RS 1825. RS 1825 provides time-of-use rates, instead of a simple "stepped rate." The Demand

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<sup>77</sup> BC Hydro's current demand charge is C\$ 6.353 per kVA of Billing Demand per Billing Period. Its current energy charge for new customers is 3.724 cents per kWh for all kWh per Billing Period. See C-45, British Columbia Hydro and Power Authority, Electric Tariff (30 May 2008), available at <https://www.BCHydro.com/content/dam/BCHydro/customer-portal/documents/corporate/tariff-filings/electric-tariff/00-BCHydro-electric-tariff.pdf> (effective 1 April 2013), RS 1823 at 45. A kVA refers to one kilovolt-ampere, and it is a measure of capacity rather than energy. It refers to the rate at which the customer is taking power rather than the amount of power it is taking. Switlishoff Expert Statement, ¶ 226

Pre-existing RS 1823 customers currently are subject to a "stepped rate" tariff for energy, described in Section III.A.1.4 below, whereby 90 percent of historical purchase amounts are billed at 2.332 cents per kWh and the remaining 10 percent at 7.36 cents per kWh. A Billing Period typically is a month. Switlishoff Expert Statement, ¶ 222.

<sup>78</sup> As Mr Switlishoff explains, ratchet charges "are charges related to the use of electricity in one billing period, that extend into future billing periods. For instance, a common feature of utility industrial electricity tariffs is a "ratchet" demand charge, whereby the maximum demand in any hour in the current billing creates the billing determinant for not only the current month, but also for the future 11 months. If the maximum demand in any hour of the future 11 months exceeds this amount, it then becomes the billing determinant for the future 11 months from the time when the new maximum demand was experienced, and so on. Switlishoff Expert Statement, ¶ 75 n. 11.

<sup>79</sup> Switlishoff Expert Statement, ¶ 227.

Charge is the same as under RS 1823, but the customer is charged different rates for energy consumed based on the time of day and season in which the consumption occurs.<sup>80</sup>

67. As noted, the overwhelming majority of BC Hydro's power is obtained from its own hydroelectric generating stations. Water flows used to power these stations vary from year-to-year based on precipitation (there are "high water" years and "low water" years), and they can vary based on the time of year. Flows normally would be lowest during the winter months when snow accumulates, and highest in the spring when the snow is melting. However, BC Hydro has several large reservoirs in which it can capture water and modulate water flows.<sup>81</sup>

68. Notably, climate conditions in BC are such that electricity demand is highest in the winter, when electricity is used to heat homes and buildings in the cold Canadian winter. Customers that can maximize their electricity consumption in the spring and summer and minimize it in the fall and winter, and on off-peak hours, can benefit from time-of-use rates, because BC Hydro charges its lowest rates in the spring (and during low demand hours of the day) and its highest rates in the winter (and during high demand hours)<sup>82</sup> reflecting its supply-demand balance.

69. With respect to their own generation profiles, pulp mills generally have fairly level production levels, with some modest seasonal variability. All other things being equal,

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<sup>80</sup> C-45, British Columbia Hydro and Power Authority, Electric Tariff (30 May 2008), *available at* <https://www.BC Hydro.com/content/dam/BC Hydro/customer-portal/documents/corporate/tariff-filings/electric-tariff/00-BC Hydro-electric-tariff.pdf> (effective 1 April 2013), RS 1823 at 48–51.

<sup>81</sup> Switlishoff Expert Statement, ¶ 228.

<sup>82</sup> C-45, British Columbia Hydro and Power Authority, Electric Tariff (30 May 2008), *available at* <https://www.BC Hydro.com/content/dam/BC Hydro/customer-portal/documents/corporate/tariff-filings/electric-tariff/00-BC Hydro-electric-tariff.pdf> (effective 1 April 2013), RS 1823 at 49.

electricity generation would be expected to drop slightly in the winter months as more steam is needed to meet the thermal needs of the pulp operations; correspondingly, pulp mills tend to use more electricity in the winter months due to increased lighting and heating needs.<sup>83</sup> Electricity generation may also cease for certain short periods due to planned maintenance outages, which a given mill may schedule at the same time each year. For example, the Celgar Mill typically will take a 10-14 day planned outage each year, for which maintenance on the recovery boiler typically provides the critical path. The Mill will also perform other routine maintenance at this time.<sup>84</sup>

(iii) Rate Schedule 1880 Non-Firm Service

70. Finally, NBSK pulp mills can obtain backup electricity service from BC Hydro under RS 1880, which provides for transmission-level service for standby and maintenance service. This is “non-firm” service, which BC Hydro provides only to the extent it has energy and capacity to do so. Standby service enables a pulp mill to obtain replacement power, for example, during its own generator outages, in which it is not operating one or more generators but still is consuming power it normally would self-generate and use internally.<sup>85</sup>

71. Because it is non-firm service, and BC Hydro is not obligated to maintain capacity to provide it, RS 1880 service is billed only with an energy charge and a nominal administrative charge. There is no demand charge, and no ratchet charge. BC Hydro currently

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<sup>83</sup> See Switlishoff Expert Statement, ¶ 230.

<sup>84</sup> Merwin Witness Statement, ¶ 17 n. 4.

<sup>85</sup> Switlishoff Expert Statement, ¶ 224.



provides such energy at a rate of 7.360 cents per kWh.<sup>86</sup> This is the same rate BC Hydro charges TSR customers for firm energy under Tier 2 of the RS 1823 stepped rate tariff.

b. FortisBC TSR Rate Schedules

72. FortisBC's TSR service offerings provide fewer options than does BC Hydro. FortisBC provides firm service, equivalent to BC Hydro's RS 1823 service, under RS 31. Since 1 January 2013, the energy charge has been 4.8 cents per kWh (as compared to BC Hydro's energy charge of 3.724 cents per kWh). In place of a demand charge, FortisBC imposes two separate capacity charges: a Wires Charge of C\$ 4.29 per kVA and a Power Supply Charge of C\$ 2.41 per kVA. The Power Supply Charge is applied to the customer's peak demand in the month, whereas the Wires Charge is applied to the highest of peak demand or two other variables similar to the variables used by BC Hydro.<sup>87</sup> Both apply a ratchet mechanism. For comparison purposes, the combined charges total C\$ 6.70 per kVA, which can roughly be compared to BC Hydro's Demand Charge of C\$ 6.353 per kVA. In light of the predominant importance of the energy rate to pulp mills, FortisBC's TSR rates are considered to be significantly higher for pulp mills than BC Hydro's TSR rates.<sup>88</sup>

73. Moreover, FortisBC does not have any approved rate schedule in effect for backup service, such as BC Hydro provides under RS 1880, but it does for time-of-use service, namely RS 33. Under RS 33, FortisBC had provided time-of-use rates to Celgar and others, until

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<sup>86</sup> C-45, BC Hydro, Electric Tariff (30 May 2008), *available at* <https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/tariff-filings/electric-tariff/00-bchydro-electric-tariff.pdf> (effective 1 April 2013), RS 1880 at 58.

<sup>87</sup> See C-46, FortisBC, Electric Tariff B.C.U.C. No. 2 For Service in the West Kootenay and Okanagan Areas: Terms and Conditions and Rate Schedules (issued December 20, 2010 and updated), Schedule 31 at Sheet 10.

<sup>88</sup> Switlishoff Expert Statement, ¶ 227.

the Commission ruled in Order G-156-10 (19 October 2010) that Celgar was ineligible to take service under RS 33.<sup>89</sup> Under a General Services Agreement with FortisBC, Celgar had used RS 33 from 2006 to 2010 to meet both its firm and non-firm energy requirements. Lastly, FortisBC purchased any electricity that flowed onto its system from Celgar, under a “Brokerage Agreement” between the two parties.<sup>90</sup>

### **3. The Economics of NBSK Pulp Mill Electricity Generation**

74. In simplified terms, the amount of electricity that a kraft pulp mill with self-generation physically can produce by is a function of the generation capacity of the turbine generator or generators the mill has installed and the amount of high-pressure steam the mill can produce to power such turbines. The capacity of a generator typically is specified in megawatts (“MW”), and the manufacture’s specified capacity for a particular generator is referred to as its “rated” or “nameplate” capacity. A pulp mill turbine generator can produce electricity at its rated capacity, however, only to the extent its recovery boiler and/or power boiler can generate sufficient high pressure steam to run the turbine or turbines at maximum output level.<sup>91</sup>

75. As Mr. Switlishoff explains, “Steam production is a function of the size and efficiency of the boilers and associated equipment, the number and duration of mill or generator outages, and the steam needs of the pulp mill’s industrial processes (‘process steam’). Only kinetic energy not used as process steam is available to power the turbines.”<sup>92</sup>

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<sup>89</sup> Switlishoff Expert Statement, ¶ 225.

<sup>90</sup> Merwin Witness Statement, ¶ 117.

<sup>91</sup> Switlishoff Expert Statement, ¶ 34.

<sup>92</sup> Switlishoff Expert Statement, ¶ 35.

76. Additional production constraints may also exist due to the need to maintain the plant's thermal balance, such that all of the thermal energy produced by the mill is consumed. These steam-related constraints can determine a pulp mill's "practical" electricity generation capacity.<sup>93</sup>

77. How much electricity a mill actually produces, however, is a function of its economics, as Mr. Switlishoff explains:

The economics of pulp mill generation reflect factors of supply and demand. With respect to supply, to generate electricity a pulp mill must first make fixed capital cost investments to enable electricity generation. Such capital investments fall into three categories. A pulp mill must invest in generation equipment -- acquiring and installing one or more steam turbine generators, and associated control equipment, piping, valves, and connectors. A pulp mill can also invest in electricity generation by increasing steam generation, through boiler improvements, improved recovery of black liquor, and the like. Finally, a pulp mill can invest in generation through capital projects that improve steam utilization in the pulp mill's pulp processes. Reducing certain process steam needs means more kinetic energy can be used in electricity generation. These investments can be made most efficiently when the pulp mill is first constructed, but can also be retrofitted in existing pulp mills.<sup>94</sup>

78. Fixed cost investments in steam and electricity generation at a kraft pulp mill are subject to the law of diminishing returns. At some point, the investment costs necessary to produce an incremental megawatt of electricity increase as the generation capacity increases, due to turbine efficiency issues, and the increasing costs of incremental steam generation and optimization improvements. A pulp mill's owner will incur capital costs to add or incrementally increase electricity generation to the extent it can earn a sufficient rate of return on its capital

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<sup>93</sup> Switlishoff Expert Statement, ¶ 36.

<sup>94</sup> Switlishoff Expert Statement, ¶ 39.

investment, and the level of investment will determine the pulp mill's rated generation capacity as well as its practical generation capacity.<sup>95</sup>

79. Once made, an investment to add or incrementally increase generation capacity is a sunk cost that plays little role in determining whether or to what extent a pulp mill runs its generators on a day-to-day basis. In general, a pulp mill with self-generating capability will generate whenever the pulp mill is operational (and not shut down for planned maintenance outages or for unplanned outages), its generator is operational, and, perhaps most relevant here, the economic benefits it receives from electricity production outweigh the mill's cash costs of production. Such benefits can include not only the net revenues received from electricity sales (when self-generated electricity is sold) but also the avoided costs of purchasing electricity to run the pulp mill (when self-generated electricity is used to meet some or all of the mill's own load). Cash (variable) operating costs include the costs of any fuel used to generate steam to power the turbines, maintenance costs, and labor. These variable costs do not include the depreciation expenses associated with purchasing and installing the turbine generators, boilers, and other equipment, or their financing costs, as such costs are fixed and the same irrespective of whether or to what extent the mill generates electricity.<sup>96</sup>

80. Of these variable costs, the fuel cost can be the most significant. Kraft pulp mills typically will burn all of the black liquor they produce. There is essentially no incremental cash cost to a kraft mill from burning black liquor to produce electricity. It is a by-product of pulp production, and thus does not have to be purchased. Indeed, the mill needs to burn black liquor to recover the pulping chemicals. Moreover, in BC, black liquor generally has no alternative

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<sup>95</sup> Switlishoff Expert Statement, ¶ 40.

<sup>96</sup> Switlishoff Expert Statement, ¶ 41.

uses.<sup>97</sup> In general, a pulp mill will burn all its black liquor to generate electricity as long as it is not closed because of low pulp prices.<sup>98</sup>

81. A pulp mill typically also will burn in its power boiler wood and effluent residues, to the extent it is equipped to do so. These fuels, which may include self-produced “hog fuel” (wood shavings, bark, and other forest residuals), are by-products with no real incremental cost and a low market value in BC.

82. A mill will increase its generation above what can be achieved by burning available black liquor and other pulp by-products by burning alternative fuels such as natural gas and/or additional hog fuel, either of which it must purchase at market prices, only when the revenues it can generate from electricity sales (or the purchased electricity costs it can avoid) exceed the incremental fuel cost. Significantly, this cost/revenue calculus can change over time, as the prices for biomass-based green energy, embedded cost utility electricity, natural gas, and hog fuel all fluctuate, both absolutely and relative to one another.<sup>99</sup>

83. For example, from 1992-2000, the Celgar Mill consumed 2-4 million gigajoules (“GJ”)<sup>100</sup> of natural gas for steam production annually.<sup>101</sup> The Mill used this steam both for the

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<sup>97</sup> Merwin Witness Statement, ¶ 14 n. 3. Tall oil and lignin, which together account for 20-25 percent of the volume of black liquor, can be extracted and sold, so the burning of black liquor does have an opportunity cost. At present, however, the Celgar mill has not installed the equipment necessary to extract these chemicals.

<sup>98</sup> Switlishoff Expert Statement, ¶ 42 n. 2.

<sup>99</sup> See Switlishoff Expert Statement, ¶ 51.

<sup>100</sup> A gigajoule (“GJ”) is equal to one billion (10<sup>9</sup>) joules. A joule is a unit of energy, work, and heat. It is the amount of work required to produce one watt of power for one second. A barrel of oil contains about six gigajoules of potential energy. Switlishoff Expert Statement, ¶ 229.

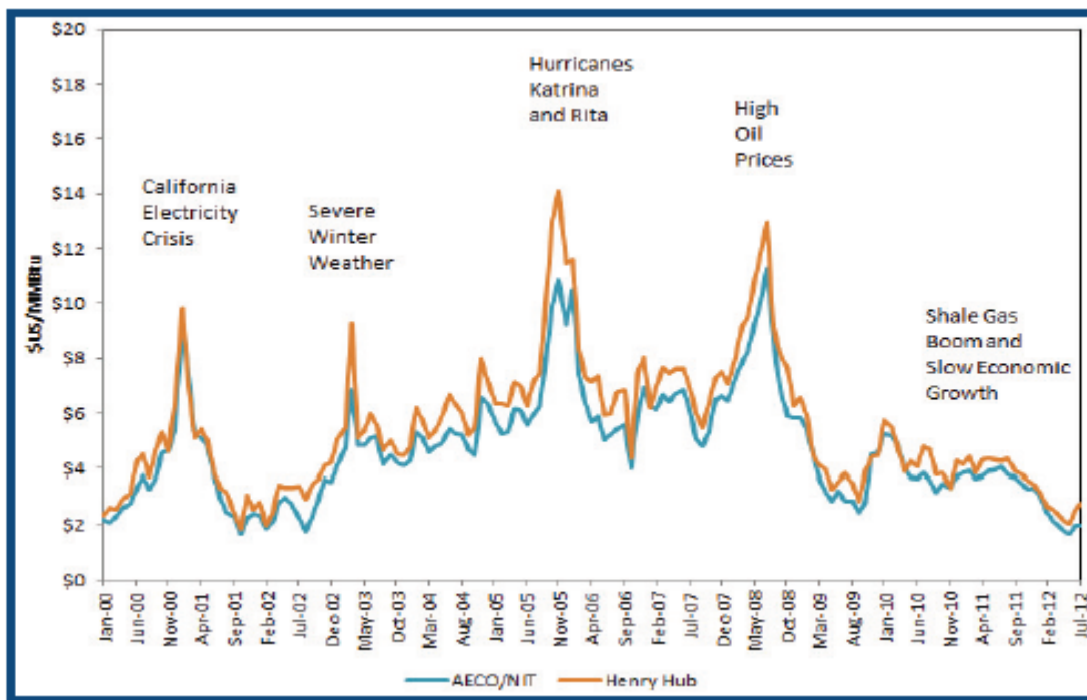
<sup>101</sup> Merwin Witness Statement, Annex A. Due to the significance of the data it contains, this Annex, which tabulates Celgar’s annual levels of generation, electricity purchases, electricity sales, load, natural gas consumption, and pulp production, from 1990-2013, also is provided separately as Annex A at the end of this Memorial, and is cited hereafter as “Annex A.”

pulp mill's processes and to power the new 52 MW turbine the Mill had installed in 1992.

However, prices for natural gas in BC rose sharply toward the end of 2000.<sup>102</sup> The Celgar Mill reacted by sharply curtailing its natural gas purchases, from 3.1 million GJ in 2000 to 1.3 million GJ in 2001, and declining further to a low of 303 thousand GJ in 2007. The Mill's electricity

<sup>102</sup> Because it can be shipped relatively inexpensively by pipeline, natural gas is a commodity product within North America, and its pricing is affected overall supply and demand conditions, which can be subject to market shocks, such as the California Electricity Crisis (discussed in detail below), severe winter weather, hurricanes in the Gulf of Mexico, and changes in the price of competing fuels, principally oil. The following chart illustrates the volatile nature of gas prices, and highlights some of the events that have caused prices to rise or fall:

**Figure 2**  
**North America Natural Gas Prices**  
**(US\$/MMBtu)**



Source: Canada National Energy Board, Canadian Energy Pricing Trends 2000-2010, available at C-47, *Energy Facts*, NEB-ONE.GC.CA (October 2011), available at <http://www.neb-one.gc.ca/clf-nsi/rnrgynfmtn/prcng/cndnrgprcngtrndfct2011/cndnrgprcngtrndfct-eng.html>.

generation declined as well in the aftermath of the curtailment of natural gas purchases, from 278.8 GWh in 2000 to 190.5 GWh in 2001 — a drop of 32 percent.<sup>103</sup>

84. The key point is that the electricity generation level achieved by a kraft pulp mill can vary significantly from year to year, and is affected by a variety of factors some of which are within the mill's control (*e.g.*, level of investment) and some of which are exogenous (*e.g.*, the relative prices of natural gas, hog fuel, purchased electricity, and biomass-based electricity) and subject to sharp change.<sup>104</sup>

#### **4. The Market for Celgar's NBSK Market Pulp**

##### *a. The Product*

85. Pulp is used in the production of paper, tissues and paper-related products. Pulp generally is classified according to fiber type, the process used in its production, and the degree to which it is bleached. Kraft pulp, a type of chemical pulp, is produced as described above — through a chemical process in which lignin, the component of wood which binds individual fibers, is dissolved in a chemical reaction thereby releasing the individual fibers. Chemically prepared pulp allows the wood's fiber to retain its length and flexibility, resulting in stronger paper products. Kraft pulp can be bleached to increase its brightness. Northern bleached softwood kraft pulp is noted for its strength, brightness and absorption properties and is used as a necessary component to produce a variety of products, including lightweight publication grades of paper, tissues and paper-related products.<sup>105</sup>

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<sup>103</sup> Merwin Witness Statement, Annex A.

<sup>104</sup> Switlishoff Expert Statement, ¶ 51.

<sup>105</sup> Gandossi Witness Statement, ¶ 16.

86. Pulp can also be produced using mechanical or semi-mechanical processes. Mechanical pulping methods physically tear the cellulose fibers from one another. The end product differs from kraft pulp because much of the lignin remains attached to the fiber, and strength is weakened because the fibers may be cut. Thermomechanical pulping, or TMP, heats the woodchips with steam and mechanically separates the fibers in a pressurized refiner, resulting in stronger fibers. TMP mills do not produce black liquor and thus do not typically install significant electricity generation capacity.

87. There are two main types of bleached kraft pulp: (1) softwood kraft, made from coniferous trees, and (2) hardwood kraft, made from deciduous trees. Softwood species generally have long, flexible fibers which add strength to paper while fibers from species of hardwood contain shorter fibers which lend bulk and opacity. Generally, prices for softwood pulp are higher than for hardwood pulp.<sup>106</sup> Most paper users of market kraft pulp use a mix of softwood and hardwood grades to optimize cost and performance factors.<sup>107</sup>

88. The Celgar Mill produces NBSK pulp, a strong, premium grade of bleached kraft pulp manufactured using tree species predominant in northern regions such as spruce, pine, fir, and larch.<sup>108</sup> It is a commodity product, sold globally, as an input into pulp and paper production.<sup>109</sup> NBSK pulp is produced predominantly in Canada, the United States, Scandinavia, and Russia.<sup>110</sup>

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<sup>106</sup> C-164, Foex & Pulpex, PowerPoint of Weekly Pulp PIX - US\$ List CIF Europe: through 14 January 2014; *see also* Gandossi Witness Statement, ¶ 16.

<sup>107</sup> Gandossi Witness Statement, ¶ 16.

<sup>108</sup> Gandossi Witness Statement, ¶ 16 and n. 12.

<sup>109</sup> Gandossi Witness Statement, ¶ 16.

<sup>110</sup> Merwin Witness Statement, ¶ 157 n. 68.



*b. The BC Market Pulp Industry*

89. In 2007, a study by PricewaterhouseCoopers reported that there were 13 mills in BC producing chemical pulp, owned by 9 companies. One, Neucel Specialty Cellulose, does not produce kraft pulp, but instead produces dissolving sulfite pulp, which is used to produce textile fibers like rayon.<sup>111</sup> The 12 kraft mills and their production volumes (which indicate relative size) were as follows:

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<sup>111</sup> Dissolving pulp is a different product sold into markets different than kraft pulp. It is used mostly to make textiles, like rayon, and other specialty cellulose products.



Tembec (now Paper Excellence)	Skookumchuck	1 mill (1968)	
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90. According to a January 2008 study by Pöyry Forest Industry Consulting, Inc. (“Pöyry”), British Columbia then accounted for around 24 percent of global NBSK capacity.<sup>115</sup> However, the study noted that BC’s NBSK producers are “relatively small compared to global pulp and paper companies . . . . NBSK capacity for the BC Interior is close to the industry average, however facilities are several years older than average.”<sup>116</sup>

91. Most BC kraft pulp mills were constructed over the period 1960-1989, when the BC industry was growing. Over that period, the forest industry was a key economic engine for BC’s economic growth, fiber was plentiful and low cost energy was available, and there was high demand for market pulp.<sup>117</sup> Since that time period, however, the BC industry has been in decline, competing with newer mills in Scandinavia and Western Europe.<sup>118</sup> The last new pulp mill constructed in BC was built decades ago.

92. Using an asset index to plot the overall asset quality and technical standard of the production assets, Pöyry in 2007 placed BC in the third and fourth quartiles:

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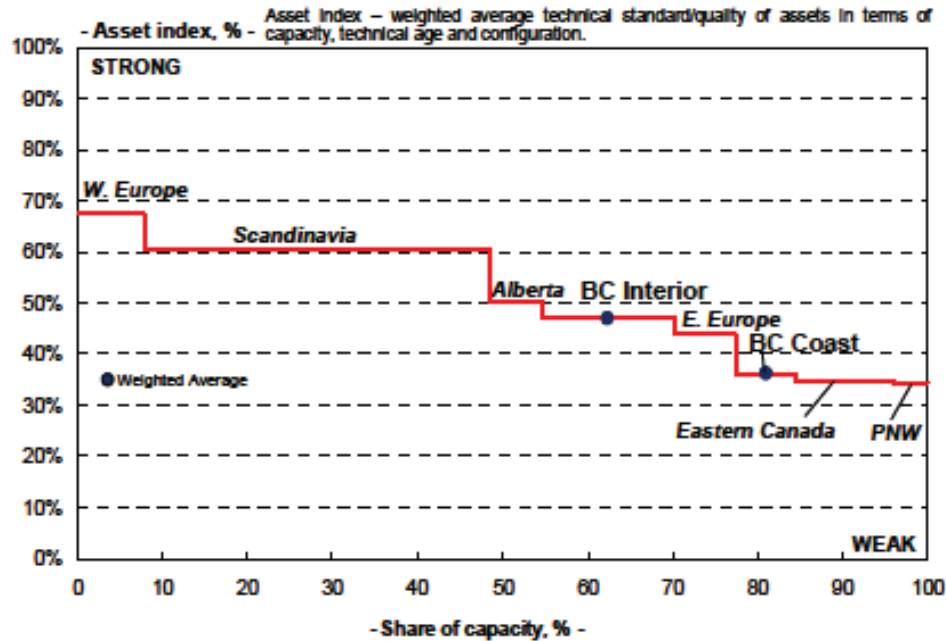
<sup>115</sup> C-52, Pöyry, BC Task Force: Future Development of BC’s Pulp and Paper Industry (January 2008) (“Pöyry Study”) at 6, Figure 1.

<sup>116</sup> C-52, Pöyry Study, at 7.

<sup>117</sup> C-52, Pöyry Study, at 4.

<sup>118</sup> C-52, Pöyry Study, at 4.

**Figure 4**  
**NBSK Current Asset Index**<sup>119</sup>



93. Pöyry also concluded that, “benchmarked to global competition, the BC industry is positioned in the third and fourth quartiles of the ‘delivered to natural markets’ cost curve.”<sup>120</sup> Pöyry noted, however, that there was great diversity among BC mills in terms of age, scale, and competitiveness. Mercer’s mills in Germany are at the top of the chart, and rate in the first 10 percent of global capacity. Celgar rates approximately at the 50 percent level in terms of global capacity, with average efficiency and competitiveness globally, but is among the most efficient and competitive mills in BC.<sup>121</sup>

<sup>119</sup> C-52, Pöyry Study, at 8.

<sup>120</sup> C-52, Pöyry Study, at 9.

<sup>121</sup> See Merwin Witness Statement, ¶ 58.

c. The Nature of the Market

94. Kraft pulp can be made in different grades, with varying technical specifications, for different end uses. High-quality kraft pulp is valued for its reinforcing role in mechanical printing papers, while other grades of kraft pulp are used to produce lower priced grades of paper, including tissues and paper-related products.

95. Growth in NBSK pulp demand in China and other emerging markets has, to a large extent, been driven by increased demand from tissue producers, as a result of economic growth and rising income levels and living standards in such markets. This has also led to an overall shift in demand for NBSK pulp, as demand from tissue producers has increased, while demand from printing and writing end uses has decreased. Correspondingly, demand has increased in Asia, particularly in China, and decreased in North America.<sup>122</sup>

96. In 2013, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

<sup>123</sup>

97. Kraft pulp production is highly capital-intensive. As noted above, the cost of Mercer's greenfield Stendal mill in Germany, which commenced commercial operations in 2004, was approximately € 1 billion. The rebuilding of the Celgar Mill cost C\$ 850 million in 1992-93. The machinery is designed to run continuously, and there are significant costs in idling or closing a mill. Pulp machinery thus either runs all out, or not at all (for maintenance, unplanned

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<sup>122</sup> Gandossi Witness Statement, ¶ 19.

<sup>123</sup> C-169, Celgar, Monthly Report Celgar, December 2013 and December 2008. *See also* Gandossi Witness Statement, ¶ 14 (showing Mercer's overall worldwide shipments).

outages, or closures). Production cannot be varied in response to changes in demand, and thus supply is inelastic.<sup>124</sup>

98. Whereas supply thus is relatively fixed in the industry in the short-term and medium-term, demand for kraft pulp is cyclical in nature and is generally related to global and regional levels of economic activity. In 2008, overall global demand for all kraft pulp types, including softwood, was negatively impacted by the weak global economic conditions and global financial and credit turmoil the world began to experience in the second half of that year, and which continued into the first half of 2009. Significant producer shutdowns and curtailments, along with strong demand from China, resulted in an improved supply-demand balance and improved prices in the second half of 2009 through 2010.<sup>125</sup>

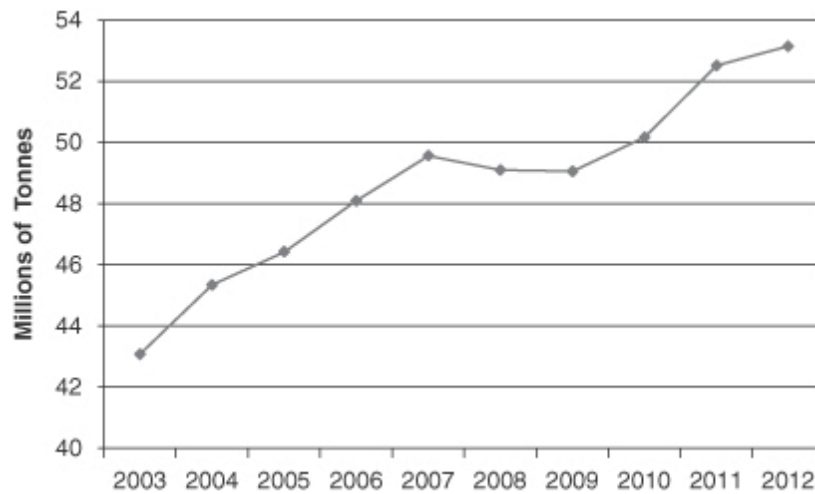
99. Between 2003 and 2012, worldwide demand for chemical market pulp grew at an overall average rate of approximately 2 percent annually. The following chart illustrates the global demand for chemical market pulp for this period, highlighting the 2008-2009 drop in demand:

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<sup>124</sup> Merwin Witness Statement, ¶ 17; Gandossi Witness Statement, ¶ 20.

<sup>125</sup> Gandossi Witness Statement, ¶ 20.

**Figure 5**  
**Estimated Global Chemical Market Pulp Demand**



Source: Pulp and Paper Products Council 2012

100. As a result of the supply and demand factors noted above, pulp prices are highly cyclical. In periods of declining demand, prices fall until the least efficient mills are forced to shut down as their cash costs exceed their revenues. In periods of increasing demand, prices rise, and idled or closed mills reopen, restoring a supply-demand balance. The length and magnitude of industry cycles have varied over time, but generally reflect changes in macro-economic conditions and levels of industry capacity. Pricing and demand are influenced by the balance between supply and demand, as affected by global macroeconomic conditions, changes in consumption and capacity, the level of customer and producer inventories, and fluctuations in exchange rates.<sup>126</sup>

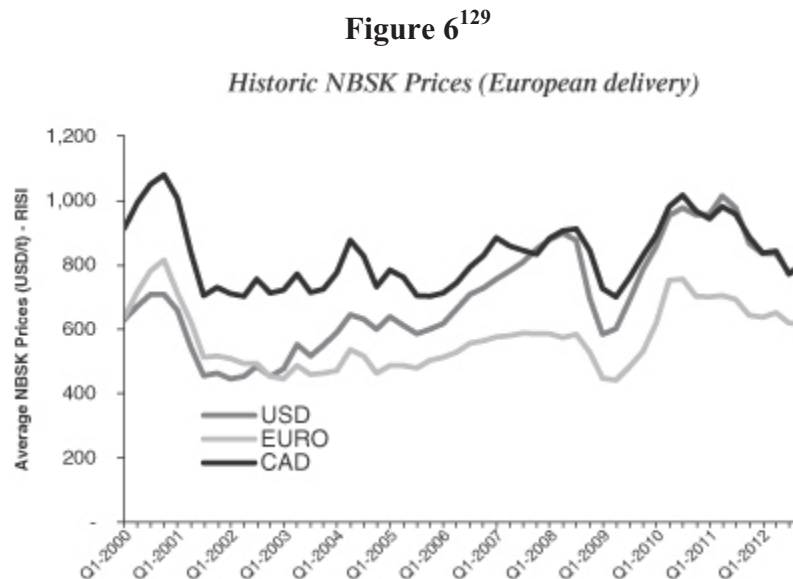
101. As Northern Europe has historically been the world's largest market, and NBSK is the premium grade, the European NBSK market pricing generally is used as a benchmark price

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<sup>126</sup> Merwin Witness Statement, ¶ 153.

by the industry, and it is the benchmark Mercer generally uses in portraying market conditions to its shareholders and in its securities filings.<sup>127</sup>

102. The monthly European list prices for NBSK pulp since 2000 have ranged from a low of approximately US\$ 435 per ADMT at the beginning of 2003 to a high of US\$ 1,030 per ADMT in mid-2011.<sup>128</sup> The following chart sets out the changes in list prices for NBSK pulp in Europe, as stated in U.S. dollars, Canadian dollars, and Euros for the periods indicated:



103. For the period at issue in the instant case, and as Mercer has explained to its shareholders in its securities filings, in 2006, pulp list prices increased steadily from

<sup>127</sup> Merwin Witness Statement, ¶ 157 n. 68. Mercer subscribes to commercial services that provide monthly NBSK pulp pricing data for Europe, the United States, and China. No published data is available for the Canadian market alone. Merwin Witness Statement, ¶ 157 n. 68.

<sup>128</sup> C-53, NBSK Pulp Pricing, RISI, Inc. and Pulp and Paper Products Council.

<sup>129</sup> C-55, Mercer International Inc., 2012 Form 10-K (15 February 2013) at 13, Source: RISI, Inc. (Resource Information Systems, Inc.) RISI is a leading information provider to the global forest products industry. As Mercer's Mr. Merwin explains, the RISI data reflect list prices, which do not reflect discounts. The actual prices received by producers thus are likely to be less than these values, but the graph accurately reflects price trends and the degree of price fluctuation. Merwin Witness Statement, ¶ 157 n. 68.



approximately US\$ 600 per ADMT in Europe to US\$ 870 per ADMT at the end of 2007. These price increases resulted from increased demand and the closure of several pulp mills, particularly in North America, which reduced NBSK capacity. Prices continued to rise to around US\$ 900 per ADMT in mid-2008.<sup>130</sup>

104. In the second half of 2008, list prices for NBSK pulp decreased markedly due to weak global economic conditions, falling in Europe from US\$ 900 per ADMT in the months of April-June 2008 to around US\$ 648 per ADMT at the end of the year, and US\$ 580 in March - April 2009. Such pulp price weakness continued into early 2009, though, commencing around May 2009, pulp markets began to strengthen which led to improved prices. Strong demand from China, capacity closures and historically low global inventories for bleached softwood kraft pulp helped support upward price momentum.<sup>131</sup>

105. During the second half of 2009, several price increases raised European list prices to US\$ 800 per ADMT by year-end. Prices continued to climb in 2010 and early 2011, peaking at over US\$ 1,000 in the second quarter of 2011. In 2013, reported list prices ranged between US\$ 825 and US\$ 905.<sup>132</sup>

*d. BC Mill Shutdowns*

106. Because several BC pulp mills fall within the lower cost-efficiency quartiles, the temporary idling and sometimes permanent shutdown of inefficient mills during periods of declining prices has been a historical feature of the BC industry. For example, Bowater Pulp and Paper Canada Inc. permanently closed its pulp mill in Gold River, BC in 1999, and Skeena

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<sup>130</sup> See C-55, Mercer International Inc., 2012 Form 10-K (15 February 2013) at 13-14.

<sup>131</sup> C-53, NBSK Pulp Pricing RISI, Inc. and Pulp and Paper Products Council.

<sup>132</sup> C-53, NBSK Pulp Pricing, RISI, Inc. and Pulp and Paper Products Council. See also C-57, Mercer International Inc., 2013 Form 10-K (21 February 2014) at 13-14.

Cellulose permanently closed its pulp mill in Prince Rupert, BC in 2001. Pope & Talbot shutdown its mills in Nanaimo and Mackenzie in May 2008, and sought bankruptcy protection.

[REDACTED]

[REDACTED] Howe Sound idled its kraft pulp mill (and its newsprint mill) for at least ten days in June 2009 due to poor market conditions.<sup>133</sup> Catalyst Paper indefinitely curtailed production at its Campbell River mill in 2004 and again in 2009, and closed it permanently in 2010. Catalyst also idled its Crofton mill from February 2009 to October 2009. Most recently, Domtar idled one line in the first quarter of 2013.

107. Since investing in the Celgar mill in 2005, Mercer has not idled production at the mill, other than for short-duration maintenance.<sup>134</sup>

108. In addition, low or non-existent profitability among some pulp mills in the BC industry has led to consolidation and the sale, closure, or reconfiguration of numerous BC pulp mills in recent years.<sup>135</sup> Pope & Talbot declared bankruptcy and was liquidated in 2008. Harmac Pacific purchased Pope & Talbot's Nanaimo mill, and restarted one production line in 2008 and another in 2009. Paper Excellence B.V., a Netherlands corporation controlled by the Asia-based Sinar Mas group, purchased the Pope & Talbot Mackenzie Mill in the spring of

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<sup>133</sup> See C-56, "Howe Sound Pulp and Paper to Reduce Production," GLOBALPAPERMONEY.ORG, (27 May 2009), available at <http://www.globalpapermoney.org/howe-sound-pulp-and-paper-to-reduce-production-cms-3652>.

<sup>134</sup> Merwin Witness Statement, ¶¶ 96–97.

<sup>135</sup> The 2007 PricewaterhouseCoopers Study reported that market pulp producers in BC in aggregate suffered net losses in 2001 (C\$-147 million), 2002 (C\$-174 million), 2003 (C\$-113 million), and 2005 (C\$-143 million). In 2004, the industry achieved aggregate annual net income of a mere C\$ 20 million. C-48, PWC 2007 Report at 10.

2010.<sup>136</sup> Paper Excellence also agreed to purchase Howe Sound's pulp mill in Port Mellon in July 2010 (in a transaction that closed on 1 October 2010), and on 26 March 2013, it agreed to purchase the Skookumchuck mill from Tembec (in a transaction that closed on 17 May 2013).<sup>137</sup>

109. Temporary and permanent mill shutdowns benefit the mills that remain open, not only by removing capacity from the market and thereby tightening supply, but also by reducing demand for woodchips in their regions, generally leading to lower input costs for other mills in the same chip-sourcing region.<sup>138</sup>

110. As kraft pulp mills with self-generation are able to realize additional revenue and profits from their sales of electricity, including profits from their arbitraging of below-load electricity, their idling/shutdown calculus changes. All other things remaining equal, the more electricity a mill can generate and sell, the more it can shift its shutdown point, permitting it to remain open when it otherwise would have closed temporarily. A mill will compare both its pulp revenue per ton and its electricity revenue per ton of pulp produced against its variable costs

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<sup>136</sup> See C-51, *Mackenzie*, PAPEREXCELLENCE.COM, <http://www.paperexcellence.com/mills/mackenzie/>.

<sup>137</sup> See C-58, "Tembec announces closing of the sale of its NBSK pulp mill in Skookumchuck, British Columbia," TEMBEC.COM (17 May 2013), available at <http://tembec.com/en/Media/Press-Releases/tembec-announces-closing-sale-its-nbsk-pulp-mill-skookumchuck-british-columbia>; C-59, "Tembec Reports Financial Results For Its Third Quarter Ended June 29, 2013," TEMBEC (1 August 2013) at 48; C-60, "Canfor sells Howe Sound pulp and paper to Indonesian firm," VANCOUVER SUN (16 July 2010), available at <http://workingforest.com/canfor-sells-howe-sound-pulp-and-paper-to-indonesian-firm/>; C-192, *Tembec closes on sale of its NBSK pulp mill in Skookumchuck, British Columbia, to Paper Excellence for C\$ 94.6M, including C\$ 25.5M in working capital, subject to closing working capital adjustment*, INDUSTRY INTELLIGENCE, INC., <http://www.industryintel.com>.

<sup>138</sup> Merwin Witness Statement, ¶ 99.

of production in evaluating whether to shut down, as the revenue from electricity sales functions exactly like a reduction to costs.<sup>139</sup>

111. Put another way, by regulating a pulp mill's access to embedded cost utility power, and thus the amount of below-load electricity a mill can sell at market prices when higher than embedded cost utility rates, the Province can directly affect a mill's cost curve and relative competitiveness. The Province can make a less competitive mill more competitive, and can even enable an idled mill to reopen, by permitting it to sell more electricity at market prices relative to its competitors. Conversely, it can render a more competitive mill less competitive (and more likely to shutdown when pulp prices decline), by restricting its ability to sell its self-generated electricity at market prices while purchasing embedded cost electricity.<sup>140</sup>

## **5. The Market for Celgar's Biomass-Based Green Energy**

112. The Celgar Mill effectively is a large scale bio-refinery that produces carbon-neutral, green electricity. It uses renewable biofuel — wood chips and other wood inputs — to produce electricity that also is carbon-neutral, due to the life cycle and carbon absorption role of the forest.<sup>141</sup>

### *a. The Period 1955-2000: The Absence of a Market*

113. The markets in which the Celgar Mill can sell its self-generated "green" electricity, and the market in which it purchases utility electricity, are complex and have changed over time. In somewhat simplified terms, during the decades in which most of the current kraft

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<sup>139</sup> Merwin Witness Statement, ¶ 99.

<sup>140</sup> Merwin Witness Statement, ¶¶ 156–57; Switlishoff Expert Statement, ¶ 46.

<sup>141</sup> Merwin Witness Statement, ¶ 138.

pulp mills in BC were built, 1955-1995, the Province had more than sufficient generation capacity to meet its electricity needs. As its generation resources consisted predominantly of older and thus lower cost hydroelectric plants, this meant that industrial customers could obtain power from their local utility relatively cheaply, around C\$ 0.02 - C\$ 0.04 per kilowatt hour (“kWh”).<sup>142</sup>

114. Moreover, the state of technology at the time would not have permitted pulp mills to produce very much electricity,<sup>143</sup> there was no significant market into which BC self-generators could sell their self-generated power, and there was no open access to transmission. Utilities in the Province could meet their needs from their own resources, and there was little demand in the neighboring regions of Alberta and the U.S. Pacific Northwest. These are the natural markets for Celgar’s electricity, along with California under certain conditions.

115. To sell electricity at the wholesale level, a power producer needs access to the transmission grid, and then it must pay for transmission service as well as what the industry refers to as “line loss.” Due to the resistance of the transmission lines, there is power loss as electricity moves from one point to another. The greater the distance, the greater the line loss. If a contractual sale involves transmission over a distance that will entail a 10 percent line loss, for example, then the supplier must actually generate 110 percent of the contractual amount in order

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<sup>142</sup> Range based on historical BC Hydro transmission service rates for TSR-level customers. By way of example, the blended rate for both the demand and energy charges in 1995 (under Rate Schedule 1821, which was the predecessor to RS1823) was C\$ 0.0320 per kW.h, comprised of a demand charge C\$ 4.411 per kVA and an energy charge of C\$ 0.02599 per kW.h. Switlishoff Expert Statement, ¶ 223.

<sup>143</sup> Merwin Witness Statement, ¶ 30.

to deliver that amount, in addition to paying for transmission service which also increases in cost with distance. There is thus a strong incentive to sell electricity locally when possible.<sup>144</sup>

116. Finally, in those decades, there was little concern regarding “climate change,” and no distinct market for green electricity. As a result of the absence of a market for independently-produced energy, the low prices for purchased electricity, there was little incentive for BC kraft pulp mills to invest in significant self-generation capacity, and poor prospects for an acceptable return on investment.<sup>145</sup>

b. The Period from 2000-2010: The Development of a Market

117. However, these markets all began to change by the beginning of the 21<sup>st</sup> century. Technology had been developed that enabled pulp mills to generate greater amounts of electricity.<sup>146</sup> The generation-load posture of the Province, concern over climate change and the demand for green energy, and the prices for electricity all changed, both as a result of the gradual economic development of the Province (and concomitant growth in electricity consumption) and as a result of certain external market shocks.

(i) The (Temporary) End of BC Hydro’s Surplus Generation

118. First, load growth in the Province outpaced BC Hydro’s investment in new generation plants.<sup>147</sup> BC Hydro went from a position of having excess generation capacity to having insufficient capacity to meet its peak load, particularly in low water years. Starting about 2002-03, BC Hydro needed to begin importing electricity in low water years to meet its peak

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<sup>144</sup> Switlishoff Expert Statement, ¶ 231.

<sup>145</sup> Switlishoff Expert Statement, ¶ 232.

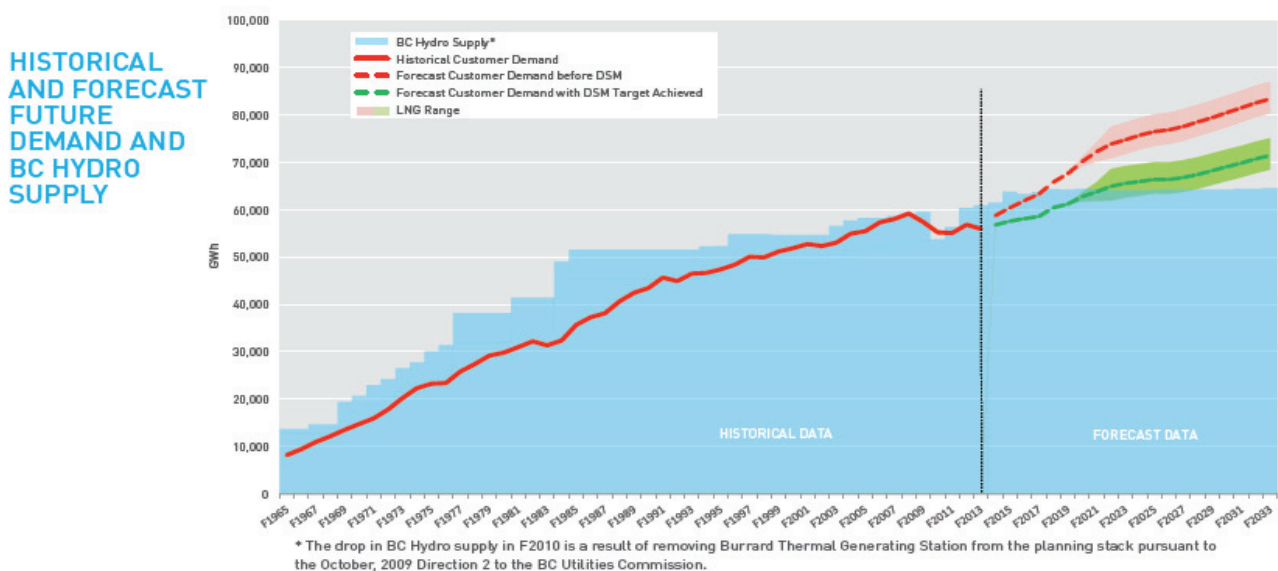
<sup>146</sup> Merwin Witness Statement, ¶ 30.

<sup>147</sup> For example, total BC power usage increased from 46,000 GWh in 1980 to 57,000 GWh in 2013. See C-61, *Energy in B.C.*, BC HYDRO.COM, <http://www.BC Hydro.com/energy-in-bc.html>.

load. By 2007, BC was importing up to 10 percent of its energy supply from outside the province.<sup>148</sup> In its June 2008 Long Term Acquisition Plan (“LTAP”), BC Hydro forecast an energy load/resource gap of -3,000 GWh/year in 2012, increasing to -5,700 GWh/year in 2014 and -19,800 GWh/year in 2026.<sup>149</sup> This meant BC Hydro would have to purchase increasing amounts of incremental electricity at market prices far higher than the costs for power derived from its own generation assets.

119. The following BC Hydro table illustrates BC Hydro’s gradual shift from a surplus generation position to a deficit position around FY2007, which corresponds mostly to 2006:

**Figure 7**  
**BC Hydro Electricity Supply and Demand Balance<sup>150</sup>**



<sup>148</sup> C-62, The BC Energy Plan: A Vision for Clean Energy Leadership (2007) available at [http://www.energyplan.gov.bc.ca/PDF/BC\\_Energy\\_Plan.pdf](http://www.energyplan.gov.bc.ca/PDF/BC_Energy_Plan.pdf) at 9.

<sup>149</sup> See C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009) at 24.

<sup>150</sup> Source: C-64, BC Hydro, Integrated Resource Plan: Meeting B.C.’s Future Electricity Needs (November 2013) at 6.

(ii) Market Deregulation in California Opens  
Markets for Power Producers in BC

120. Electricity deregulation in the U.S. state of California was a second important development. In 1996, California passed the Electric Utility Industry Restructuring Act. By March 1998, electric utilities had partially divested their generating stations, largely to independent power producers, and became responsible mainly for electricity distribution. The independent power producers then competed with generators outside California to sell electricity to the utilities on the newly-created California Power Exchange, essentially a day-ahead market. Wholesale prices then were deregulated in 2000, but retail prices were capped.<sup>151</sup>

121. California's huge market created opportunities for power producers and power traders in adjacent regions, including at times British Columbia, and deregulation in California affected market prices for electricity throughout the region, including the western United States and Canada.

122. This became readily apparent later in 2000-01, when power markets in the western United States, particularly in California, went haywire. For reasons variously attributed to faulty deregulation, market manipulation, shutdowns of pipelines, drought, and delays in the approval of new power plants, severe electricity shortages developed in California. The state experienced several large-scale blackouts, and from the second half of 1999 to the second half of 2000, wholesale electricity prices in the state increased by 500 percent.<sup>152</sup> For the first four months of 2001, prices averaged over US\$ 300/MWh, ten times what they were in 1998 and

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<sup>151</sup> See generally C-65, Paul L. Jaskow, *California's Electricity Crisis*,” (National Bureau of Economic Research, Working Paper 8442) (21 July 2001).

<sup>152</sup> C-65, Paul L. Jaskow, *California's Electricity Crisis*,” (National Bureau of Economic Research, Working Paper 8442) (21 July 2001) at 1.



1999.<sup>153</sup> Traders with access to electricity from other areas, and those producers, benefitted as they were able to sell power into the state at premium prices.

123. BC Hydro's Powerex subsidiary, for example, was a large beneficiary, which helped the Province maintain its freeze on BC Hydro's rates until April 2004. However, Powerex was accused of undeservedly profiting from market manipulation during the crisis, and in 2013 ultimately paid US\$ 750 million to settle a proceeding before the U.S. Federal Energy Regulatory Commission brought by the State of California and three California utilities seeking damages of US\$ 3.2 billion for the alleged wrongdoing.<sup>154</sup>

124. California's large investor-owned utilities did not fare as well as energy traders. Because of the caps on the retail price of electricity, utilities were not able to recover the huge costs they were incurring to purchase electricity on the California Power Exchange. The crisis pushed the state's largest utility, Pacific Gas & Electric Company, into bankruptcy.

125. The effects of this crisis rippled throughout the region, including into British Columbia. Generators and power traders had new opportunities to sell power into the United States at high prices. Traders with power from the Pacific Northwest could sell their power into California, and buy replacement power regionally, including from BC. Suddenly, there was an attractive market for self-generated power produced in BC that had not existed previously, with

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<sup>153</sup> C-65, Paul L. Jaskow, *California's Electricity Crisis*, (National Bureau of Economic Research, Working Paper 8442) (21 July 2001).

<sup>154</sup> The Settlement Agreement was filed with FERC for approval on 16 August 2013, and is available at C-66, Joint Offer of Settlement and Motion for Procedural Relief for Purposes of Disposition of the Settlement and for Expedited Comments and Expedited Action, *available at* [http://elibrary.ferc.gov/idmws/file\\_list.asp?accession\\_num=20130816-5026](http://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20130816-5026). *See also* C-67, "Powerex settlement reached," NEWSROOM.GOV.BC.CA (16 August 2013), *available at* <http://www.newsroom.gov.bc.ca/2013/08/powerex-settlement-reached.html>

prices much, much higher than the avoided costs of utility-supplied embedded cost power.<sup>155</sup>

While the crisis ultimately was resolved, its existence signaled to current and potential self-generators in BC that opportunities to sell their power existed at attractive prices.

126. The benchmark for this market is the Mid-Columbia hub (“Mid-C”). A hub is a notional trading location — a defined location at which electricity can be purchased or delivered. Mid-C refers to the area near the middle of the Columbia River, and in the middle of Washington State, in which there are located multiple hydroelectric generating stations, electrical substations, a high capacity 100-mile network of high voltage transmission lines and interconnections, and substantial electric load. This cluster provides a robust and liquid market hub for electricity purchases and sales.<sup>156</sup>

127. Mid-C prices are reported in authoritative energy market publications such as Platts and in the Wall Street Journal. There are a variety of “products” for which prices are reported, including firm and non-firm transactions, spot transactions, and short- and long-term contract prices. However, the spot market is the most robust and most frequently referenced.<sup>157</sup>

128. Mid-C provides one of the main electricity markets outside of British Columbia in which BC Hydro buys and sells electricity, and Mid-C spot prices provide a benchmark for wholesale electricity prices within British Columbia. For example, BC Hydro sells “excess”

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<sup>155</sup> See Switlishoff Expert Statement, ¶ 233.

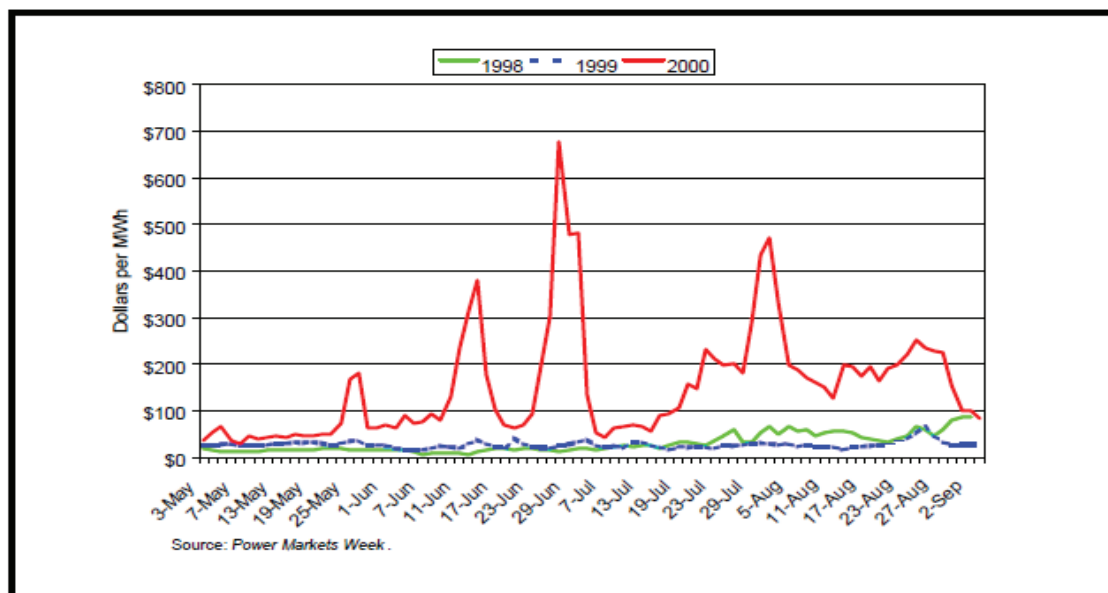
<sup>156</sup> Switlishoff Expert Statement, ¶ 234. The U.S. has many regional wholesale electricity markets. The Federal Energy Commission defines the U.S. Northwest Power Market as including all of Washington, Oregon, Idaho, and Utah, most of Nevada, Montana, and Wyoming, and the northern portion of California. See C-68, *FERC Electric Power Markets: Northwest*, FERC.GOV, available at <http://www.ferc.gov/market-oversight/mkt-electric/northwest.asp>. This region contains two hubs — the Mid-C and the California Oregon Border.

<sup>157</sup> Switlishoff Expert Statement, ¶ 235.

power to Powerex under a Transfer Price Agreement that guarantees BC Hydro the Mid-C price.<sup>158</sup> Power trading contracts for BC electricity producers frequently contain pricing terms tied to Mid-C prices.<sup>159</sup> As Mr. Switlishoff explains, the Mid-C price is an average price for daily transactions.<sup>160</sup>

129. The following chart illustrates prices at the Mid-C hub over the period 1998-2000, highlighting the relatively low and stable prices prior to the start of the California energy crisis in May 2000, and the pricing during the crisis, in US\$/MWh:

**Figure 8**  
**Mid-C Index Prices 1998-2000**  
**(US\$/MWh)**



<sup>158</sup> C-69, Anna Sopkina and G. Cornelis van Kooten, *Is BC a Net Power Importer or Exporter*, University of Victoria, available at <http://web.uvic.ca/~kooten/documents/BCgeneratingSystem.pdf>, at 14.

<sup>159</sup> C-122, Letter from Bev Van Ruyven, Vice President - Marketing and Sales, BC Hydro, to Russ Fulton and Al Loewen (12 April 2001) at 20.

<sup>160</sup> Switlishoff Expert Statement, ¶ 235.

130. According to a February 2001 BC Hydro analysis, performed in the midst of the California energy crisis, Mid-C prices for energy delivered for the balance of 2001 to the end of 2003 was approximately C\$ 285-C\$ 310/MWh.<sup>161</sup>

(iii) Self-Sufficiency, Climate Change, and the Demand for Biomass-Based Green Electricity

131. Third, and somewhat later, concern over climate change and related environmental issues, coupled with the Province's desire to regain energy self-sufficiency, led to the development of a distinct sub-market in BC for biomass-based green energy.<sup>162</sup>

132. On 27 February 2007, the Province released an energy plan entitled *The BC Energy Plan: A Vision for Clean Energy Leadership* (the "2007 Energy Plan").<sup>163</sup> Among other goals, the 2007 Energy Plan sought to ensure that the Province achieved electricity self-sufficiency by 2016, and that it maintained its competitive electricity rate advantage. As previously noted, BC was then importing up to 10 percent of its electricity supply, and BC Hydro had forecast that demand for electricity could grow by up to 45 percent over the next 20 years.<sup>164</sup>

133. The 2007 Energy Plan set ambitious conservation targets as well, with a goal of acquiring 50 percent of BC Hydro's incremental resource needs through conservation by 2020. Consistent with its clean energy objectives, the plan also established that clean or renewable electricity generation in BC would continue to account for at least 90 percent of total generation,

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<sup>161</sup> C-70, Regulatory Affairs, Briefing Note, BC Hydro's Obligation to Serve Rate Schedule 1821 Customers with Self-Generating Capability (Draft, 26 February 2001) at 2.

<sup>162</sup> Merwin Witness Statement, ¶ 138.

<sup>163</sup> C-62, *The BC Energy Plan: A Vision for Clean Energy Leadership* (2007) available at [http://www.energyplan.gov.bc.ca/PDF/BC\\_Energy\\_Plan.pdf](http://www.energyplan.gov.bc.ca/PDF/BC_Energy_Plan.pdf) ("2007 Energy Plan").

<sup>164</sup> C-62, 2007 Energy Plan at 9.

and required all new electricity generation projects in the province to have zero net greenhouse gas emissions.<sup>165</sup>

134. Significantly for the instant case, the plan in Policy Action No. 30 referenced a bioenergy strategy to increase biomass electricity generating capacity in the province.<sup>166</sup> (Bioenergy is derived from organic biomass sources, and includes energy generated by kraft pulp mills burning black liquor, because black liquor is derived from wood chips.) As the 2007 Energy Plan explained, biomass energy is considered carbon-neutral energy because the carbon dioxide released by the biomass when converted to energy is equivalent to the amount absorbed during its lifetime.<sup>167</sup>

135. The 2007 Energy Plan directed BC Hydro to issue an expression of interest, followed by a call for proposals, for electricity from sawmill residues, logging debris, and timber killed by the mountain pine beetle infesting British Columbia forests.<sup>168</sup> The 2007 Energy Plan also embraced small power as part of the solution, by establishing a “Standing Offer” program with a set purchase price for projects up to 10 MW.<sup>169</sup> The Province thus was compelling BC Hydro to purchase large amounts of bioenergy.

136. On 6 February 2008, implementing the Province’s bioenergy directive, BC Hydro issued a first call for bioenergy power proposals known as Bioenergy Power Call Phase I. “Eligible Projects” were limited to those using a fuel type specified as follows: “Forest-based biomass, including mill solid wood residues (hog fuel, sawdust, chips and/or chunks), pulp mill

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<sup>165</sup> C-62, 2007 Energy Plan at 12-13.

<sup>166</sup> C-62, 2007 Energy Plan at 18.

<sup>167</sup> C-62, 2007 Energy Plan at 22.

<sup>168</sup> C-62, 2007 Energy Plan at 39 (item 31).

<sup>169</sup> C-62, 2007 Energy Plan at 10.

residues (hog fuel and black liquor), roadside and landing residues, and biomass derived from standing timber, without access to new timber harvesting tenure.”<sup>170</sup> In addition, the entire output for an Eligible Project had to qualify as “clean energy” under MEM guidelines.<sup>171</sup> BC Hydro received some 20 project proposals in response, negotiated with the lowest cost bidders, and ultimately concluded deals for a total of 579 GWh of firm power annually, and 60 MW of dependable capacity, with four suppliers, including three kraft pulp mills.<sup>172</sup>

137. Celgar was one of the successful bidders, and negotiated an EPA with BC Hydro in 2008, which it signed on 27 January 2009. Celgar’s was the largest of the four contracts, accounting for 238 GWh/year of the total of 579 GWh/year.<sup>173</sup> The other pulp mills receiving EPAs were Domtar Pulp & Paper Products Inc. (Kamloops), and Canfor Pulp Limited Partnership (Prince George).

138. The simple average plant gate firm energy price offered by the four winners was C\$ 100/MWh, the average levelized price was C\$ 101/MWh, and the average adjusted levelized price was C\$ 112/MWh, which BC Hydro reported publicly on 19 February 2009.<sup>174</sup> These

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<sup>170</sup> See C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals, app. A (original RFP) (17 February 2009) at 6.

<sup>171</sup> C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals, app. A (original RFP) (17 February 2009) at 7.

<sup>172</sup> See C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009) at 2.

<sup>173</sup> C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009) at 14.

<sup>174</sup> C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009) at 15. The proposals received by BC Hydro varied in numerous ways, including term and proposed inflation adjustments. To make price comparisons possible, BC Hydro first computed a levelized price intended to adjust all proposals to 2008 dollars. In computing a levelized price, BC Hydro calculated the present value of its future costs, in 2008 dollars, applying a nominal discount rate of 8 percent and an assumed 2.1 percent annual inflation component. C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009) at 12. (The

[FOOTNOTE CONTINUED ON NEXT PAGE]

prices were significantly higher than the wholesale spot market price for electricity generally, but reflected a premium for long-term, biomass-based green energy, and included an imputed value for certain Environmental Attributes associated with the purchased energy. For example, for 2008, the average Mid-C spot price for day-ahead peak electricity was US\$ 65/MWh.<sup>175</sup>

139. Celgar's adjusted firm energy price was [REDACTED]

[REDACTED] 176

140. The Bioenergy Phase I process demonstrated the existence of a distinct sub-market for biomass-based electricity in the Province, and provided price discovery into the market price for that sub-market. Also, as BC Hydro noted in justifying before the BCUC the prices it agreed to pay, these prices were similar to the levelized plant gate prices of C\$ 100-C\$

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

difference between the Plant Gate Price and the Levelized Firm Energy Price varies for each of the successful bidders because the bids offered different built-in inflation adjustments.) The "adjusted levelized price" further adjusts the "levelized price" to account for any differences in product attributes and in project location relative to the Lower Mainland of BC. C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009) at 12. The latter includes estimated transmission losses. Generation resources located further from BC Hydro's major demand centers are treated as more costly because there are higher transmission losses involved in moving the energy to where it is needed.

<sup>175</sup> C-203, Northwest Electric Market: Annual Bilateral Prices, FERC.GOV (6 January 2013), available at <https://www.ferc.gov/market-oversight/mkt-electric/northwest.asp>. See also C-69, Anna Sopkina and G. Cornelis van Kooten, *Is BC a Net Power Importer or Exporter*, University of Victoria, available at <http://web.uvic.ca/~kooten/documents/BCgeneratingSystem.pdf>, at 14. Mid-C spot prices on the FERC website are presented in U.S. Dollars. The exchange rate in 2008 was approximately \$1 for every C\$ 1.07. C-215, *Average Exchange Rates*, OANDA.COM, available at <http://www.oanda.com/currency/average>.

<sup>176</sup> C-99, Justification Report: Tembec EPA Replacement for Incremental Energy Sales from Purcell Power Plant accompanying Letter from Joanna Sofield, Chief Regulatory Officer, BC Hydro, to Erica M. Hamilton, Commission Secretary, BCUC (28 October 2009) at 5 ("Tembec Justification Report").

103/MWh that a California utility, Southern California Edison, had agreed to pay under a May 2007 standing offer for biomass energy projects of 20 MW or less.<sup>177</sup>

141. On 11 April 2008, BC Hydro launched the Standing Offer Program (“SOP”). The SOP provided a continuing opportunity for new or incremental generation capacity, up to 10 MW (raised to 15 MW in 2011), to sell green power to BC Hydro at pre-determined prices, ranging from C\$ 70/MWh to C\$ 82/MWh, depending on where the generator was located and whether environmental attributes were included.<sup>178</sup> In 2011, pricing was changed to utilize a base price in 2010C\$, subject to annual adjustment tied to changes in the CPI. The Base Price varied from 2010C\$ 94.86/MWh in the Peace Region to C\$ 103.69/MWh in the Lower Mainland.<sup>179</sup> (Celgar is in the South Interior region, which has a base price of C\$ 98.98/MWh). In 2013, separate rates for certain high efficiency cogeneration facilities using natural gas as the fuel source were introduced, at levels about 20 percent lower than the base rates.

142. On 11 June 2008, BC Hydro launched its Clean Power Call to encourage the development of clean or renewable energy alternatives. The Clean Power Call Request for Proposals (“RFP”) targeted up to 5,000 GWh of clean or renewable energy per year from larger projects using proven technologies, such as hydro, wind, solar, and geothermal energy, among

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<sup>177</sup> C-99, Tembec Justification Report, at 29.

<sup>178</sup> C-92, BC Hydro Standing Offer Program - Section 45 Application accompanying Letter from Joanna Sofield, Chief Regulatory Officer, BC Hydro, to Erica M. Hamilton, Commission Secretary, BCUC (14 December 2007) at 5-6, table 5-4.

<sup>179</sup> C-72, BC Hydro, Standing Offer Program: Program Rules (Version 2.3, October 2013) at 8.



others.<sup>180</sup> BC Hydro paid an average adjusted firm energy price of [REDACTED] for electricity under this power call.<sup>181</sup>

143. In 2009, BC Hydro launched an initiative it termed its Integrated Power Offer (the “IPO”) for pulp and paper customers, piggybacking on the Canadian federal government’s Pulp & Paper Green Transformation Program (“PPGTP”), administered by Natural Resources Canada. The PPGTP program was available to and used by kraft pulp mills across Canada to finance green energy projects. It was adopted by Canada in June 2009 as a counter-subsidy to a 2005 U.S. government alternative fuels program that provided tax credits to companies that mixed biofuel with fossil fuels, intended to encourage the use of ethanol as an automobile fuel. A 2007 amendment enabled pulp and paper companies, who were already using black liquor as a biofuel, to qualify for the credit by mixing diesel in with their black liquor.<sup>182</sup> The U.S. program generated annual black liquor tax credits of roughly US\$ 6 billion per year, and severely distorted the market for pulp.<sup>183</sup>

144. The Canadian federal program helped to restore the competitive position of Canadian kraft pulp mills (which had been disadvantaged by the U.S. subsidies). It provided credits totaling C\$ 1 billion to 38 pulp and paper mills in Canada, for 98 projects, which all mills earned at a rate of C\$ 0.16 per liter of black liquor produced at their mills between 1 January and

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<sup>180</sup> C-72, BC Hydro, Standing Offer Program: Program Rules (Version 2.3, October 2013) at 8.

<sup>181</sup> C-73, BC Hydro, Briefing Note, Economic Impacts of BC Hydro’s Bioenergy Initiatives (Draft, 26 May 2011).

<sup>182</sup> See Gandossi Witness Statement, ¶ 51.

<sup>183</sup> See C-74, “The Black Liquor War: The U.S. and Canada duke it out over an alternative-fuel boondoggle,” WALL ST. J (30 June 2009), *available at* <http://online.wsj.com/article/SB124623488607866601.html>.

1 May 2009.<sup>184</sup> Funds went to 24 companies, ranging from C\$ 2.6 million for Meadow lake mill in Saskatchewan to C\$ 143 million for Domtar.<sup>185</sup> Celgar also received funding through the program, which it used to help finance the installation of its second turbine generator, in 2009.<sup>186</sup>

145. In order to encourage PPGTP beneficiaries to use their PPGTP funds in British Columbia, instead of in other provinces, BC Hydro developed the IPO. It provided an integrated approach for pulp and paper mills that invested PPGTP funds in clean energy projects in BC to obtain electricity purchase agreements with BC Hydro on a streamlined basis (and exempt from BCUC review), with prices based on those achieved in the Bioenergy Phase I tender, as well as umbrella agreements providing BC Hydro funding for load displacement or energy conservation projects.<sup>187</sup> For projects with at least five years of sustained energy savings, [REDACTED]

[REDACTED]

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<sup>184</sup> See C-75, *Pulp and Paper Green Transformation Program: Mission accomplished*, NRCAN.GC.CA, available at <http://www.nrcan.gc.ca/forests/federal-programs/13141>.

<sup>185</sup> C-175, *Canfor Nets \$122M in Green Transformation Dollars*, 250NEWS.COM (9 October 2009), available at [http://www.250news.com/blog/view/14252/1/canfor+nets+\\$122min+green+transformation++dollars?id=143&st=16301](http://www.250news.com/blog/view/14252/1/canfor+nets+$122min+green+transformation++dollars?id=143&st=16301).

<sup>186</sup> Merwin Witness Statement, ¶ 112.

<sup>187</sup> See C-76, *Pulp and Paper Energy Efficiency Workshop 2010*, BC Hydro Integrated Power Offer Powerpoint (6-7 April 2010); C-77, MOF, Issue Note, Issue: Pulp & Paper Self-Generation Capability in B.C. (5 May 2010); C-78, Email from Oswald Dias to Bill MacMillan (8 September 2009); C-79, BC Hydro's Energy Procurement Update (November 2011); C-80, *Integrated Power Offer for Pulp & Paper Customers: Customer Notification Script - Key Messages* (Draft, August 2009); C-81, BC Hydro, *Integrated Customer Solutions Strategy: Steering Committee Presentation* (8 July 2011) at 5.

██<sup>188</sup> BC Hydro launched the program around October 2009,<sup>189</sup> and it remained in place into 2012.

146. BC Hydro had eight customers receiving funds under the PPGTP, and it negotiated IPO EPAs with the Canfor, Cariboo, Catalyst, Domtar, Nanaimo Forest Products (formerly owned by Pope & Talbot), and Howe Sound pulp mills.<sup>190</sup>

147. BC Hydro initiated a Bioenergy Phase II power call with an RFP issued on 31 May 2010. It concluded its Bioenergy Phase II call in August 2011, awarding four electricity purchase contracts representing 754 GWh/year of firm energy. Unlike Bioenergy Phase I, these EPA's were exempt from BCUC review. The weighted-average levelized Adjusted Firm Energy Price for these deals was C\$ 115/MWh.<sup>191</sup>

c. *The Period 2010-Present: Market Price Deterioration*

148. In recent years, prices in wholesale energy markets in the region have deteriorated. Mid-C spot market prices have fallen steadily, as indicated in the chart below based on BC's April-March fiscal year:

**Figure 9**  
**Wholesale Electricity Pricing 2009-13<sup>192</sup>**

	<b>Mid-C Price</b>
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<sup>188</sup> E.g., C-82, BC Hydro IPO Letter of Intent to Tembec Inc. (Draft, 6 November 2009); C-83, BC Hydro IPO Letter of Intent to Domtar Pulp and Paper Products Inc. (Draft, 6 November 2009).

<sup>189</sup> See C-84, Email from Monique Stevenson to Gail McBride, *et al.* (9 October 2009).

<sup>190</sup> See C-85, BC Hydro's Energy Procurement Update (March 2012).

<sup>191</sup> See C-86, BC Hydro, Bioenergy Phase 2 Call Request for Proposals: Report on the RFP Process (10 February 2012) at 1.

<sup>192</sup> C-38, 2013 *Industrial Electricity Policy Review* at 10.

<b>Fiscal Year</b>	<b>Firm on Peak Annual Average US\$/MWh</b>
2009/10	US\$ 37.13
2010/11	US\$ 31.08
2011/12	US\$ 27.96
2012/13	US\$ 23.63

149. A recent BC Government report highlights these data as evidence of weak export markets for BC Hydro/Powerex, and attributes the depressed pricing conditions to low natural gas prices, an oversupply of subsidized wind energy, and the slow economic recovery following the 2008-09 recession, particularly in California.<sup>193</sup>

150. Within BC, BC Hydro shifted back into a surplus supply position around 2010, as Figure 7 above indicates. The Chart also indicates why. Demand dropped steeply as a result of the 2008-09 recession, and has been slow to recover. Moreover, BC Hydro's generation supply increased as a result of the various electricity purchase arrangements it entered into in 2009-2012 as a result of its Bioenergy Phase I Power Call, Bioenergy Phase II, the SOP, the Clean Energy Call, the IPO, and other EPAs it concluded pursuant to other competitive and non-competitive processes.

151. Demand for clean energy in BC also has declined as a result of policy change. The 2007 Energy Plan had required that BC Hydro be energy self sufficient by 2016 at critical water levels. Following a review, the Province in February 2012 modified the objective so as to

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<sup>193</sup> C-38, *2013 Industrial Electricity Policy Review* at 10.

rely on “average water” rather than “critical water” levels, thereby reducing the requirement for new clean energy supply.<sup>194</sup>

152. BC’s preference for bioenergy comes at a cost. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>195</sup> As noted above, the simple average levelized plant-gate price BC Hydro achieved in Bioenergy Phase I was C\$ 100/MWh. As noted, prices from that competitively-bid power call then served as a benchmark for BC Hydro in its subsequent bioenergy purchases. These bioenergy rates all were far higher than the embedded costs from BC Hydro’s own generating resources, and have had the effect of pushing up BC Hydro’s overall average costs.

153. As BC Hydro’s average embedded costs have increased, even as market prices for wholesale power have been falling, BC Hydro has been forced to raise rates. On 26 November 2013, BC Energy Minister Bill Bennett announced a front-loaded 28 percent across-the-board BC Hydro electricity rate hike over five years, with a 9 percent jump beginning 1 April 2014, and a further 6 percent increase on 1 April 2015.<sup>196</sup>

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<sup>194</sup> The average water requirement was adopted in February 2012 pursuant to the Electricity Self-Sufficiency Regulation as amended by BC Reg. 16/2012 and through amendments to Special Direction 10 to the BCUC, BC Regulation 245/2007 effected through Order in Council No. 35/2012 issued on 2 February 2012.

<sup>195</sup> C-88, BC Hydro, Information Note, Economic Impact of BC Hydro’s Bioenergy Initiatives (11 May 2011).

<sup>196</sup> See C-89, “BC Hydro rates to increase 28 per cent over 5 years,” CBC NEWS (26 November 2013), available at <http://www.cbc.ca/news/canada/british-columbia/bc-hydro-rates-to-increase-28-per-cent-over-5-years-1.2440437>.

### **III. THE POLICY ISSUE AND THE BC REGULATORY FRAMEWORK**

154. As in most jurisdictions, BC highly regulates its electric utilities, which operate as monopolies in their service territories. The regulatory issues in this case can properly be understood only against both the general regulatory framework applicable to electric utilities and the more specific (and less well-defined) policies the Province has adopted concerning industrial self-generators.

#### **A. The General BC Regulatory Framework**

##### **1. The Utilities Commission Act**

155. As noted above, the BCUC was created, and the current electricity utility regulatory framework established, by the UCA. Under the UCA, a “public utility” is defined as “a person . . . who owns or operates in British Columbia, equipment or facilities for (a) the production, generation, storage, transmission, sale, delivery, or provision of electricity, natural gas, steam or any other agent for the production of light, heat, cold or power to or for the public or a corporation for compensation . . . .”<sup>197</sup> One may not construct or operate a public utility plant or system without a certificate from the BCUC of public convenience and necessity.<sup>198</sup> The BCUC supervises public utilities, and has broad powers over public utilities to issue orders, make examinations and obtain information, set standards, set rates, approve the issuance of securities, and approve mergers and consolidations, among other powers.<sup>199</sup> As noted, its jurisdiction is province-wide.

156. Simply put, the Commission has authority to ensure utilities can and do provide safe and reliable service at fair and reasonable rates to all service area customers. These goals

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<sup>197</sup> C-20, UCA § 1.

<sup>198</sup> C-20, UCA § 45.

<sup>199</sup> C-20, UCA §§ 23-26 , 43, 50, 53, 58

have resulted in an economic and social arrangement dubbed the “regulatory compact,” which ensures that all customers have access to utility service at fair, reasonable, and non-discriminatory rates.<sup>200</sup> That is, a public utility has an opportunity to earn a fair and reasonable return on used and useful assets, and has an obligation to provide service to all eligible customers within its service area. This “obligation to serve” has been established by both common law and legislation.<sup>201</sup>

157. All rates, which include not only charges but also “a rule, practice, measurement, classification or contract of a public utility or corporation relating to a rate,” must be filed with and approved by the BCUC.<sup>202</sup> A public utility’s rates may not be unjust, unreasonable, unduly discriminatory, or unduly preferential.<sup>203</sup> A rate is unjust or unreasonable if it fails to provide a fair and reasonable return on the appraised value of the utility’s property, among other criteria.<sup>204</sup> Thus, BC public utilities charge rates that are based on their embedded costs of providing service, plus a reasonable return on invested capital, commonly referred to as “embedded cost rates.”

158. With respect to industrial self-generators, the UCA contains certain relevant exclusions and exemptions. Most significantly here, the UCA excludes from coverage as a “public utility” entities that produce electricity for their own use and not for resale.<sup>205</sup> The BC

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<sup>200</sup> See CA-27, *ATCO Gas & Pipelines Ltd. v. Alberta (Energy & Utilities Board)*, 1 S.C.R. 140, 2006 SCC 4.

<sup>201</sup> C-20, UCA §§ 38-39.

<sup>202</sup> C-20, UCA §§ 1 (definition of “rate”), 59, 61.

<sup>203</sup> C-20, UCA § 59.

<sup>204</sup> C-20, UCA § 59(5).

<sup>205</sup> C-20, UCA § 1.

Government retains the power to issue additional exemptions.<sup>206</sup> For example, on 6 June 2002, the BC MEM directed the BCUC to exempt from the requirements of the UCA persons not otherwise a public utility with respect to the production and sale of electricity to BC Hydro or Powerex.<sup>207</sup> The MEM also has granted specific exceptions for individual self-generators who have sought to sell power to other parties.<sup>208</sup>

159. In light of these exemptions, Celgar was exempt from obtaining a certificate of public convenience and necessity prior to constructing, improving, or operating its generation facilities. And its electricity sales to BC Hydro under the 2008 EPA are exempt from the requirements of the UCA.

160. The UCA as amended also provides for certain open access to transmission facilities (“Open Access”) for wholesale power transactions. Open Access means that a customer or supplier can use a utility’s transmission system to move their power, for a fee. Open Access is an electricity market reform the goal of which is to encourage the development of a competitive generation market, resulting in efficient resource allocation. If a person is unable to negotiate access with a public utility to or the terms and conditions for transmission service, then the BCUC may order the utility to provide service, and set the rates, terms, and conditions.<sup>209</sup>

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<sup>206</sup> C-20, UCA § 22(2).

<sup>207</sup> C-37, MEM, Minister’s Order No. M-22-0205 (6 June 2002) (exemption from Part 3 of the UCA).

<sup>208</sup> For example, as discussed below, Tolko was granted an exemption from provisions of the UCA when the Commission established its GBL in 2001, and the MEM granted the Catalyst pulp mill/Powell River an exemption with respect to certain sales of surplus power in Directive M-22-0101. C-170, Letter from Ray Aldeguer, Senior Vice-President Legal, Regulatory Affairs and General Counsel, BC Hydro, to Robert J. Pellatt, Commission Secretary, BCUC, att. 1 (30 January 2001) at 4-8.

<sup>209</sup> C-20, UCA § 70. BC implemented open access in the mid-1990s.



161. As relevant here, “Eligible Customers,” which generally include large industrial customers (including Celgar), wholesale customers, power marketers, and independent power producers, have Open Access to sell self-generated electricity on or through the FortisBC and BC Hydro systems.<sup>210</sup> Open Access thus affords Celgar the opportunity to sell its self-generated electricity not only to FortisBC (the utility to which it physically is connected), but also to wholesale buyers throughout the province, and to wholesale and other buyers in neighboring jurisdictions.

162. At the time Celgar was seeking to sell all of its self-generated electricity, around 2007-2008, it investigated the availability of transmission access, and concluded that long-term access was available.<sup>211</sup> Moreover, it made significant investment decisions based on that projected access. Indeed, at the time, and as noted above, BC Hydro was a net importer of electricity, and was projected to continue to be a net-importer over the mid-term to long-term. As Celgar’s need for transmission access ran counter to these flows, transmission should not have been an issue.

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<sup>210</sup> From 2003 until July 5, 2010, the transmission lines in BC Hydro’s service territory had been owned by a separate Crown corporation, the British Columbia Transmission Corporation (“BCTC”). The Province had separated the two to try to attain an independent transmission system, and to further the development of regional transmission organizations. When that did not occur, the Province re-integrated BCTC into BC Hydro, in the Clean Energy Act. *See* C-237, Clean Energy Act {SBC 2010}, c. 22, §§ 22 and 23

<sup>211</sup> Merwin Witness Statement, ¶¶ 49–50. To obtain such access, Celgar would have to file an application with the BCTC, and requested a specific amount of transmission access. Celgar never reached a point where it could determine such amount as its sales strategies were frustrated by G-48-09, and then rendered moot when Celgar entered into an EPA with BC Hydro. This would also have entailed a significant fee, and required a transmission study. *See* Merwin Witness Statement, ¶ 48, n. 24.

## 2. West Kootenay Access Principles

163. With the advent of Open Access, FortisBC's predecessor, WKP sought to establish the principles, terms, and conditions under which its Eligible Customers could choose to obtain some or all of their electricity supply from non-WKP resources. On 31 July 1998, WKP filed two separate applications to the BCUC relating to open access to its transmission system: (1) the Access Principles Application ("APA") and the Transmission Access Application ("TAA"). The TAA concerned the pricing, terms, and conditions for access to the transmission system. The APA related primarily to the treatment of generation assets in an open access environment, and ultimately covered issues such as WKP's obligations to serve existing and new customers, how to treat stranded costs and benefits caused by departing customers, and the provisions under which a departing customer could re-enter and be supplied by WKP.<sup>212</sup> It is relevant here, because, as the BCUC has held, the APA governs Celgar's full or partial reliance on its own self-generation to meet its load, and its desire to return to partial or full utility electricity service.<sup>213</sup>

164. The Commission subjected the APA to a negotiated settlement process, which resulted in a proposed settlement agreement in November 1998. The Commission accepted

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<sup>212</sup> See generally, C-91, BCUC, Order Number G-27-99 and Accompanying Decision (10 March 1999).

<sup>213</sup> See C-13, BCUC, Order Number G-188-11 (14 November 2011) at 3, ¶ 9 (directing FortisBC to file a rate for service to Celgar that reflects in part an amount of service "that customers are entitled to at embedded rates under the Re-entry provisions of the APA."). See also C-14, Decision G-188-11, at 34-40 (reviewing applicability of APA, concluding that "Celgar is entitled to *some* amount of FortisBC's non-PPA embedded cost power when selling power," and rejecting BC Hydro's argument that the Access Principles did not apply to self-generators.). Although FortisBC also has argued that self-generators should not be covered by the APA, the BCUC has never adopted that position.

comments on the proposed agreement, held a public hearing, and on 10 March 1999 issued an order accepting the APA.<sup>214</sup>

165. The APA reaffirms WKP's obligation to serve every customer. It must serve every customer "until that customer elects to leave the embedded cost power service" of WKP, and must serve customers desiring to have their load partially served by WKP. It also "retains the obligation to serve at embedded cost rates any new load entering its service territory, and additional load attributable to existing customers, and returning Eligible Customers . . . ." <sup>215</sup>

166. The APA as adopted contains certain Fair Treatment provisions. For example, Fair Treatment requires that, for customers who remain with utility supply, the exit, partial exit, or re-entry of an Eligible Customer should make them no worse off than if the Eligible Customer had always remained with the utility. It also requires that WKP's return on equity does not change as a result of the exit, partial exit, or re-entry of a customer. <sup>216</sup>

167. An Eligible Customer that has left utility service is entitled to return to WKP electricity service at any time. Returning customers are to receive rates "reflecting the embedded cost of service" within the lesser of two years from the date they provide their notice to return to WKP, or the period in which WKP can adjust its supply portfolio to serve the customer consistent with Fair Treatment.<sup>217</sup>

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<sup>214</sup> C-91, BCUC, Order Number G-27-99 and Accompanying Decision (10 March 1999).

<sup>215</sup> C-91, BCUC, Order Number G-27-99 and Accompanying Decision, app. A (10 March 1999) at 2.

<sup>216</sup> C-91, BCUC, Order Number G-27-99 and Accompanying Decision, app. A (10 March 1999) at 1.

<sup>217</sup> C-91, BCUC, Order Number G-27-99 and Accompanying Decision, app. A (10 March 1999) at 4.

### 3. The Heritage Contract

168. The BC Government's 22 November 2002 Energy Plan, entitled Energy for Our Future: a Plan for BC ("2002 Energy Plan"), directed the BCUC to make recommendations to secure the benefits attributable to the existing low-cost generation of BC Hydro for all ratepayers by means of a legislated Heritage Contract. This directive followed the expiration of the rate freeze that the Government had effectively imposed on BC Hydro from 1994 to 2004, and BC Hydro's return to rate regulation by the BCUC. The Commission issued its report containing a proposed Heritage Contract in October 2003,<sup>218</sup> and the Heritage Contract was adopted shortly thereafter through the BC Hydro Public Power Legacy and Heritage Contract Act of 2003.<sup>219</sup>

169. The Heritage Contract had an initial term of 10 years. In simplified terms, it identified BC Hydro's preexisting generation resources as Heritage Resources, delineated 49,000 GWh of energy as the annual amount of Heritage Energy derived from those Resources (based on average water conditions), and obligated BC Hydro to deliver all Heritage Energy to BC Hydro ratepayers priced on an original cost model. This model follows common regulatory treatment in which the utility provides services to ratepayers and in return collects an approved "revenue requirement" comprised of the costs of providing those services, including a return to the shareholder.

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<sup>218</sup> See C-93, BCUC, Report and Recommendation, *In the Matter of British Columbia Hydro and Power Authority and an Inquiry into a Heritage Contract for British Columbia Hydro and Power Authority's Existing Generation Resources and Regarding Stepped Rates and Transmission Access: Report and Recommendations* (17 October 2003) at I, 2.

<sup>219</sup> C-204, BC Hydro Public Power Legacy and Heritage Contract Act of 2003 {SBC 2003}, c. 86.

#### 4. Stepped Rates

170. As demand for electricity in BC increased, and the cost of new electricity supply became more expensive than power from existing resources, BC Hydro's traditional rate structure (under which a single rate was charged for all electricity within a given class of service) resulted in rates that did not provide appropriate price incentives for conservation. For example, if an industrial customer were paying C\$ 25/MWh for electricity, its decisions regarding investment in energy savings technologies and practices would be based on that rate.<sup>220</sup> On the other hand, BC Hydro's marginal costs for obtaining new supply were significantly higher. For purposes of comparison, if such costs were C\$ 100/MWh, then it was in the Province's overall interest to create conservation incentives at that level, rather than at the lower average embedded cost rate.

171. BC's 2002 Energy Plan required the BCUC to develop recommendations for a "stepped rate" for BC Hydro's large industrial customers (*i.e.*, its TSR-level customers), who accounted for about one-third of Hydro's domestic electricity load. The idea was to charge such customers a two-tiered step rate, whereby they would receive a lower rate for most of the electricity they purchased, but a higher rate for a portion, creating a greater incentive to reduce consumption of the higher-priced power.

172. The two-tiered step rate was intended to be revenue neutral yet encourage conservation by aligning customer price signals with actual marginal costs. It was implemented for BC Hydro's TSR-level industrial customers, including pulp mills, beginning in April 2006, reflecting the Government and BC Hydro's 2007 fiscal year. (Stepped rates have not yet been

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<sup>220</sup> This was the actual cost threshold estimated by BC Hydro to exist prior to the introduction of stepped rates. See C-94, Letter from Jennifer Champion, Policy Analyst, Ministry of Energy, Mines and Petroleum Resources, to Lester Dyck (Draft).

implemented in FortisBC's service territory, although the regulatory process to do so currently is underway.)

173. Each TSR-level BC Hydro customer is designated an individual Customer Baseline Load ("CBL") based on historical electricity purchases and reset annually if purchases shift by more than 10 percent or if a customer makes certain Demand Side Management ("DSM") investments.<sup>221</sup> Customers are charged a lower Tier 1 rate up to 90 percent of CBL and a higher Tier 2 rate above 90 percent of CBL. The Tier 2 rate is set to signal BC Hydro's long-run cost of new energy supply, while the Tier 1 rate is calculated residually to maintain revenue neutrality for the customer class.<sup>222</sup> The Tier 2 rate is set as a signal of BC Hydro's cost of acquiring energy through long-term contracts. Initially the Tier 2 price was C\$ 54.00/MWh. In F2009, it was raised to C\$ 73.60/MWh to reflect the weighted-average levelized price of energy contracts resulting from BC Hydro's FY2006 Call for Tender. The Tier 1 rate was C\$ 24.77/MWh in F2007 and F2008 and was lowered to C\$ 23.32/MWh in F2009, as a result of the increase in the Tier 2 rate.<sup>223</sup>

174. The new rate structure was intended to be revenue neutral, because the average of the Tier 1 and Tier 2 rates equaled the old single rate. It was intended to encourage conservation by creating a price incentive to reduce consumption that was more closely aligned with BC

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<sup>221</sup> A utility has two options when faced with increasing demand for its electricity. It may either construct new power plants or otherwise contract for additional supply, or it may seek to reduce demand. Demand Side Management involves reducing electricity use through activities or programs that promote electric energy efficiency or conservation, or more efficient management of electric energy loads (so as to reduce peak loads). Switliff Expert Statement, ¶ 21.

<sup>222</sup> See C-95, BCUC, Report to Government on the BC Hydro Transmission Service Rate Program (31 December 2009) at i.

<sup>223</sup> C-95, BCUC, Report to Government on the BC Hydro Transmission Service Rate Program (31 December 2009) at 2.

Hydro's marginal costs of new supply. As the BCUC recently put it, "The intent of the stepped RS 1823 is to elicit a customer demand response to the Tier 2 price signal, whereby the customer is encouraged to invest in energy conservation, energy efficiency and self-generation to reduce or displace load. Customer actions that reduce or displace the customer's load in turn reduce the load BC Hydro is required to serve."<sup>224</sup>

175. The switch to Stepped Rates is relevant to the issues presented here because it changed a key parameter affecting the economics of self-generation — the price incentive to industrial self-generation. For the Tier 2 tranche of power a self-generator purchased for its industrial operations, the benefit of generating for load displacement purposes increased, thereby increasing the economic incentive for self-generation.<sup>225</sup> For example, in BC Hydro's service territory, the pre-stepped rate industrial rate under RS 1823 was C\$ 27.25/MWh. Under stepped rates, as noted above, the Tier 2 rate was initially C\$ 54.00 MWh, later increased to C\$ 73.60/MWh.

#### **B. The Policy Issue**

176. The existence of industrial users of electricity with self-generation assets, like Celgar and other kraft pulp mills in BC, presents a regulatory issue for the Province because, as explained above, the market value of the electricity self-generators produce generally has been higher in recent years than the cost of purchasing electricity at embedded costs from their local utility. BC does not permit a utility customer to purchase, at a low, embedded cost price, more electricity than it needs to serve its load, and resell that excess utility electricity into the market at

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<sup>224</sup> C-168, BCUC, Order Number G-19-14 and Accompanying Decision (17 February 2014) at 7.

<sup>225</sup> See Merwin Witness Statement, ¶142.

a higher, market value, and such “true arbitrage” is not at issue in this case.<sup>226</sup> Celgar has never proposed or engaged in such transactions.

177. The regulatory issue instead is the extent to which the Province permits an industrial self-generator to sell its self-produced electricity at market prices while at the same time purchasing electricity at lower, embedded cost rates from its local utility to meet the electricity load of its own plant. The issue affects not only revenues and costs for the self-generator and its electric utility, but also affects other ratepayers.

178. There are several competing interests involved. From the perspective of the investor in self-generation, it would like to maximize the return on its investment in generation assets. If it had not invested in self-generation assets, it would be entitled to full utility electricity service at embedded cost rates for its industrial operations. The self-generator’s viewpoint typically is that it should not be afforded *reduced* access to embedded cost electricity simply because it has invested in power generation assets, and that others should not benefit from its investment.

179. If the self-generator is permitted to utilize its self-generated electricity as it sees fit, either to sell at market prices, while purchasing utility electricity at embedded cost rates to meet its industrial load, or to meet load, depending upon market conditions, then it can maximize its return on investment. On the other hand, if the Province forces the self-generator to use some or all of its self-generated electricity to meet its industrial load (*i.e.*, to self-supply), then whenever the market price for such energy is higher than the avoided cost of embedded cost

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<sup>226</sup> The BCUC has recognized that “true arbitrage in fact can only occur where a customer purchases more energy than is required to serve its load at any moment in time. It is only at that moment when energy purchased will necessarily be used for the purpose of resale and not for the purpose of servicing load.” C-21, *Kelowna Decision*, at 22.



utility electricity, the Province is appropriating some or all of the benefit of the self-generator's investment for other ratepayers. Simply put, by requiring such load displacement, the Province reduces the quantity of incremental purchases BC Hydro must make (*i.e.*, purchases over and above its own generation) to meet the needs of its customers, thereby lowering its average electricity cost and thus the costs it passes on to all ratepayers.<sup>227</sup>

180. For these reasons, other ratepayers typically would prefer that self-generators be required to use their generation assets first to meet their own industrial loads. These other ratepayers pay lower rates than they otherwise would as a result. However, this benefit comes to them at no cost. They benefit from someone else's investment without having made any investment of their own (assuming BC Hydro, and thus its ratepayers, have not contributed part of the cost of the self-generator's investment). Of course, if BC Hydro has contributed to that investment, then its ratepayers ultimately do pick up those costs, and they have contributed to the self-generator's investment in generation assets.

181. The Province has an interest in ensuring that sufficient generation resources exist in the Province, including utility generation, industrial self-generation, and generation by independent power producers, in relation to the Province's overall electric load. As noted in the 2007 Energy Plan, the Province also has an interest in conservation, and in reducing greenhouse gas emissions by using green energy sources. It also has an interest in accumulating potentially valuable Environmental Attributes. The Province maximizes investment in beneficial green energy and cogeneration to the extent it allows investors to realize the full return possible on

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<sup>227</sup> Similarly, if BC Hydro is in a surplus position, self-generator load displacement enables BC Hydro to maximize its own export opportunities.

their investments. To the extent it imposes restrictions, it risks underinvestment in industrial self-generation of clean energy.

182. The Province also has a general interest in maintaining low utility rates, both for economic competitiveness reasons, as noted in the 2007 Energy Plan, and for political reasons, as BC Hydro is a state-owned and controlled utility.

183. The Province may also have other interests at stake in particular cases, including an interest in keeping a particular mill open, or allowing one to reopen, particularly in remote areas where the mill dominates employment and the local economy.

184. The policy question is how to balance these competing interests. The Province could by law require all industrial self-generators to use their generating assets first to meet their own load, and thus permit them to sell only their excess electricity, net-of-load, to the market. As noted above, this is referred to as a net-of-load standard. From a policy perspective, such a regime at first glance preserves the “free” benefits other ratepayers are receiving from self-generation, while constraining the revenue-earning opportunity of the self-generator. Assuming market prices are higher than the embedded cost price charged by the utility, such a regime reduces the total load the utility must supply, and thereby avoids the incrementally higher costs associated with generating or purchasing additional electricity at the margin. (Depending on whether the utility is able to pass along those incremental costs and increase its profits, the utility itself also could be benefitted or harmed.) However, by reducing the returns to investment in generation, such a policy would generally act as a disincentive to further investment in generation and a sub-optimum level of self-generation.

185. Alternatively, the Province could by law permit all industrial self-generators to obtain all the electricity needed to run their mills at embedded cost rates from their local utility,

while selling their self-generated electricity. The province of Quebec, Canada, in fact has adopted such a practice, subject to the self-generator meeting Quebec Hydro procurement requirements. Such a policy maximizes revenues for the self-generators, and creates the maximum incentive for investment in self-generation. However, the costs to the utilities of obtaining the incremental replacement power could be high. This would push up electricity rates for all ratepayers, as those incremental purchases at higher prices get rolled into the utility's embedded costs, and deny to these other ratepayers any continuing benefit from the self-generator's investment in self-generation.

186. As detailed below, BC has adopted an unsatisfactory and unreasonable middle course, one that bars Celgar from accessing embedded cost electricity while selling self-generated electricity, but permits other NBSK pulp mills to do so, through the discriminatory application of different regulatory standards and/or the exercise of discretion by BC Hydro to favor others over Celgar. NAFTA does not require the Province to adopt any particular policy course. Nonetheless, NAFTA does require BC to afford Celgar non-discriminatory, fair, and equitable regulatory treatment in the implementation of that policy choice. This it has failed to do.

### **C. The BC Regulatory Framework for Industrial Self-Generators**

187. Notwithstanding the significant and growing amount of industrial self-generation capacity in the Province, the significant investments involved, and the importance in particular of biomass-based self-generation to the province and the self-generators selling such electricity, the Province has no statute or regulations governing the ability of a self-generator to obtain utility electricity at embedded cost rates while selling self-generated electricity. Indeed, there is no legally binding rule of any sort applicable Province-wide.

188. Instead of comprehensively addressing the issue, the Province has instead opted for an *ad hoc* approach, wherein the BCUC has articulated a general but ill-defined principle applicable by its express terms only to BC Hydro and its customers, and largely vested BC Hydro with enormous discretion in its implementation without substantive oversight.

**1. The 1989 Howe Sound Generation Agreement**

189. The issue first arose in 2000–01 at the instigation of Howe Sound Pulp and Paper (“Howe Sound”), which owned and operated an NBSK pulp mill, a mechanical pulp mill, and a newsprint mill in Port Mellon, British Columbia. At all relevant times, Howe Sound was owned 50 percent by a Canadian corporation and 50 percent by a non-U.S., foreign corporation.<sup>228</sup>

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<sup>228</sup> At all relevant times, the mill was either jointly owned by Canfor Corporation (a Canadian corporation) and Oji Paper Co. Ltd. of Japan, or by a Netherlands corporation, although it appears that the company’s structure has changed over time.



Oji Paper remained a partner until 2010, as indicated by the press releases when HSPPLP agreed in July 2010 to sell the mill to Paper Excellence B.V., a Netherlands corporation, in a transaction that closed on October 1, 2010. *E.g.*, C-100, “Howe Sound Pulp & Paper sold to Paper Excellence,” PULP-PAPERWORLD.COM, available at <http://www.pulp-paperworld.com/press-releases/item/759-pap.html>; C-101, “Update 1- Paper Excellence buys struggling Howe Sound mill”,

[FOOTNOTE CONTINUED ON NEXT PAGE]

190. Howe Sound's NBSK mill was an older mill, originally built around 1908, but one of the first BC NBSK mills to add significant electricity generation capacity by installing new generators and renovating their existing plant. Although the location also included a mechanical pulp mill and a newsprint mill, the cogeneration equipment all was added at the kraft mill,<sup>229</sup> presumably to take advantage of the cogeneration synergies noted above. In 1990–92, Howe Sound added both a [REDACTED] MW extraction back pressure turbine and a [REDACTED] MW double extraction condensing turbine generator, as well as a new recovery boiler and high pressure hog fuel fired power boiler, to its kraft pulp mill.<sup>230</sup> The expected practical generation given steam constraints was [REDACTED] MW,<sup>231</sup> or roughly [REDACTED] GWh/year. Previously, Howe Sound had generation capacity of only [REDACTED] MW, and average generation of [REDACTED] MW in 1988 and 1989,<sup>232</sup> exemplifying the low investment BC pulp mills typically had made in self-generation until that time.

191. Howe Sound had agreed to add its new generating capacity only after negotiating a 1989 Generation Agreement with BC Hydro, in which BC Hydro provided substantial support for the new generation project in the form of full interest-free financing in the amount of at least [REDACTED]

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

REUTERS.COM (15 July 2010),

<http://www.reuters.com/article/2010/07/15/canfor-hovesound-idUSN1523678520100715>.

<sup>229</sup> C-102, HSPP, A.F.E. - H.S.P.P. 88-17: Co-Generation - Revision 1 (December 1990) at 24. (showing all the new power generation capability at the kraft mill.)

<sup>230</sup> C-103, 1989 Generation Agreement, at app. A and § 4.06; C-102, HSPP, A.F.E. - H.S.P.P. 88-17: Co-Generation - Revision 1 (December 1990) at 1.

<sup>231</sup> C-102, HSPP, A.F.E. - H.S.P.P. 88-17: Co-Generation - Revision 1 (December 1990) at 24.

<sup>232</sup> C-102, HSPP, A.F.E. - H.S.P.P. 88-17: Co-Generation - Revision 1 (December 1990) at 24.

[REDACTED]

[REDACTED] <sup>233</sup>

192. BC Hydro later valued the consideration it provided in the Generation Agreement [REDACTED] <sup>234</sup> BC Hydro paid this consideration to Howe Sound, and, in exchange, avoided the costs of having to generate or purchase power to meet that portion of Howe Sound's load that Howe Sound itself had agreed to self-supply. Howe Sound received interest-free financing, and avoided, through self-supply, costs for the power it would otherwise have had to purchase from BC Hydro. Both parties received something of value.<sup>235</sup> BC Hydro agreed to help to pay for the new generators in exchange for Howe Sound providing load displacement services to BC Hydro.

193. It was expected that the mill's generators would become operational in [REDACTED] and [REDACTED], and that the mill would burn black liquor, natural gas, and/or hog fuel to

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<sup>233</sup> See C-103, 1989 Generation Agreement at §§ 3.02, 3.03, 4.06, 5.01. A June 2009 Howe Sound document summarizing the transaction states that the loan amount was [REDACTED]. C-25, Letter from HSPP to BC Hydro (16 June 2009).

<sup>234</sup> C-97, BC Hydro, Briefing Note, HSPP Generation Agreement (Draft, 3 January 2003) at 1. See also C-105, BC Hydro, Briefing Note, HSPP Generation Agreement Termination (Draft, 16 February 2010); Switlishoff Expert Statement, ¶ 107.

<sup>235</sup> As Mr. Switlishoff explains, "The principle at work was that by absorbing the value of the interest component of the interest free loan, BC Hydro was avoiding incurring a larger cost by having to procure an additional [REDACTED] GWh of electricity per year for [REDACTED] years (Howe Sound's load displacement obligation in the 1989 Generation Agreement) at a higher price than it would be able to sell that electricity to Howe Sound, which BC Hydro was obligated to do at the embedded cost, or average cost of all resources. The value that accrued to BC Hydro's ratepayers from the 1989 Generation Agreement was the difference between the foregone interest and the amount BC Hydro would have lost in the procurement of the additional [REDACTED] GWh and subsequent re-sale to Howe Sound. BC Hydro had earlier valued the amount it would lose on the procurement and subsequent re-sale of a smaller amount of electricity, [REDACTED] GWh, at [REDACTED]." Switlishoff Expert Statement, ¶ 108.

generate electricity in the amounts contemplated.<sup>236</sup> (The mill's black liquor resources would not have been sufficient to power the turbines at their projected practical capacity.)

194. If Howe Sound failed to achieve its annual generation requirement of [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

195. Howe Sound thus agreed contractually not to sell any of its self-generated electricity and to use it all to meet its own load, but only in exchange for the loan from BC Hydro (and other payments at the same rate for energy produced above the agreement's requirements).

196. To Mercer's knowledge, the Generation Agreement was BC Hydro's first energy deal with a self-generating pulp mill in BC. Beginning a pattern that continues to this day, BC Hydro kept the terms of the Generation Agreement confidential, and, when BC Hydro presented the Generation Agreement to the BCUC for approval, it filed the Agreement with the Commission as a confidential document. Notably, in an early internal rough draft of the submission letter, prepared by one of its policy analysts, BC Hydro stated that [REDACTED]

[REDACTED]

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<sup>236</sup> [REDACTED]  
C-103, 1989 Generation Agreement, at App. A.

<sup>237</sup> See C-103, 1989 Generation Agreement §§ 7.01–7.08.

[REDACTED]<sup>238</sup> BC Hydro thus has long understood that keeping its energy agreements confidential helps it to treat its counterparties unequally.

**2. The 1997 Skookumchuck EPA**

197. BC Hydro’s second energy deal involving a pulp mill with self-generation capability was signed on September 5, 1997, and concerned the NBSK pulp mill in Skookumchuck, BC, then owned by Crestbrook Forest Industries (“Crestbrook”), and successively owned by Tembec and now Paper Excellence. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

<sup>241</sup>

<sup>238</sup> C-106, Internal BC Hydro email (8 December 1989).

<sup>239</sup> See Switlishoff Expert Statement, ¶ 26.

<sup>240</sup> The 1994 Request for Proposals (“RFP”) was designed to be consistent with the BC Government’s October 1992 Policy Statement on independent Power Supply to BC Hydro, which called for provincial electricity requirements to be met at the lowest social cost taking environmental and other impacts as well as financial cost into consideration. As a guideline, in its RFP, BC Hydro indicated that new resources offered at a social cost in excess of 3.8 cents per kilowatt-hour, levelized over time using an 8 percent discount rate, would probably not be competitive. See C-205, Report of the Independent Power Producers Review Panel (27 August 1996) at 2.

<sup>241</sup> C-107, Electricity Purchase Agreement Between Purcell Power Corp. and BC Hydro (5 September 1997) (“1997 Tembec EPA”).



198. [REDACTED]

[REDACTED] In 1999, Tembec Industries Inc., a large integrated forest products company, purchased the Skookumchuck pulp mill, and, around 2001, implemented the Purcell EPA on its own, although with a different generation configuration.<sup>242</sup> In 2001, Tembec Industries Inc. mothballed the pre-existing 15 MW generator and installed a 43.5 MW (54 MVA) nameplate capacity turbine generator.<sup>243</sup> It also installed a hog fuel boiler, spending a total of [REDACTED] to install the new generator and boiler.<sup>244</sup>

<sup>242</sup> [REDACTED]

<sup>243</sup> *E.g.*, C-111, BC Hydro Bioenergy Call for Power (Phase I): Seller's Plant Description (7 May 2008) at 2. For this reason, in its internal documents, BC Hydro sometimes refers to the 1997 EPA as the 2001 EPA.

<sup>244</sup> *See* C-112, Tembec Skookumchuck CBL/GBL Analysis (6 April 2009); C-113, Email from Chris Lague, Project Engineer and Energy Coordinator, Tembec, to Matt Steele (10 March 2009). As Mr. Switlishoff explains, Tembec installed a much larger extraction turbine than Purcell had contemplated, and mothballed the existing generator rather than continue its use. It made sense for Tembec to do so to take advantage, as operator of the pulp mill, of the greater heat synergies, which synergies would not have provided any advantage to Purcell. Switlishoff Expert Statement, ¶ 144.

199. Unlike the Howe Sound Generation Agreement, the 1997 Tembec EPA contained no GBL or other contractual load displacement obligation.<sup>245</sup> BC Hydro instead agreed to buy the first 10.8 MW of energy generated at an average price (adjusted for seasonal variation) of C\$

[REDACTED]

[REDACTED]

200. Tembec also was allowed, but not required, to sell up to 3.2 MW of certain additional non-firm, metered energy crossing on to BC Hydro's system, but the location of the meter meant that energy would cross the meter only after the mill first met its own electric load. This meant that BC Hydro had not agreed to buy any non-firm energy until the mill first supplied 10.8 MW of firm energy to BC Hydro, and, second, supplied its own load in full.<sup>247</sup>

201. BC Hydro thus expressly permitted Tembec to engage in arbitrage, and purchase below-load energy from BC Hydro to enable it to make energy sales to BC Hydro. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>248</sup> Without consideration of the mill's historical generation patterns, BC Hydro agreed that Tembec could sell the first 10.8 MW of its self-generated electricity to BC Hydro [REDACTED] and simultaneously buy

<sup>245</sup> Switlishoff Expert Statement, ¶ 148.

<sup>246</sup> C-112, Tembec Skookumchuck CBL/GBL Analysis (6 April 2009) (average prices as computed by BC Hydro). [REDACTED]

[REDACTED] C-107, 1997 Tembec EPA, ¶ 11.1 and app. 1. *See also* Switlishoff Expert Statement, ¶ 145.

<sup>247</sup> *See* Switlishoff Expert Statement, ¶¶ 146-47.

<sup>248</sup> C-34, Email from Lester Dyck to Leon Cender, Judy Baum, and Matt Steele (15 September 2009).

10.8 MW of electricity from BC Hydro to power its pulp mill, at embedded cost RS 1821 rates, then around C\$ 25.99/MWh.

202. [REDACTED]

203. Although the EPA did not contractually obligate Tembec to provide load displacement services — to use any of its self-generated electricity to meet its own load — from BC Hydro’s perspective it nonetheless effectively functioned as a load displacement agreement (“LDA”) in terms of electricity flows and BC Hydro’s supply obligation. [REDACTED]

[REDACTED]<sup>250</sup> In other words, the first 10.8 MW of power physically generated at the mill, in reality, would travel from the mill’s generator to meet the mill’s own load, and BC Hydro would take delivery on its grid of energy produced by the mill only after the mill had met its own load.<sup>251</sup>

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<sup>249</sup> C-116, Inter-office Memorandum from David G. Keir to Lester Dyck, Frank Lin, Sylvia von Minder, and CBL Governance Team re: Tembec Skookumchuck Pulp Operations - CBL/GBL/EPA Analysis (8 April 2009); C-112, Tembec Skookumchuck CBL/GBL Analysis (6 April 2009).

<sup>250</sup> C-112, Tembec Skookumchuck CBL/GBL Analysis (6 April 2009). *See also* Switlishoff Expert Statement, ¶ 147.

<sup>251</sup> It bears noting that, in the world of electrical power contracts, physical power flows and contractual power flows frequently differ. Physical power flows are governed by the laws of physics, and electrons will flow along the path of least resistance. Purchasers and sellers of electricity, on the other hand, arrange their transactions contractually, considering the contractual path the electrons would need to flow as if no one else was using the system. Thus, it is neither surprising nor unusual that BC Hydro agreed to pay Tembec for 10.8 MWs of electricity that

[FOOTNOTE CONTINUED ON NEXT PAGE]

### 3. BCUC Order G-38-01

204. When natural gas prices rose sharply toward the end of 2000, as noted above, it became uneconomical for Howe Sound to burn natural gas to generate electricity for purposes of meeting its load requirements under its Generation Agreement with BC Hydro, and Howe Sound ceased doing so. (As noted above, in this time frame, Celgar also ceased burning natural gas for the same reasons.) Howe Sound's electricity production dropped as a result (as did Celgar's). Nevertheless, due to deregulation in California, Howe Sound recognized that it would be economical to generate additional electricity if it could sell such energy outside of BC, at market prices, which began to skyrocket with the California Energy Crisis. Howe Sound thus approached BC Hydro, desiring to use its economically idle generation capacity to make energy sales.

205. On 23 February 2001, BC Hydro filed a letter with the BCUC seeking to initiate a proceeding for purposes of determining the extent of its obligation to serve industrial customers like Howe Sound who wished to take their self-generation output to market.<sup>252</sup> It is noteworthy that BC Hydro framed the issue as involving its obligation to serve, *i.e.*, its obligation to continue to provide embedded cost utility electricity to a customer that was selling its self-generated electricity. That proceeding resulted in BCUC Order G-38-01, and is referred to as the G-38-01 proceeding.

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

effectively would never flow on to BC Hydro's transmission system, because it all would be consumed by Tembec's pulp mill.

<sup>252</sup> As described by the BCUC in the order resulting from that proceeding, C-5, BCUC, Order Number G-38-01 and Accompanying Commission Staff Report (5 April 2001), ¶ B ("Order G-38-01").

206. On 27 February 2001, Howe Sound filed a letter with the Commission in the G-38-01 proceeding, describing its generation circumstances and economically “idle” capacity. It stated that it had total generation capacity of approximately 65 MW, but that it could generate only about 35 MW without using natural gas. (Presumably, 35 MW could be generated using black liquor and wood waste.) Due to high natural gas prices, Howe Sound asserted that it would generate only 35 MW in the foreseeable future. It wrote that “{t}he remaining 30 megawatts is capacity which is only economic to operate if the output can be sold in the US market or to Powerex at market-related prices.”<sup>253</sup>

207. Howe Sound requested the Commission “to not only permit sales of incremental power, but to facilitate them.”<sup>254</sup> Howe Sound did not mention that the 30 MW of power it wanted to sell was power it already was obligated under its 1989 Generation Agreement with BC Hydro to use to meet its own load.

208. On 28 February 2001, BC Hydro responded. BC Hydro expressed concern about the potential “harm” to other ratepayers if such sales resulted in increased takes of RS 1821<sup>255</sup> electricity by Howe Sound, the incremental costs of which would be spread across all of BC Hydro’s ratepayers.<sup>256</sup>

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<sup>253</sup> C-118, Letter from Brian Wallace, Bull, Housser & Tupper, to Robert Pellatt, BCUC (27 February 2001) at 2.

<sup>254</sup> C-118, Letter from Brian Wallace, Bull, Housser & Tupper, to Robert Pellatt, BCUC (27 February 2001) at 3. *See also* C-119, BCUC, Order Number G-27-01 (28 February 2001) (summarizing the filings do date and establishing a public workshop on the issues raised).

<sup>255</sup> This rate schedule provided for firm energy service to TSR-level customers, and was the predecessor to the current RS 1823.

<sup>256</sup> C-157, Letter from Ray Aldeguer, Senior Vice-President Legal Regulatory Affairs and General Counsel, BC Hydro, to Robert J. Pellatt, Commission Secretary, BCUC (28 February 2001).

209. BC Hydro also noted “substantial fairness issues that would arise between self-generators if Howe Sound’s request were granted.”<sup>257</sup> It noted that a customer that had shut down its generation already (to the detriment of other customers in cases where the self-generator had increased its purchases of RS 1821 energy) would benefit from market based pricing for their idle output. On the other hand, “self-generators that have continued to {generate and} supply themselves despite rising costs (and opportunity costs) of doing so — and, therefore, have benefited ratepayers as well as contributed to generally economic benefit in British Columbia — will be constrained to receiving RS 1821 value for the output of their self-generation.”<sup>258</sup>

210. BC Hydro further noted that, “{i}n essence, then, Howe Sound’s proposal takes similar assets, and differentiates their value based on whether the asset is idle or operating at a particular point in time (presumably today). Paradoxically, the proposal then offers more favourable treatment to those operators who have acted (or may act) in the manner least favourable to BC Hydro and its ratepayers. Such a situation sends the wrong signal to self-generating customers, and encourages these customers to cease generating as soon as the units become uneconomic relative to RS 1821.”<sup>259</sup>

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<sup>257</sup> C-157, Letter from Ray Aldeguer, Senior Vice-President Legal Regulatory Affairs and General Counsel, BC Hydro, to Robert J. Pellatt, Commission Secretary, BCUC (28 February 2001) at 1.

<sup>258</sup> C-157, Letter from Ray Aldeguer, Senior Vice-President Legal Regulatory Affairs and General Counsel, BC Hydro, to Robert J. Pellatt, Commission Secretary, BCUC (28 February 2001) at 1-2.

<sup>259</sup> C-157, Letter from Ray Aldeguer, Senior Vice-President Legal Regulatory Affairs and General Counsel, BC Hydro, to Robert J. Pellatt, Commission Secretary, BCUC (28 February 2001) at 2.

211. Finally, BC Hydro noted that Howe Sound’s filing had been silent on its Generation Agreement with BC Hydro, which agreement provided, that “in return for BC Hydro, and therefore other ratepayers, financing Howe Sound’s generators without interest, Howe Sound would generate a minimum amount of energy annually for use in its mill.”<sup>260</sup> BC Hydro stated further: “BC Hydro suggests that, in light of the Generation Agreement, it is inappropriate for Howe Sound in particular to seek market opportunities for its idle generation when it is contractually obligated to be using that generation now to meet its own energy needs.”<sup>261</sup>

212. On 19 March 2001, the Commission held a public workshop on the issues raised, and invited public comments.

213. [REDACTED]

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<sup>260</sup> C-157, Letter from Ray Aldeguer, Senior Vice-President Legal Regulatory Affairs and General Counsel, BC Hydro, to Robert J. Pellatt, Commission Secretary, BCUC (28 February 2001) at 2 (emphasis added).

<sup>261</sup> C-157, Letter from Ray Aldeguer, Senior Vice-President Legal Regulatory Affairs and General Counsel, BC Hydro, to Robert J. Pellatt, Commission Secretary, BCUC (28 February 2001) at 2.

<sup>262</sup> C-119, BCUC, Order Number G-27-01 (28 February 2001) at 5. (The briefing note is marked “draft #2”, and it is unclear from the document to whom it was distributed. Counsel for Mercer could not locate any final version in the documents produced by Canada.)

[REDACTED]

[REDACTED]<sup>263</sup>

214. The Commission then estimated the impact on BC Hydro. Under what it regarded to be the more likely scenario considering transmission system constraints and customer financial issues, the Commission forecast an annual negative financial impact of [REDACTED] [REDACTED]<sup>264</sup> (A much later analysis by BC Hydro, dated 24 June 2009, pegged the cost for supplying all [REDACTED] of its own customers self-generation at [REDACTED] depending on the assumed purchase cost for replacement power.<sup>265</sup> If BC Hydro were required to provide the incremental energy to serve all self-generators in the province, BC Hydro estimated the total cost at [REDACTED]<sup>266</sup>

215. Of course, these estimates serve equally as a measure of the value of the benefits self-generators were providing to BC Hydro and its ratepayers. If the self-generators had not invested in generation assets, BC Hydro and its ratepayers would already have been incurring the costs noted in the analysis.

216. On 26 March 2001, Howe Sound wrote to the Commission advising that it had reached an agreement in principle with BC Hydro with respect to the sale of power from its idle generation, and that it was no longer requesting the Commission to take any action.<sup>267</sup>

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<sup>263</sup> C-119, BCUC, Order Number G-27-01 (28 February 2001) at 5.

<sup>264</sup> C-119, BCUC, Order Number G-27-01 (28 February 2001) at 7.

<sup>265</sup> C-121, BC Hydro, Briefing Note, Customer Self Generation (24 June 2009).

<sup>266</sup> C-121, BC Hydro, Briefing Note, Customer Self Generation (24 June 2009).

<sup>267</sup> C-166, Letter from R. Brian Wallace, Bull, Housser & Tupper, to Robert Pellat, Commission Secretary, BCUC (26 March 2001).



217. The Commission issued a two-page Order G-38-01 on 5 April 2001, accompanied by a five-page Commission Staff Report summarizing the comments that had been filed.<sup>268</sup> The Commission provided no reasons accompanying its decision, as it would have been required to do if the proceeding had remained contested. The Commission ruled as follows:

*The Commission directs B.C. Hydro to allow Rate Schedule 1821 customers with idle self-generation capability to sell excess self-generated electricity, provided the self-generating customers do not arbitrage between embedded cost utility service and market prices. This means that B.C. Hydro is not required to supply any increased embedded cost of service to a RS 1821 customer selling its self-generation output to market. The Commission recognizes that considerable debate may ensue over whether a self-generator has met this principle, but the Commission expects B.C. 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. In instances where the parties cannot agree on an appropriate baseline, an affidavit may be required from the self-generator that it will not adjust its consumption of electricity under Rate Schedule 1821 to take advantage of market sales of its self-generation.*<sup>269</sup>

218. Order G-38-01 thus adopts a “historical usage” standard for regulating self-generator access to embedded cost utility electricity.<sup>270</sup> Access (and arbitrage) is permitted up to the “customer baseline” historical level of usage, but self-generators are denied *increased* access to embedded cost electricity. The Commission ordered this “program” to be established until 31 March 2002, or as subsequently extended if conditions warrant.<sup>271</sup>

219. BC Hydro implemented the program by adopting the term “generator baseline” or “GBL” in place of the BCUC’s “customer baseline,” computing GBLs for its self-generating

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<sup>268</sup> C-5, Order G-38-01.

<sup>269</sup> C-5, Order G-38-01, ¶ 1 (emphasis added).

<sup>270</sup> See Switliff Expert Statement, ¶ 47.

<sup>271</sup> C-5, Order G-38-01, ¶ 2.

customers when they sought to sell power, and inserting GBL provisions in its (and Powerex's) power contracts with self-generators.<sup>272</sup>

220. [REDACTED]

[REDACTED]

221. [REDACTED]

[REDACTED]

<sup>273</sup>

222. As the Commission itself later would observe, Order G-38-01 also treated self-generators differently than all other existing and future industrial customers, who remained free to invest in industrial plants and create new load or add to existing load, regardless of the rate impact on other BC Hydro customers. The BCUC noted “that there are currently a large number of opportunities for economic development in the Province, many of which involve very large projects, the supply of power to which will undoubtedly raise rates, at least to some extent, for all

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<sup>272</sup> Switlishoff Expert Statement, ¶ 49.

<sup>273</sup> C-158, MEM, Briefing Note for Decision, British Columbia's Self Generator Policy (Draft, 10 May 2007).

electricity customers of whatever utility supplies the increased energy. In this context, self-generators would appear to be treated less favourably than other potential customers.”<sup>274</sup>

223. The BCUC’s self-generator policy, provided in the form of a legal directive to BC Hydro, had several notable elements. *First*, Order G-38-01 did not restrict in any way any self-generator’s ability to sell electricity it generated *above* its own load. Indeed, it permitted sales of such surplus energy, and directed BC Hydro to facilitate them. The Order only imposed limitations on a self-generator’s access to embedded cost utility electricity while selling its self-generated electricity — its *below-load* generation. Because a self-generator does not need to purchase any electricity to replace electricity generated in excess of its load, Order G-38-01 did not restrict electricity sales in excess of load.

224. *Second*, with respect to sales of electricity generated below the self-generator’s own load, Order G-38-01 preserved the *status quo*. It held self-generators to their existing purchases of embedded cost utility electricity, and only restricted increased purchases to facilitate sales of self-generated electricity. But self-generators were free to sell electricity from then-idle capacity, or from new or incremental production. Arbitrage — the buying of embedded cost utility electricity while selling self-generated electricity — was permitted to the extent it did not involve *increased* purchases by the customer from BC Hydro.

225. Indeed, the BCUC would later explicitly characterize its Order G-38-01, and its restriction on increased arbitrage, as “in fact the preservation of the *status quo*, such that BC Hydro’s obligation to serve was limited to the load served at a particular time and self-generators were required to continue to serve that portion of their own load which they had served in the

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<sup>274</sup> C-21, *Kelowna Decision*, at 22.

past.”<sup>275</sup> It also would state that “{t}he concept of preserving the *status quo* for the utility necessarily involves a temporal element.”<sup>276</sup>

226. *Third*, the BCUC implemented its preservation of the *status quo* without regard to whether BC Hydro or the Province had contracted for a mill’s baseline “historical” level of generation used to serve load. As noted, several self-generators including Howe Sound had received valuable consideration from BC Hydro to install their generation capability, and in return they committed contractually to use some or all of that generation to meet their own load. Others such as Celgar had received no such consideration, and had made no load displacement commitments whatsoever, contractual or otherwise. This distinction mattered not. The Province would simply take from Celgar the load displacement service it had paid others to provide.

227. *Fourth*, the purpose and essence of a GBL is to define the limits of the utility’s obligation to serve a self-generating customer at embedded cost rates. The GBL defines the amount of electricity a self-generator must self-supply, and because it must self-supply that amount, it is denied access to embedded cost utility electricity to meet that portion of its load while it is generating. The GBL also defines the amount of electricity a self-generator is entitled to buy on a regular, firm basis, at embedded cost rates (which amount, as previously noted, is equal to its load minus its GBL).

228. For example, a GBL of 45 MW per hour means that the self-generating customer must generate and self-supply 45 MW of electricity per hour to meet its own load. In any hour in which it generates more than that amount, it may sell the excess and draw power from BC Hydro above its GBL, at embedded cost rates, to meet its load. Thus, if the customer’s load is 60 MW,

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<sup>275</sup> C-21, *Kelowna Decision*, at 7.

<sup>276</sup> C-21, *Kelowna Decision*, at 18.

and it generates 55 MW, it may purchase not more than 15 MW from BC Hydro at embedded rates to meet its load (the difference between its load and its GBL), and also simultaneously sell 10 MW of electricity at market prices (the difference between its generation and its GBL). A GBL may be expressed hourly (MW per hour as in the above example), seasonally (typically expressed in GWh per three-month season), or annually (in GWh per year).

229. The BCUC's GBL policy (and its historical usage standard) does not impose any direct restriction on a self-generator's ability *to sell* its self-generated electricity, but as a practical matter it imposes such a restriction indirectly. Provided transmission access is available, and the UCA is complied with (or a waiver obtained), a self-generator legally is free to sell all its self-generated energy. However, as a practical matter, doing so would prevent it from operating its industrial plant, including continuing to generate electricity, unless it can purchase firm electricity to meet that load.

230. *Fifth*, the Order did not constitute any legally binding rule governing self-generators province-wide. Order G-38-01 by its terms only provides direction to BC Hydro, and thus is binding only upon BC Hydro. The Commission was silent on the standards and procedures that would apply to self-generators who were not customers of BC Hydro, thereby creating uncertainty for self-generators served by other utilities, including Celgar.

231. *Sixth*, the Commission did not define "idle" or "excess" self-generation, or new or incremental generation, or how to distinguish such from historical generation. It did not identify the "historical" baseline time frame that was to be used in computing the GBL, or its duration. It did not identify any other factors that could be considered in determining the appropriate GBL. It left the details to be resolved by negotiation between BC Hydro and its self-generation customers, thereby conferring *enormous* discretion upon BC Hydro. But one aspect was clear —

BC Hydro had been directed not to allow a self-generator *increased* access to BC Hydro embedded cost electricity to facilitate the self-generator's sales of its self-generated electricity.

232. *Seventh*, a GBL is necessary for, and affects only (1) industrial customers with self-generation, that (2) are selling electricity. Independent power producers — non-utilities that only generate power — are not affected by GBLs because they do not require power to run any industrial operation. Likewise industrial customers without self-generation are not affected by GBLs, as they have full access to embedded cost utility power to run their plants and factories. GBLs are applicable only to companies that produce at least two products — electricity and an industrial product that requires electricity to produce. They also apply only to self-generators selling electricity; those that elect to use their self-generated power to self-supply are not impacted.

**4. Howe Sound's April 2001 Consent Agreement with BC Hydro and its Enabling Agreement with Powerex**

233. One week after the Commission issued Order G-38-01, on 12 April 2001, Howe Sound and BC Hydro filed their already-negotiated one-year Consent Agreement. It permitted Howe Sound to sell to Powerex all electricity generated in any hour in excess of a GBL of [REDACTED] MW, except when the mill is purchasing standby power from BC Hydro under RS 1880.<sup>277</sup>

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<sup>277</sup> C-122, Letter from Bev Van Ruyven, Vice President - Marketing and Sales, BC Hydro, to Russ Fulton and Al Loewen (12 April 2001). [REDACTED]

[FOOTNOTE CONTINUED ON NEXT PAGE]

234. Counsel for Mercer could identify no document produced to it by Canada indicating the basis on which the GBL of [REDACTED] was determined.<sup>278</sup>

235. As explained above, an hourly GBL of [REDACTED] MW meant that Howe Sound was required to use its first [REDACTED] MW of self-generated electricity to meet its own industrial electric load (as also still required under the 1989 Generation Agreement, which remained in force), but that it could sell any electricity generated in excess of [REDACTED] MW (notwithstanding the requirement in the Generation Agreement that Howe Sound use such power as well to meet its load). As long as it was using its first [REDACTED] MW of self-generated electricity for load displacement purposes in a given hour, Howe Sound could purchase whatever additional firm electricity it needed from BC Hydro, under RS 1821, at embedded cost rates.

236. BC Hydro thus permitted Howe Sound to buy and sell electricity simultaneously, for the first time, and while it was generating below load. (Sales in excess of load were never an issue, as Howe Sound could not generate at levels anywhere near the amount of electricity needed for its own load, which, including the kraft mill, the mechanical pulp mill, and the newsprint mill,<sup>279</sup> [REDACTED]<sup>280</sup>

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

<sup>278</sup> See also Switlishoff Expert Statement, ¶¶ 119–20 (noting that Mr. Switlishoff too could find no evidence supporting the selection of a [REDACTED] MW GBL, and that it thus appears to have been assigned arbitrarily).

<sup>279</sup> For GBL purposes, BC Hydro has always considered the combined load of the three plants, and never considered the kraft or other mills individually.

<sup>280</sup> See C-129, Letter from Pierre Lamarche, Manager, HSPP, to Lester Dyck, BC Hydro (23 February 2006). There are 8,760 hours in a year, so a plant requiring 1 MW of electricity to operate will consume 8,760 MWh of electricity per year if it operates year-round and has no outages or shutdowns.

237. Howe Sound also executed an agreement with Powerex [REDACTED]  
[REDACTED]  
Powerex, a wholly-owned subsidiary of BC Hydro, was to pay for such power [REDACTED]  
[REDACTED]  
[REDACTED] Thus, the maximum  
payment Howe Sound could receive was [REDACTED] Because the [REDACTED]  
reflects the benchmark value of export sales, Powerex was to receive a large share of the value of  
Howe Sound's sales of electricity.<sup>281</sup> Put another way, BC Hydro had a direct and significant  
financial interest in Howe Sound's energy sales, and in the GBL it negotiated with Howe Sound.  
The lower the GBL, the higher the trading profits its Powerex subsidiary could realize, and the  
more RS 1821 energy BC Hydro could sell to Howe Sound.

238. Notably, none of these agreements terminated the 1989 Generation Agreement,  
which remained in full force. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

239. Reflecting BC Hydro's consistent practice, Howe Sound's GBL, the basis on  
which it was computed, the Consent Agreement, and the Powerex Power Purchase Agreement all  
were kept confidential. Accordingly, the Howe Sound GBL provided no guidance to any other  
self-generator as to how a GBL based on historical usage would or should be set.

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<sup>281</sup> [REDACTED]  
[REDACTED] Switlishoff Expert Statement, ¶  
116 n. 23.



## 5. BCUC Order G-113-01 Regarding Tolko

240. The Commission provided some guidance later in 2001, in BCUC Order No. G-113-01, in a proceeding involving an application by Riverside Forest Products, now known as Tolko Industries Ltd. (collectively “Tolko”) asking the Commission to set a GBL for it.

241. Tolko operated a sawmill and a plywood plant in Kelowna, BC. It met its electricity requirements in part through self-generation from a hog fuel fired generator, and in part from power purchases from the City of Kelowna, a municipal utility in turn supplied by FortisBC (then known as WKP).<sup>282</sup>

242. On May 29, 2001, Tolko applied to the BCUC for an exemption from provisions of the UCA to enable it to sell “Incremental Power,” which it defined as all electricity generated above 2 MW each hour, without being considered a public utility. This was a baseline (GBL) within the meaning of Order G-38-01, for Tolko’s mill load was around 5 MW,<sup>283</sup> and it was seeking to maintain its access to embedded cost power from the City of Kelowna to meet its load in excess of the 2 MW per hour GBL, while it would sell the remainder of its self-generated energy.

243. The G-113-01 proceeding was a public proceeding, and the evidence submitted by Tolko, including load data, self-generation data, and electricity purchase data, is available publicly. This evidence established that 2 MW was not Tolko’s then-current generation level. Indeed, its average monthly generation level in 2000 — the year preceding its application to the Commission — was 4.7 MWh, and its average monthly generation in the period January-April

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<sup>282</sup> See C-21, *Kelowna Decision*, at 8.

<sup>283</sup> C-206, Tolko Industries Ltd (Tolko) Responses to BCUC Information Request No. 1 (3 June 2011) at 4.

2001 was even higher.<sup>284</sup> Tolko had been using all such generation to meet its own load.

Tolko's application likewise was not based on its average generation to meet load over 1998-1999, which level was 3.045 MWh.<sup>285</sup>

244. Instead, Tolko had argued for a historical usage GBL, based alternatively, on its 1997 generation level (1.97 MWh) or its 1996–99 four-year average (2.32 MWh).<sup>286</sup> Tolko contended that the baseline should be computed based on periods *before* it began negotiating with Powerex and WKP to sell its surplus power in 1998. It sought to define as “Incremental Power” all additional electricity it could generate as a result of the installation of a 10 MW steam turbine completed in April 2000, and other investments to improve generation it had made in years before it filed its application with the BCUC.<sup>287</sup>

245. Tolko's electric utility, the City of Kelowna, did not oppose Tolko's application.<sup>288</sup>

246. On 25 October 2001, in Order G-113-01, as approved by the Lieutenant Governor in Council (to grant the necessary exemptions from the UCA), the Commission granted Tolko's

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<sup>284</sup> C-207, Agreement Between Riverside Forest Products Limited and City of Kelowna (22 August 2001), Schedule C at 7.

<sup>285</sup> C-207, Agreement Between Riverside Forest Products Limited and City of Kelowna (22 August 2001), Schedule B at 6.

<sup>286</sup> C-208, Information Response of Riverside Forest Products Limited to British Columbia Utilities Commission Staff Information Request No. 2 (22 August 2001) at 4–5; *see also* C-207, Agreement Between Riverside Forest Products Limited and City of Kelowna (22 August 2001), Schedule A at 6.

<sup>287</sup> C-210, Tolko Industries Ltd. - Response to June 17, 2013 Celgar Information Request No. 1 FortisBC Inc. Purchase of Kelowna Utility Assets - Phase 2 (2 July 2013) at 2-3.

<sup>288</sup> C-211, Submission on behalf of Tolko Industries Ltd., *In the Matter by Tolko Industries Ltd. - Kelowna Division for Reaffirmation of its Ability to Sell Power Generation in Excess of the First 2MW of Generation in each hour as per Order G-113-01* (10 June 2011) at 6.

application.<sup>289</sup> The Commission found that “the exclusion of the first 2 MW of generation each hour from the definition of Incremental Power and the relatively constant production level associated with the generators will protect WKP and its customers from arbitrage with respect to the initial 2 MW or other impacts.”<sup>290</sup>

247. The Commission’s treatment of Tolko indicated the following:

- a. The principles underlying Order G-38-01 were not necessarily limited to BC Hydro or its service territory. Nonetheless, whereas Order G-38-01 directed BC Hydro to negotiate GBLs with its customers, the BCUC provided no clear direction on the standards or procedures that would govern self-generators that were not customers of BC Hydro, whether they were required to obtain a GBL, and how they were to obtain a GBL. This created uncertainty for self-generators served by other utilities, including Celgar.
- b. There was no requirement for self-generators who were not customers of BC Hydro to go to BC Hydro to negotiate a GBL.
- c. Generation improvements made prior to the issuance of Order G-38-01 in 2001, and indeed in the 1-3 years before a GBL was sought, could be treated as “new” or “incremental” generation, rather than “historical” generation used to meet load, for purposes of establishing a GBL, even if such generation actually had been used to meet load during those 1-3 years.

#### **6. BCUC Order G-17-02 Extending the GBL Program**

248. By the 2 March 2002 expiration date of Order G-38-01, BC Hydro reported to the BCUC that little experience had been gained with the GBL program.<sup>291</sup> Indeed, by then BC Hydro appears to have negotiated only a single GBL, with Howe Sound. By Order G-17-02, issued on 14 March 2002, the Commission ordered that the conditions established in Order G-

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<sup>289</sup> C-130, BCUC, Order Number G-113-01 (25 October 2001).

<sup>290</sup> C-130, BCUC, Order Number G-113-01 (25 October 2001).

<sup>291</sup> See C-21, *Kelowna Decision*, at 7.

38-01 were to “remain in effect until the Commission determines that future circumstances no longer justify the existence of such a program.”<sup>292</sup>

249. Order G-17-02 reflected the last BCUC pronouncement on self-generation and generator baselines until the 2009 rulings at issue in the instant dispute.

**7. BC Hydro’s Policies, Procedures, and Methodologies for the Establishment of a GBL**

250. Through its delegation of authority in Order G-38-01, and subsequent inaction, the BCUC essentially left it to BC Hydro’s wide discretion to determine GBLs for its customers, including whether and how to establish the GBL policies and procedures BC Hydro would use.

*a. The Absence of Any Written Policies, Procedures, or Methodologies*

251. Claimant requested that Canada provide all documents concerning GBL policies and procedures.<sup>293</sup> Claimant’s counsel and its power contracts, electricity market, and regulatory expert, Mr. Swiltishoff, then searched through all documents Canada provided, seeking to locate any written policies, procedures, or guidelines drafted or implemented by BC Hydro to govern its role in setting GBLs. We could find no such documents in effect from the 2001–2010 timeframe at issue in this dispute.<sup>294</sup> No GBL policies, procedures, or guidelines appear to have been

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<sup>292</sup> C-131, BCUC, Order Number G-17-02 (14 March 2002) at 2.

<sup>293</sup> See, e.g., Claimant’s 4 February 2013 Request for Production of Documents, Request No. 1.1.2.

<sup>294</sup> See also Swiltishoff Expert Statement, ¶ 53.

written until 2012, and even then BC Hydro drafted guidelines only after the BCUC requested that it provide its GBL guidelines.<sup>295</sup>

252. Throughout the time BC Hydro was establishing GBLs for self-generators like Howe Sound, Celgar, and others, and determining how much access each would have to embedded cost utility power while selling self-generated electricity, BC Hydro had no written policies, procedures, or guidelines that it made available to self-generators, and it apparently had no internal policies, procedures or guidelines even for its own use. There was no written methodology it applied. There were no formalized internal controls to ensure fair or non-discriminatory treatment. There was no standard form for explaining or documenting any mill-specific GBL calculation. As Mr. Switlishoff notes, “{i}nstead, BC Hydro appears to have proceeded to set GBLs on an entirely *ad hoc* basis, making case-by-case determinations unguided and unfettered by any written process or methodology.”<sup>296</sup>

253. Moreover, because BC Hydro keeps all its GBLs and agreements containing GBLs confidential, there has been no way for anyone to analyze whether BC Hydro’s approach has been consistent across companies or even effectively complain that it is not. Indeed, it also appears that BC Hydro itself has never performed any such comparative analysis.

254. In light of the lack of written policies, procedures, methodologies, and transparency, and the absence of any review mechanism, it would seem all but impossible for Canada to comply with its NAFTA obligation to “ensure” that BC Hydro afford Celgar treatment

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<sup>295</sup> In C-132, Letter from Erica Hamilton, Commission Secretary, BCUC, to Joanna Sofield, Chief Regulatory Officer, BC Hydro (27 November 2009), the BCUC requested that BC Hydro provide draft guidelines for the determination of GBLs. It took BC Hydro over two and one-half years, until June 20, 2012 to do so, when it filed an Information Report including an Appendix entitled “Contracted GBL Guidelines — For Information Purposes Only.” See C-26, BC Hydro, Information Report (June 2012) at app. G, 60–64 (“2012 GBL Guidelines”).

<sup>296</sup> Switlishoff Expert Statement, ¶ 54.

no less favorable than that afforded to Canadian and third-country comparators in like circumstances. Consistent treatment seemingly could occur only by serendipity. As Mr. Switlishoff testifies: “The very purpose of written policies and procedures is to ensure consistency and uniform treatment, so that each new case can be handled under the same rules and the results tested against those rules. The existence of written rules, policies, and procedures constrains the discretion of the decision-maker. This narrowing of discretion simply is not possible, and does not occur, with unwritten policies and procedures.”<sup>297</sup>

*b. BC Hydro’s Tenders for Power*

255. The only indications about GBLs that BC Hydro provided took the form of general descriptions and data requests issued in connection with the periodic power purchase requests for proposals it issued. For example, Canada provided to Claimant an undated document summarizing the terms of various tenders BC Hydro has made for customer-based generation.<sup>298</sup> The first tender listed is a 2002 Call for Tenders. It states that “the proposed electricity supply must be new or incremental” but it does not define those terms. In the case of pre-existing facilities, the tender notes that it will be “necessary to determine the generator’s historic generation capability.” Finally, it states that the GBL will be determined based on generator nameplate capacity unless the applicant provides detailed data including “historical operating data for each electric generator in MWh as a daily average listed by month for a

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<sup>297</sup> Switlishoff Expert Statement, ¶ 57.

<sup>298</sup> C-134, Customer Based Generation, 2002 Call for Tenders along with 2002 CBG Generator Baseline Application, Standard Electricity Purchase Agreement for Customer Based Generation, Feb 2003 (Appendix 5), Standing Offer for Energy Draft Program Rules from 18 January 2008, and Standing Offer - Standard Form EPA from 14 December 2007.

minimum of 3 years that represent long-term normal operating conditions,” and the peak output for each month over the past 10 years.<sup>299</sup>

256. These documents indicate only that historical generation data are used, somehow, and that a time period of three years typically is considered.

c. *BC Hydro’s June 2012 GBL Guidelines*

257. Even BC Hydro’s June 2012 GBL Guidelines provide little further illumination regarding BC Hydro’s GBL computation methodology. The document is only 2.5 pages long. It notes that its approach “does not follow a prescriptive, ‘one-size-fits-all’ formulaic approach,” but that the “foundation information is the customer’s historical self generation output {no time frame mentioned}, industrial plant load and purchases from BC Hydro.” BC Hydro then provides illustrative but non-exclusive “examples of the types of considerations BC Hydro may take into account when establishing a customer’s contracted GBL.”<sup>300</sup>

258. The guidelines also list eight examples of factors that “may” be considered, but provides no explanation at all as to when or how they are considered. These factors include:

- market conditions;
- “{t}he relationship between the customer’s industrial production process and its self-generation”<sup>301</sup>;
- the customer’s historical sales of electricity;
- abnormal events;
- thermal balance requirements
- fuel type, supply and costs;
- changes in control, ownership, or management; and

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<sup>299</sup> C-134, Customer Based Generation, 2002 Call for Tenders along with 2002 CBG Generator Baseline Application, Standard Electricity Purchase Agreement for Customer Based Generation, Feb 2003 (Appendix 5), Standing Offer for Energy Draft Program Rules from 18 January 2008, and Standing Offer - Standard Form EPA from 14 December 2007, at 1–2.

<sup>300</sup> C-26, BC Hydro, Information Report (June 2012), app. G at 2 (emphasis added).

<sup>301</sup> C-26, BC Hydro, Information Report (June 2012), app. G at 2.

- the type, age, and efficiency of the generator.

259. As is obvious, and as Mercer’s expert Mr. Switlishoff confirms, the guidelines are “too vague and general either to enable the calculation of any new GBL based on actual data, or the validation of any GBL BC Hydro previously computed . . . . They provide no uniform methodology that two engineers, lawyers, accountants, or any other professional could apply to a given set of facts and arrive at the same resulting GBL.”<sup>302</sup> Indeed, as noted earlier, on December 13, 2013, the BCUC expressed its own concerns regarding the GBL Guidelines, which BC Hydro and FortisBC had proposed to adopt in their 2013 PPA. The Commission observed that the guidelines “are fairly general, subject to considerable interpretation, not necessarily transparent and have not been approved by the Commission.”<sup>303</sup>

#### **8. The BC Pulp and Paper Joint Task Force and the BC Working Group on Pulp & Paper Self-Generation Sales Policy**

260. The BC Government, which, as noted, has not promulgated any laws, regulations, or binding rule of law addressing a self-generator’s access to embedded cost power while selling electricity not in excess of load, however, did communicate its perspective to part of the industry.

261. In March 2007, the BC Pulp and Paper Joint Task Force was created as a joint initiative between the BC Pulp and Paper Industry and the BC government with the overarching purpose of working on policy and hosting conditions for the long term sustainability of the industry.<sup>304</sup> In November 2007, the Task Force submitted a position paper to the BC government

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<sup>302</sup> Switlishoff Expert Statement, ¶ 58.

<sup>303</sup> C-27, Letter from Erica Hamilton, Commission Secretary, to Janet Fraser, Chief Regulatory Officer, BC Hydro (13 December 2013) (Exhibit A-17 to *BC Hydro PPA - RS 3808, TS No. 2 & 3 Proceeding*).

<sup>304</sup> Gandossi Witness Statement, ¶ 54.



on electricity conservation and self-generation issues. Mercer chaired that group. The Province responded by forming a Working Group on Pulp & Paper Self-Generation Sales Policy (“Working Group”), comprised of members of the Pulp & Paper Task Force, provincial representatives, members of the solid wood (lumber) sector, including the Council of Forest Industries (COFI), and BC Hydro. The Working Group was co-chaired by Assistant Deputy Ministers from MEM and MOF, and reviewed options for pulp and paper self-generation. The Province did not invite FortisBC to participate.<sup>305</sup>

262. The Working Group met on several occasions in 2008, including in February, March, June, and October.<sup>306</sup> The draft minutes of the 24 June meeting reflect that, with respect to self-generated electricity: “Government is firm that incremental generation is, and should be, priced on the margin but that neither re-pricing of existing generation nor arbitrage against heritage power prices is acceptable.”<sup>307</sup> Later, a 23 September 2008 Draft Briefing Note prepared for Government Ministers stated: [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>308</sup>

263. Other than communicating this general viewpoint, the BC Government took no steps to formalize its pronouncement in the form of a binding rule of law, it issued no guidance

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<sup>305</sup> Gandossi Witness Statement, ¶ 59.

<sup>306</sup> Gandossi Witness Statement, ¶ 60.

<sup>307</sup> C-135, Pulp & Paper Self-Generation Working Group, Meeting Notes (Draft, 24 June 2008) at 2; *see also* Gandossi Witness Statement, ¶ 60.

<sup>308</sup> C-136, MEM, Briefing Note for Information, Progress Report on the Working Group on Pulp & Paper Self-Generation Sales Policy (Draft, 23 September 2008) at 3; *see also* Gandossi Witness Statement, ¶ 60.

on how to distinguish between “existing supply” and “new” or “incremental supply,” or as of what point in time, and it implemented no procedures to ensure consistent treatment among self-generators seeking access to embedded cost power while selling their own electricity. And, of particular interest to Celgar, neither the BCUC nor the Government had provided any information on whether or how any of this self-generator policy, which appeared to be aimed at BC Hydro, and focused on arbitrage against BC Hydro heritage prices (only BC Hydro is subject to the Heritage Contract), substantively or procedurally, applied in FortisBC’s territory.

**PART II: CANADA'S TREATMENT OF MERCER**

**IV. MERCER'S INVESTMENTS AND OPERATION OF THE CELGAR MILL**

**A. The Mill's History Under Prior Owners**

264. The history of the Celgar Mill goes back to 1959, when its first pulp operations began. At that time, the Celanese Corporation of America owned the Mill. As originally configured, the plant had installed little electric generation capacity, and included only a 3.5 MW steam turbine.<sup>309</sup>

265. The mill went through a series of different owners, including the BC Government, during the 1970s and 1980s.<sup>310</sup> In 1986, a joint venture of Consolidated Bathurst and Power Corporation and Chinese International Trust and Investment Corp. ("CITIC"), named Power Consolidated (China) Pulp, purchased the mill.<sup>311</sup>

266. In 1989, the mill was owned by Stone Venepal (Celgar) Pulp, Inc., a joint venture of Stone Container Corp. (which had acquired Consolidated Bathurst) and CITIC. By that time, Provincial pollution regulations had become more stringent, and the mill was one of the first in British Columbia to have difficulties meeting air and effluent emissions requirements. To avoid a forced shutdown due to impermissible emissions, Stone Venepal announced that it would undertake a major revitalization of the mill.<sup>312</sup>

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<sup>309</sup> Gandossi Witness Statement, ¶ 22.

<sup>310</sup> The mill was majority or wholly-owned by the BC Government from 1973-1986. In 1973, the British Columbia Government purchased 81 percent of the mill's parent company and renamed it the Canadian Cellulose Company. British Columbia purchased the remaining 19 percent of the mill's parent company in 1980, and the mill became part of BC Timber Ltd. Gandossi Witness Statement, ¶ 22 n. 13.

<sup>311</sup> See Gandossi Witness Statement, ¶ 22.

<sup>312</sup> Gandossi Witness Statement, ¶ 23.

267. By late 1993, Stone Venepal had completely rebuilt the Celgar Mill, at a cost of C\$ 850 million. The modernization, which was financed in part through a C\$ 750 million loan from the Royal Bank of Canada and National Westminster, included the installation of a new 52 MW steam turbine and generator, which became operational in 1994.<sup>313</sup> The technology for recovery and pulp production systems in NBSK mills had improved since the mill had first been built, enabling greater steam and thus electricity production as well as reducing pulp mill thermal and electricity requirements.<sup>314</sup> The Celgar Mill was the second pulp mill in British Columbia, after Howe Sound, to utilize a much newer generation of kraft pulp mill technology, to install significant generation capacity, and to achieve greater energy efficiency in its pulp production process.<sup>315</sup>

268. By 1998, however, the Celgar Mill's revenues were insufficient to cover the substantial debt Stone Venepal had taken on to rebuild the Mill. On July 15, 1998, Stone Container Corp. advised the lenders that it would no longer cover the Mill's cash shortfalls, and that the Mill would be put into bankruptcy. The Royal Bank of Canada appointed KPMG to serve as receiver and to operate the Mill until a buyer could be found. The Mill operated on a caretaker basis in bankruptcy receivership from 1998 to 2005.<sup>316</sup>

269. As Brian Merwin, Mercer's Vice-President for Strategic Initiatives states,

Though a drop in pulp revenue due to weak markets was definitely a factor the Celgar Mill's bankruptcy likely was due to the fact that its pulp production was not creating enough black liquor to meet the energy needs of the mill. This, together with the under

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<sup>313</sup> Gandossi Witness Statement, ¶ 24. In 1994, the Celgar Mill's original 3.5 MW turbine also failed and was decommissioned. Gandossi Witness Statement, ¶ 24 n.14.

<sup>314</sup> Merwin Witness Statement, ¶ 30.

<sup>315</sup> Merwin Witness Statement, ¶ 32.

<sup>316</sup> Gandossi Witness Statement, ¶ 25.

realization of electricity revenue, created high costs. Those high energy costs, coupled with several hundred million dollars of capital expenditures on the energy system which was not seeing returns, made it impossible for pulp production alone to ensure the economic viability of the mill.<sup>317</sup>

**B. Mercer's Investments**

**1. Mercer's Purchase of the Celgar Mill**

270. Mercer first learned of the opportunity to acquire the Celgar Mill in July 2003, [REDACTED]

[REDACTED] After the success Mercer had experienced with its investment in its Rosenthal Mill in Germany, Mercer considered the Celgar Mill an excellent opportunity to transform and improve another pulp mill and its cogeneration operation, while improving profitability and creating value for its shareholders.<sup>318</sup>

271. Mercer conducted extensive due diligence to evaluate Celgar, and through this process identified areas for improvement. Mercer concluded that the Mill's pulp production was sporadic, unreliable, and inefficient, and that its chemical and energy costs both could be reduced.<sup>319</sup>

272. Mercer's evaluation of Celgar had focused principally on the Mill's pulp production capabilities, and not on its production and sales of self-generated electricity.<sup>320</sup> At the time, the Celgar Mill suffered from problems with production stability and reliability, which led to frequent unplanned mill shutdowns. Because electricity cannot be generated during mill shutdowns, the Celgar Mill's electricity generation also was unpredictable. As explained above,

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<sup>317</sup> Merwin Witness Statement, ¶ 34.

<sup>318</sup> Gandossi Witness Statement, ¶ 34.

<sup>319</sup> See Gandossi Witness Statement, ¶ 28; Merwin Witness Statement, ¶ 36.

<sup>320</sup> See Gandossi Witness Statement, ¶ 30.

high-value, firm electricity sales require consistent and reliable electricity generation. In light of the Mill's lack of reliability, the Mill had been using its self-generated electricity almost exclusively to meet its own load. Nonetheless, the Mill had been engaging in some non-firm sales to FortisBC of energy in excess of the Mill's own needs, pursuant to a 2000 brokerage agreement between the Mill and the utility.<sup>321</sup>

273. Mercer also appreciated that the Celgar Mill had been in receivership for over five years, placing the Mill in a hibernation of sorts. The Mill's receivership status did not lend itself to an aggressive pursuit of investment opportunities or improvements in the Mill's pulp and electricity operations.<sup>322</sup> Mercer therefore first wanted to determine whether an investment in the Mill's pulp production alone would be a prudent one, with the knowledge that improvements in the reliability of the Mill's pulp production would eventually lead to increased and reliable electricity generation and sales potential. As David Gandossi, Mercer's Executive Vice-President, Chief Financial Officer and Secretary explains,

We did not separately evaluate the Mill's potential to generate revenue from electricity sales — principally because we did not think that selling the mill's self-generated electricity would be necessary to earn a reasonable rate of return on our investment. This being said, we knew from our experience with our German operations that increasing the mill's electricity generation, and the reliability of such generation, could lead to increased revenues from electricity sales. Indeed, we had had good experience in selling electricity from our German mills to the local grid. This was a practice well-established by the world's large, modern NBSK pulp producers at the time.<sup>323</sup>

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<sup>321</sup> See Merwin Witness Statement, ¶ 45 and Annex A.

<sup>322</sup> See Gandossi Witness Statement, ¶ 29.

<sup>323</sup> Gandossi Witness Statement, ¶ 30.

274. At the conclusion of its due diligence exercise, Mercer determined that the Celgar mill was a “solid, well-built, but poorly run asset.”<sup>324</sup> Mercer concluded that an acquisition at the right price would provide a great opportunity to create shareholder value through continuous improvement of the Mill in cutting costs, and, in particular, by implementing best practices from Mercer’s German operations.<sup>325</sup>

275. After initial negotiations failed in late summer 2003, Mercer abandoned its effort to acquire the Mill [REDACTED]. In 2004, Mercer made a second approach to the banks that owned the Mill, [REDACTED]. Talks with the banks were fruitful, and Mercer acquired the Celgar Mill on 14 February 2005 for a price of US\$ 210 million.<sup>326</sup>

## **2. The Operating History at the Celgar Mill and Mercer’s Investments in Green Energy Production**

### *a. Celgar’s Operations Before Mercer’s Investment*

276. At its origin, the Celgar Mill began as a modest NBSK pulp production enterprise with little self-generation capacity. The 1993 investments and improvements by Stone Venepal changed Celgar’s profile dramatically.<sup>327</sup> In 1992, before Stone Venepal’s improvements, the Celgar Mill produced 132,570 ADMT of pulp and generated 10.6 GWh of electricity. Once the

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<sup>324</sup> Gandossi Witness Statement, ¶ 29.

<sup>325</sup> Gandossi Witness Statement, ¶ 29.

<sup>326</sup> Gandossi Witness Statement, ¶¶ 33, 40.

<sup>327</sup> Merwin Witness Statement, ¶ 31.

improvements came fully on-line in 1995, those figures shot up to 374,054 ADMT and 308.8 GWh per year.<sup>328</sup>

277. Celgar's electricity generation had in fact increased to such a level that, in 1995, the Mill began making occasional, non-firm, low-priced electricity sales to its utility, FortisBC (then known as WKP).<sup>329</sup> [REDACTED]

[REDACTED] Instead, Celgar was limited to selling electricity sporadically, and on a non-firm basis, to its utility.<sup>330</sup>

278. After the 1993-94 improvements, Celgar continued to purchase electricity from FortisBC, albeit in significantly decreased quantities. From 1990 through 1994, the Celgar Mill's electricity purchases had ranged from 114.2 GWh per year to 190.0 GWh per year. In 1995, Celgar's electricity purchases dropped to 22.3 GWh per year.<sup>331</sup>

279. Throughout this time frame, due to low natural gas prices, the Mill was burning natural gas in addition to black liquor to generate the steam powering its turbine generator. As stated above, from 1992-2000, the Celgar Mill consumed between approximately two and four million gigajoules of natural gas for steam production annually.<sup>332</sup> However, as also noted, prices for natural gas in BC rose sharply toward the end of 2000, past the point at which it was economical for Celgar to burn gas to generate electricity to avoid the cost of purchasing

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<sup>328</sup> Merwin Witness Statement, ¶ 31 and Annex A.

<sup>329</sup> Pursuant to a 2000 Brokerage Agreement, [REDACTED]

[REDACTED] See Merwin Witness Statement, ¶ 45.

<sup>330</sup> Merwin Witness Statement, ¶ 31.

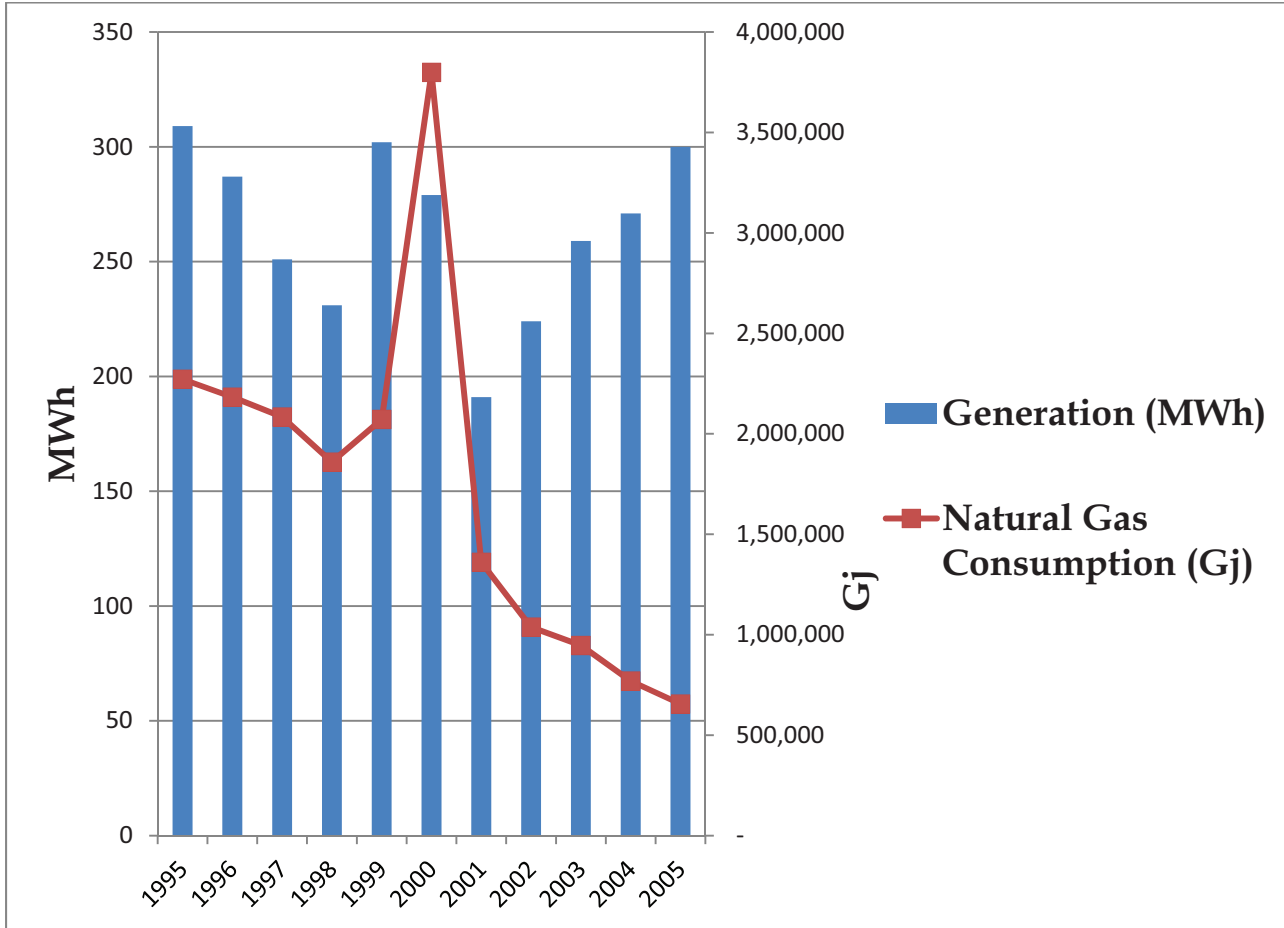
<sup>331</sup> Merwin Witness Statement, ¶ 31 and Annex A.

<sup>332</sup> Merwin Witness Statement, Annex A.



electricity from FortisBC. The following table illustrates the decline in the Mill's gas consumption, and corresponding decline in electricity production in 2000-2001:

**Figure 10**  
**Celgar Generation and Natural Gas Consumption**  
**1995-2005**  
**(MWh and GJ)**



280. Exactly like the Howe Sound pulp mill at the time, Celgar idled a significant portion of its generation capacity in response to high natural gas prices, and essentially switched principally to burning its black liquor production to generate electricity.<sup>333</sup>

<sup>333</sup> Merwin Witness Statement, ¶ 126.

b. Initial Electricity Sales after  
Mercer Acquisition

281. Having acquired the Celgar Mill in 2005, Mercer turned to the task of implementing the improvements it had identified during its due diligence review. Its initial focus was to improve the Mill's reliability, which would lead to increased pulp production, and more energy efficient and reliable mill operation.<sup>334</sup> Increased energy efficiency means reduced electricity consumption. Increased pulp production translates directly into increased electricity generation, because the Mill produces more black liquor with each ton of pulp. And more reliable operations ultimately translate into the ability to make long-term firm energy sales.<sup>335</sup> To achieve these goals at the Celgar Mill, Mercer instituted best practices from its two mills in Germany, and made a significant additional capital investment in the Mill's equipment, through a project it named Blue Goose.<sup>336</sup>

282. Before implementing those improvements, however, Mercer focused on optimizing revenue from the electricity it could sell on a non-firm basis. After Mercer's acquisition of the Mill in 2005, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>337</sup>

283. On 1 October 2006, Celgar and FortisBC signed a new General Service Power Contract, which shifted Celgar from RS 31 to RS 33 for its electricity purchases, and a new 2006

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<sup>334</sup> Merwin Witness Statement, ¶ 37.

<sup>335</sup> Merwin Witness Statement, ¶ 38.

<sup>336</sup> Merwin Witness Statement, ¶ 54.

<sup>337</sup> Merwin Witness Statement, ¶ 47.

Brokerage Agreement [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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284. Mercer also studied the rules providing for Open Access to the transmission system. Open Access would enable Celgar to transmit its generation to spot markets in Alberta and the US.<sup>340</sup> FortisBC supported Mercer's efforts to export its self-generated electricity, and in July 2006, FortisBC granted Celgar's request for short-term firm point to point transmission access to facilitate Celgar's electricity sales.<sup>341</sup>

285. At the same time, Celgar entered into an agreement with NorthPoint Energy Solutions, a power marketing corporation owned by the Government of Saskatchewan, whereby NorthPoint would [REDACTED]

[REDACTED]

[REDACTED] The arrangement with NorthPoint worked on an [REDACTED]

[REDACTED]

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<sup>338</sup> C-269, General Service Power Contract and Brokerage Agreement Between Zellstoff Celgar Limited Partnership and FortisBC Inc. (1 October 2006).

<sup>339</sup> C-269, General Service Power Contract and Brokerage Agreement Between Zellstoff Celgar Limited Partnership and FortisBC Inc. (1 October 2006).

<sup>340</sup> See description of Transmission Open Access, *supra* Section III.A.1.

<sup>341</sup> Merwin Witness Statement, ¶ 48; see C-212, Letter Agreement between [REDACTED] FortisBC, and [REDACTED] Zellstoff Celgar Limited Partnership (7 July 2006).

<sup>342</sup> C-213, Marketing Services Agreement between Celgar and NorthPoint Energy Solutions Inc. (12 July 2006), Clauses, Art. 1.1(j).

[REDACTED]<sup>343</sup> As

Mercer's Brian Merwin explains, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] In 2006, power prices in Alberta at times reached C\$ 1,000/MWh. [REDACTED]

[REDACTED]

[REDACTED]<sup>345</sup>

*c. Project Blue Goose*

286. During its November 2004 pre-purchase due diligence review of the Celgar Mill, Mercer had enlisted the support of [REDACTED] to identify the key reasons for the Mill's production constraints, and its high chemical and energy costs.<sup>346</sup> [REDACTED]

[REDACTED]<sup>347</sup>

In June 2005, the Mercer Board approved the recommended capital investment, and planned for

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<sup>343</sup> Merwin Witness Statement, ¶ 52.

<sup>344</sup> Merwin Witness Statement, ¶ 52.

<sup>345</sup> Merwin Witness Statement, ¶ 53. In accordance with the Celgar-NorthPoint Marketing Services Agreement, [REDACTED]

[REDACTED] C-213, Marketing Services Agreement between Celgar and NorthPoint Energy Solutions Inc. (12 July 2006), § 5.1.

<sup>346</sup> Merwin Witness Statement, ¶ 55.

<sup>347</sup> Merwin Witness Statement, ¶ 55; *see* C-159, [REDACTED] Technical Due Diligence" for Mercer International Inc. (18 November 2004) at 7.

the commissioning of facilities in the fourth quarter of 2006.<sup>348</sup> The project was dubbed Blue Goose, and Mercer projected it would raise annual pulp production from approximately [REDACTED]

[REDACTED]

[REDACTED]<sup>350</sup>

287. Due to labor union activity throughout BC, Mercer rescheduled the planned shutdown of the Mill to implement the Blue Goose project. Mercer thus delayed the installation of the Blue Goose equipment improvements until April 2007. The full commissioning and fine tuning of the Blue Goose Project improvements occurred over the next several months in 2007. Mercer ultimately spent C\$ 27.44 million on the project, and Blue Goose ultimately improved pulp production to over 500,000 ADMT per year. This led to an increase in black liquor production and the concomitant addition of 64,000 MWh of incremental annual electricity generation related directly to the Blue Goose Project.<sup>351</sup> As a result of the Blue Goose Project,

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<sup>348</sup> Merwin Witness Statement, ¶ 56.

<sup>349</sup> Merwin Witness Statement, ¶ 56; *see* C-159, [REDACTED] "Technical Due Diligence" for Mercer International Inc. (18 November 2004) at 8.

<sup>350</sup> Merwin Witness Statement, ¶ 56.

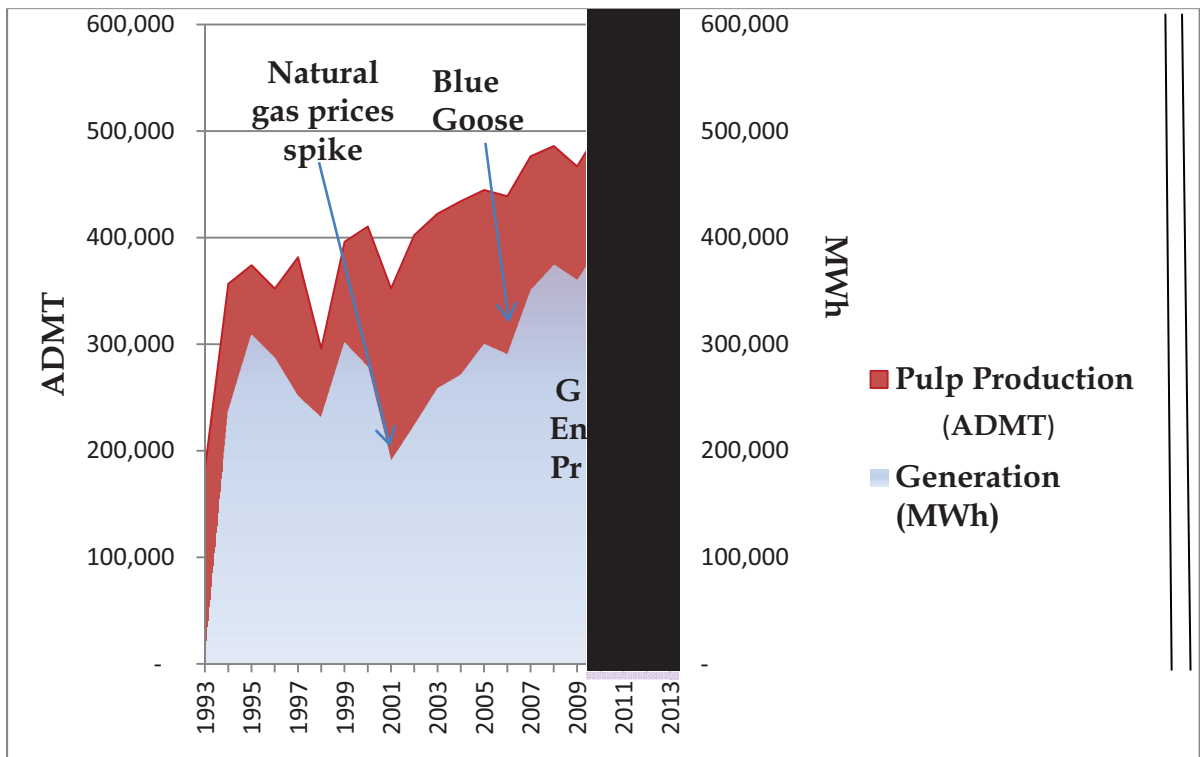
<sup>351</sup> Specific improvements made under the Blue Goose Project included:

[REDACTED]

[FOOTNOTE CONTINUED ON NEXT PAGE]

Celgar's electricity generation increased over 20 percent, from 290.4 GWh in 2006 to 350.6 GWh in 2007 — Celgar's highest ever level of annual electricity generation. The historical development of Celgar's pulp production and energy generation are illustrated below:

**Figure 11**  
**Celgar Electricity Generation and Pulp Production**  
**1990-2007**



288. Due to this significant new energy production, electricity generation, Celgar was able to reduce its electricity purchases from FortisBC. From 1996 (the year after previous owner

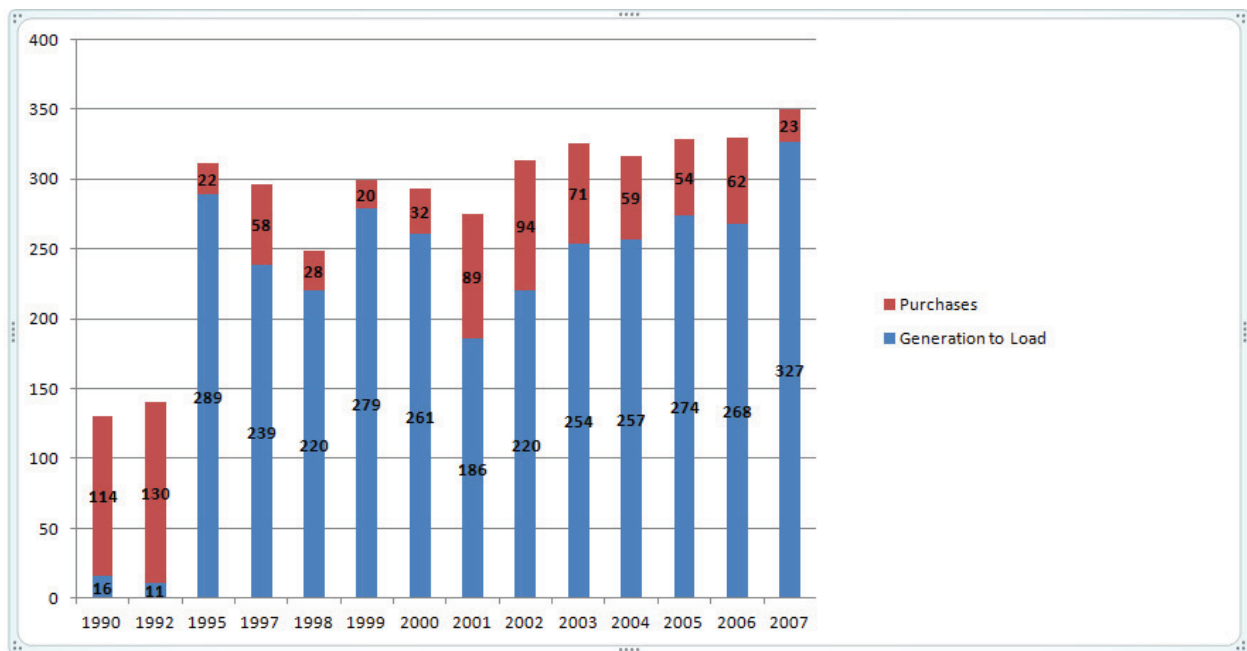
[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

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See Merwin Witness Statement, ¶ 57.

Stone Venepal made significant performance improvements to the Mill) through 2006 (post-Mercer acquisition and pre-Blue Goose improvements), Celgar’s utility electricity purchases had averaged 54.1 GWh annually. In 2007, the year after the Blue Goose improvements came on line, Celgar’s electricity purchases dropped to 22.6 GWh per year. Most importantly, Blue Goose succeeded at improving the Mill’s reliability, which allowed Mercer to contemplate engaging in long-term firm electricity sales.<sup>352</sup> Figure 12 below illustrates Mercer’s historical energy purchases as well as the self-generation it applied to meeting its load. The total of the two equals Celgar’s electric load.

**Figure 12**  
**Celgar Electricity Generation and Purchases**  
**1990-2007**



<sup>352</sup> Merwin Witness Statement, ¶ 60.



d. Mercer's Green Energy Project,  
Arbitrage Project and 2008 Power  
Supply Agreement with FortisBC

289. Once the Blue Goose power project improvements came online, Celgar carried out studies of the Mill's performance and its potential to engage in firm electricity sales.<sup>353</sup> Not only were firm electricity sales a real possibility for Celgar, but also the Mill's improved performance consistently created sufficient surplus steam sufficient to power another electricity generating turbine.<sup>354</sup> This new awareness regarding the Mill's steam production capabilities would serve as the foundation of Mercer's next significant investment project: the Green Energy Project. In this new project, Mercer contemplated the installment of an additional 48 MW condensing turbine (along with other energy-related upgrades) that would capture and utilize the Mill's surplus steam to generate additional new electricity.

290. In June 2007, Celgar approached FortisBC, after first signing a non-disclosure agreement, [REDACTED]

[REDACTED]

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<sup>353</sup> Merwin Witness Statement, ¶ 60.

<sup>354</sup> See Merwin Witness Statement, ¶ 65 ("In 2006, Mercer initiated a Pinch study project, with the assistance of a Natural Resources Canada funding program, to study steam-saving opportunities at the Mill. The project identified a significant number of steam-savings opportunities."); see also Gandossi Witness Statement, ¶ 42 ("In 2006, Celgar commissioned [REDACTED] to conduct a PINCH analysis, which is a systematic procedure for investigating the energy flows in a given industrial process, in order to identify steam savings opportunities. The PINCH study identified six projects that had the potential to reduce Celgar's steam utilization by 15 percent. At the same time, Celgar had been studying the potential of retrofitting its existing power boiler to burn more hog fuel and create additional steam production. With the higher pulp production volumes that Celgar was achieving at that time, the Mill had significant quantities of surplus steam that were being vented to the atmosphere.").

<sup>355</sup> Merwin Witness Statement, ¶ 66. Discussions began earlier in 2007, but the execution of a Non-Disclosure Agreement in June 2007 led to more formal discussions. C-188, Confidentiality Agreement between Celgar and FortisBC (6 June 2007).

[REDACTED] the discussions shifted to the possibility of FortisBC supplying Celgar with electricity to meet its full load requirements while Celgar would simultaneously sell the entire output of its two generators to third parties within or outside of BC.<sup>356</sup> FortisBC expressed strong interest in this opportunity.<sup>357</sup>

291. In light of this positive response from FortisBC, Celgar studied and developed the foundation of its potential arrangement with FortisBC, naming it the Arbitrage Project.<sup>358</sup> At the time, the only regulatory directive regarding self-generators engaging in arbitrage was BCUC Order G-38-01, which, by its terms, applied only to BC Hydro and its customers. [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] FortisBC and Celgar therefore proceeded to negotiate an agreement to support Celgar's Arbitrage Project.

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<sup>356</sup> Merwin Witness Statement, ¶ 66.

<sup>357</sup> C-214, Email chain involving [REDACTED] and [REDACTED] (19 June 2007 email from [REDACTED] to [REDACTED]) at MER00292771 [REDACTED]

<sup>358</sup> C-216, Mercer International Group, Presentation titled "Celgar Electricity Opportunities" (23 July 2007).

<sup>359</sup> See Merwin Witness Statement, ¶¶ 68; C-216, Mercer International Group, Presentation titled "Celgar Electricity Opportunities" (23 July 2007) at slide 8 (reflecting Mercer's understanding at the time that "It is believed all pulp mills with self-generation have terms in their power supply agreements with BC Hydro that restrict mills from buying all their industrial power needs at BC's low industrial power rate and at the same time being able to sell its internally generated power to the market at the much higher green power rate. We have been studying this arbitrage opportunity for Celgar as the rules that Celgar operates under are less restrictive than in the BC Hydro territory.").

<sup>360</sup> Merwin Witness Statement, ¶¶ 71–72; see also C-214, Email chain involving [REDACTED] and [REDACTED] (26 September 2007 email from [REDACTED] to [REDACTED]) at MER00292771; C-214, Email chain involving [REDACTED] and [REDACTED]

[FOOTNOTE CONTINUED ON NEXT PAGE]

292. While FortisBC and Celgar were in negotiations, FortisBC notified Celgar that BC Hydro had expressed opposition to Celgar's planned Arbitrage Project, and that BC Hydro would challenge any FortisBC-Celgar agreement before the BCUC. [REDACTED]  
[REDACTED] that BC Hydro intended to use a similar agreement that FortisBC had reached with the City of Nelson, and the 1993 PPA between BC Hydro and FortisBC (explained above), as grounds for stopping FortisBC from supplying embedded cost power to Nelson, Celgar, and other FortisBC self-generators while they were selling self-generated electricity. [REDACTED]  
[REDACTED]  
[REDACTED]

293. Despite BC Hydro's expressed opposition to the Arbitrage Project, FortisBC advised Celgar that it was confident that the 1993 PPA could not be interpreted to restrict FortisBC from serving Celgar's load while Celgar sold its self-generated electricity.<sup>362</sup>

294. On 21 August 2008, following almost one and a half years of extensive discussions, Celgar and FortisBC executed a 30-year Power Supply Agreement (the "2008 PSA"

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

[REDACTED] (24 October 2007 email from [REDACTED] and [REDACTED]  
[REDACTED] at MER00292770.

<sup>361</sup> See Merwin Witness Statement, ¶ 70; C-216, Mercer International Group, Presentation titled "Celgar Electricity Opportunities" (23 July 2007) at slide 9; C-214, Email chain involving [REDACTED] and [REDACTED] (12:14 pm, 10 July 2008 email from [REDACTED] to [REDACTED]) at MER00292757.

<sup>362</sup> See Merwin Witness Statement, ¶ 71; C-216, Mercer International Group, Presentation titled "Celgar Electricity Opportunities" (23 July 2007) at slide 9.

or the “Celgar-FortisBC Power Supply Agreement”), pursuant to which Celgar was entitled to purchase from FortisBC, on a firm basis, all of the electricity required to operate its pulp mill at FortisBC’s embedded cost rates.<sup>363</sup> The 2008 PSA also would have enabled Celgar to sell all of its self-generated electricity at market prices.<sup>364</sup>

295. The agreement was subject to approval by the BCUC, and FortisBC filed the 2008 PSA with the BCUC on 26 August 2008. The parties expected the BCUC would approve the agreement within 120 days, or around January 1, 2009, as indicated by Section 4.2 of the agreement. That provision provided either party with the right to terminate the agreement if BCUC approval was not granted within 120 days.<sup>365</sup>

*e. Mercer’s Green Energy Project  
and BC Hydro’s BioEnergy  
Power Call Phase I*

296. In March 2007 — while Celgar was in negotiations with FortisBC over their Power Supply Agreement — and as required by the Province’s 2007 Energy Plan, BC Hydro issued its Request for Expressions of Interest to supply biomass-based electricity, under what it would later term Bioenergy Phase I.<sup>366</sup> Celgar participated in this process, which culminated in a meeting between Celgar and BC Hydro, in which Celgar introduced its Green Energy Project,

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<sup>363</sup> C-220, Power Supply Agreement between Celgar and FortisBC Inc. (21 August 2008), §§ 3.1, 3.3

<sup>364</sup> C-220, Power Supply Agreement between Celgar and FortisBC Inc. (21 August 2008), Art. 9.

<sup>365</sup> C-220, Power Supply Agreement between Celgar and FortisBC Inc. (21 August 2008), § 4.2.

<sup>366</sup> See discussion of the BC Province’s 2007 Energy Plan BC Hydro’s consequent calls for power *supra* Section II(B)(5)(iii).

and proposed to sell to BC Hydro all electricity generated from the planned installation of a new 48 MW condensing turbine generator.<sup>367</sup> By the time Celgar began discussing its Green Energy Project with BC Hydro, Celgar was well into its construction of the project. This apparently surprised BC Hydro. As Brian Merwin explains,

At the start of every discussion with BC Hydro I would give an update of our Green Energy Project, and it was always interesting watching the “deer-in-the-headlights” expression on BC Hydro employee faces when they were new to these discussions. I recall one BC Hydro employee asking me after my update, somewhat in disbelief: “You are building a project without a power contract from us?” I confirmed that that was our plan and informed the employee that although BC Hydro was our first choice for a power purchaser, we had options with third parties as well.<sup>368</sup>

297. During this informational meeting, Mercer in fact submitted proposals for two projects: The Green Energy Project and the Biomass Realization Project. The latter project proposed Celgar’s sale of its pre-existing generation output to BC Hydro. BC Hydro informed Celgar that it would not agree to purchase any of Celgar’s existing generation output through Celgar’s proposed Biomass Realization Project, as the terms of BC Hydro’s Bioenergy Phase I power offer limited the offer to new generation.<sup>369</sup>

298. BC Hydro’s lack of interest did not deter Celgar from pursuing other opportunities to sell that power. Indeed, Celgar already had identified [REDACTED]

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<sup>367</sup> Merwin Witness Statement, ¶ 79. Celgar’s Green Energy Project was, as Brian Merwin explains, “{A} culmination of a series of smaller steps which included operational best practices, the Blue Goose Project, and the Pinch Study . . . . {which then led to} the installation of a 48 MW condensing turbine, a series of mill steam savings projects to free up more steam for power generation and a significant upgrade to Celgar’s hog fuel (bark) fired boiler to increase its production of steam.” Merwin Witness Statement, ¶ 77.

<sup>368</sup> Merwin Witness Statement, ¶ 101.

<sup>369</sup> Merwin Witness Statement, ¶ 81

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Celgar had also identified electricity sales opportunities through its power broker, NorthPoint. As Brian Merwin explains, “By the summer of 2008, Mid-C power contract prices were very robust and [REDACTED]

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299. On 6 February 2008, BC Hydro issued its first call for bioenergy proposals under Bioenergy Phase I.<sup>372</sup> While Celgar was preparing its bid proposal, and based on preliminary data Celgar had supplied during the bid preparation phase,<sup>373</sup> BC Hydro assigned Celgar a preliminary GBL.<sup>374</sup> At the time, Celgar had understood that the purpose of a GBL was simply to define the amount of firm energy BC Hydro would purchase, which would be equal to the amount of electricity Celgar generated above the GBL. Celgar had no understanding that it would not be permitted to sell energy below its GBL to third-parties, such as [REDACTED] or to other third parties through NorthPoint.<sup>375</sup>

<sup>370</sup> Merwin Witness Statement, ¶¶ 83, 87. [REDACTED]

<sup>371</sup> Merwin Witness Statement, ¶ 83.

<sup>372</sup> See C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009) at 2.

<sup>373</sup> See C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009), app. A Request for Proposals (6 February 2008) at 3 of 36 (noting a 7 March 2008 deadline for bid proponent submission of GBL data).

<sup>374</sup> See Merwin Witness Statement, ¶ 88; C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009) at 9, app. A, at 3-4.

<sup>375</sup> The Request for Proposals for BioEnergy Call Phase I made two terse references to GBLs, as follows:

[FOOTNOTE CONTINUED ON NEXT PAGE]

300. BC Hydro initially had informed Celgar that it was only interested in purchasing electricity generated net of Celgar's load in any hour. This meant the GBL would fluctuate continuously with Celgar's load. Celgar had advised BC Hydro that such an approach deviated from the form contract provided in the Bioenergy Phase I process, which contemplated a GBL fixed for the term of the contract, and that for planning purposes Celgar required a fixed GBL and thus a fixed firm energy sales volume. BC Hydro agreed to this limited change, and by letter dated 30 May 2008, preliminarily set Celgar's GBL at 349 GWh/year — the level of Celgar's total load from the most recently completed calendar year, 2007.<sup>376</sup>

301. This was still a net-of-load GBL, albeit one that was static rather than dynamic. And, as 2007 was the first year in which Project Blue Goose was operational, it reflected Celgar's highest one-year load to date, and Celgar's highest one-year level of electricity generation to date.

302. As Brian Merwin explains, Celgar continued to express its objection to a net-of-load GBL:

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

Customers 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. Customers must provide data required by BC Hydro to determine the Customer's GBL for the applicable industrial facility or facilities.

Project Type . . . New self-generation, or incremental self-generation, in any event excess of the Customer's GBL at a Customer's facility to serve the Customer's industrial load at the facility (*i.e.* load displacement) and/or effect net energy export to the System (*i.e.* Customer Projects), but excluding generation projects, where the current output is under contract through a load displacement or demand side management agreement with BC Hydro.

C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009), app. A Request for Proposals (6 February 2008) at 6-7 of 36.

<sup>376</sup> C-248, Letter from BC Hydro RFP Administrator to Brian Merwin (30 May 2008).

(1) BC Hydro was using our highest load and generation year ever. 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.

(2) 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.

(3) 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 load, not Celgar's. A similar situation existed with respect to an oxygen plant that had recently located at the Celgar site. The oxygen plant was connected directly into Celgar's electrical system, and Celgar provided electricity at cost to them.<sup>377</sup>

303. Despite its objections, Celgar considered its assigned GBL a necessary means to an end. Simply put, BC Hydro's RFP process did not permit Celgar to submit a bid without the assigned GBL. Nonetheless, Celgar understood that the GBL calculation could be revisited if its bid were successful.<sup>378</sup>

304. In May 2008, Mercer's Board of Directors gave full approval to execute the Green Energy Project, with a planned investment of C\$ 55.5 million.<sup>379</sup> Notably, at this point, Celgar had no signed energy sales agreement with BC Hydro or anyone else. Celgar hoped that BC Hydro would accept its bid, and that Celgar would be able to sell the incremental electricity generated through the Green Energy Project to BC Hydro. [REDACTED]

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<sup>377</sup> Merwin Witness Statement, ¶ 91.

<sup>378</sup> Merwin Witness Statement, ¶ 92.

<sup>379</sup> Merwin Witness Statement, ¶ 113. The project cost for the Green Energy Project ultimately totaled C\$ 64 million, with C\$ 46.8 million subsidized by the Federal Canadian Government through its Pulp and Paper Green Transformation Program. See Merwin Witness Statement, ¶ 113.



[REDACTED]

[REDACTED]<sup>380</sup>

305. In June 2008, Celgar submitted its project proposal in response to BC Hydro’s Bioenergy Phase I call. Celgar’s was one of 20 project proposals BC Hydro received.<sup>381</sup> As discussed above, BC Hydro negotiated with the lowest cost bidders, which included Celgar.<sup>382</sup>

*f. The 2008-09 Recession*

306. When the economic recession hit in the second half of 2008 (“Recession”), pulp prices plummeted,<sup>383</sup> and [REDACTED]

[REDACTED]

[REDACTED] Celgar was hurt not only by rapidly declining prices, [REDACTED] This was largely due to the bankruptcy and closure of the Pope & Talbot sawmills in the last quarter of 2007; Pope & Talbot historically had supplied Celgar’s with its lowest cost wood chips.<sup>386</sup> [REDACTED]

<sup>380</sup> Merwin Witness Statement, ¶¶ 101, 103.

<sup>381</sup> See C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009) at 2, 10.

<sup>382</sup> See C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009) at 2, 14.

<sup>383</sup> See *supra* Section II.B.4.c and Figure 6; see also Kaczmarek Expert Report, ¶ 34.

<sup>384</sup> Merwin Witness Statement, ¶ 61–62.

<sup>385</sup> Merwin Witness Statement, ¶ 95.

<sup>386</sup> See Merwin Witness Statement, ¶ 62 n. 33 (“One Pope & Talbot mill is located adjacent to the Celgar Mill and is connected to the Celgar mill via a chip belt. The other Pope & Talbot mill is located in Grand Forts, which is 97 kilometres away.”).

[REDACTED]

[REDACTED]<sup>387</sup>

307. Despite Celgar's continuing losses, Mercer made the strategic business decision not to shut the Mill.<sup>388</sup> [REDACTED]

[REDACTED]

[REDACTED]

308. [REDACTED]

[REDACTED]

[REDACTED] As Brian Merwin explains,

Deciding whether to shut down an asset includes considerations such as where your operation sits on the cost curve compared to competitor mills. As such, if your mill is the low cost producer, your mill does not lose as much as your competitors, and your competitors will likely shut down before your mill. Once competitors shut down, the commodity price for pulp has the potential to improve. Also, if the competitors that shut down are located in the same area, the regional supply of wood chip improves, allowing for a plant to improve its variable costs to stem some of the losses.<sup>389</sup>

309. In 2008, Celgar was the dominant mill in BC, as it typically had the lowest production costs. Mercer had expected other mills to shut down once the recession hit, and indeed they did. The Tembec Skookumchuck and Catalyst Crofton kraft pulp mills shutdown for several months during this period.<sup>390</sup>

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<sup>387</sup> The recession had hit the U.S. housing sector particularly hard, and new housing starts in the U.S. dropped dramatically. Fewer housing starts meant reduced demand for lumber imports from Canada, causing many Canadian sawmills to shutdown and reducing the supply of wood chips available to the Canadian pulp and paper industry. *See* Merwin Witness Statement, ¶ 61.

<sup>388</sup> Merwin Witness Statement, ¶ 97.

<sup>389</sup> Merwin Witness Statement, ¶ 99.

<sup>390</sup> Merwin Witness Statement, ¶ 100.

310. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]<sup>391</sup>

311. [REDACTED]  
[REDACTED]<sup>392</sup> But by May 2009, with [REDACTED]  
[REDACTED]  
[REDACTED] Mercer decided to suspend all spending on the project until it could  
obtain financing.<sup>393</sup> Naturally, had Celgar

[REDACTED]

312. Fortunately, in June 2009, Canada announced the Pulp and Paper Green Transformation Program (PPGTP), which, as previously noted, provided financing for pulp mills

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<sup>391</sup> See Gandossi Witness Statement, ¶¶ 45, 49.

<sup>392</sup> Gandossi Witness Statement, ¶ 47.

<sup>393</sup> Gandossi Witness Statement, ¶ 48.

<sup>394</sup> Gandossi Witness Statement, ¶ 52.

across Canada for green energy projects, based on levels of black liquor production.<sup>395</sup> In early October 2009, Natural Resources Canada notified Celgar that the Mill had been allocated approximately C\$ 57.7 million in credits under the PPGTP.

313. In November 2009, Celgar entered into a non-repayable Contribution Agreement with Natural Resources Canada, whereby Natural Resources Canada agreed to provide approximately C\$ 40.0 million in grants (of the allocated C\$ 57.7 million) towards certain costs associated with the Celgar Energy Project.<sup>396</sup> Subsequently, Natural Resources Canada agreed to provide an additional C\$ 8.0 million pursuant to the terms of the Contribution Agreement.<sup>397</sup> With this assistance from the Pulp and Paper Green Transformation Program, by late 2009, Celgar was able to restart the Green Energy Project.<sup>398</sup> The total project cost for the Green Energy Project was C\$ 64 million, of which the Canadian federal government provided C\$ 46.8 million. Celgar completed its Green Energy Project by the end of September 2010.<sup>399</sup>

### **C. The Province's Regulatory Treatment of Celgar**

#### **1. BC Hydro's Application to the BCUC to Amend the 1993 FortisBC PPA**

314. As noted, in August 2008, FortisBC filed the signed Celgar-FortisBC Power Supply Agreement with the BCUC, and Celgar was preparing to move forward with its energy Arbitrage Project when that agreement became effective, which was expected to occur no later than January 1, 2009. On 16 September 2008, however, BC Hydro frustrated Celgar's efforts by

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<sup>395</sup> See C-75, *Pulp and Paper Green Transformation Program: Mission accomplished*, NRCAN.GC.CA, available at <http://www.nrcan.gc.ca/forests/federal-programs/13141>; Gandossi Witness Statement, ¶ 51.

<sup>396</sup> Merwin Witness Statement, ¶ 112.

<sup>397</sup> Merwin Witness Statement, ¶ 112.

<sup>398</sup> Merwin Witness Statement, ¶ 112.

<sup>399</sup> Merwin Witness Statement, ¶ 113.

filing an application with the BCUC to amend the 1993 Power Purchase Agreement between BC Hydro and FortisBC.

315. The 1993 PPA contained no restrictions on FortisBC's use of electricity purchases from BC Hydro to supply self-generators in its service territory. Section 2.1 of the 1993 PPA simply prohibited FortisBC from exporting PPA electricity.<sup>400</sup> BC Hydro sought to modify the language so as to place self-generators in FortisBC's service territory on a "net-of-load" standard, such that FortisBC could provide them no access to electricity FortisBC obtained under the PPA while they were selling self-generated electricity.<sup>401</sup> BC Hydro claimed to be seeking a "clarification" of the 1993 PPA rather than a modification.<sup>402</sup>

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<sup>400</sup> C-147, BC Hydro Final Argument, *Application to Amend Section 2.1 of the Rate Schedule 3808 Power Purchase Agreement* (16 January 2009) at 7-8; C-162, BC Hydro Application for Approval of New Power Purchase Agreement with FortisBC, app. I (24 May 2013), ¶ 2.1 (unofficial version of 1993 PPA).

1.<sup>401</sup> BC Hydro set forth its amendment request as follows:

BC Hydro seeks approval to add conditions to section 2.1 of the PPA that prohibit FortisBC (formerly West Kootenay Power) from reselling PPA purchases to customers with self-generation who wish to displace their self-generation with utility service for the purpose of selling their self-generation to market. Specifically, BC Hydro seeks approval to replace the existing section 2.1 of the EPA with the following new section 2.1:

"The Electricity purchased under this Agreement is solely for the purpose of supplementing FortisBC's resources to enable it to meet its service area load requirements and,

(a) shall not be Exported or stored, provided that nothing contained herein shall prohibit FortisBC from storing its entitlement resources in its entitlement account pursuant to the Canal Plant Agreement; and

(b) shall not be sold to any FortisBC customer that is selling self-generated electricity which is not in excess of its load.

For greater certainty, paragraph (b) above is to prevent FortisBC self-generating customers from arbitraging between PPA embedded-cost electricity and market prices."

[FOOTNOTE CONTINUED ON NEXT PAGE]

316. BC Hydro was reacting not only to the 2008 Celgar-FortisBC Power Supply Agreement, but also to actions taken around the same time by the City of Nelson, also a customer of FortisBC, to begin exports of its self-generated electricity.<sup>403</sup>

317. BC Hydro claimed that FortisBC's undertakings with these self-generating customers would result in increased electricity purchases by FortisBC from BC Hydro under the 1993 PPA. Such power purchase increases, BC Hydro argued, would harm BC Hydro's other customers. BC Hydro argued that increases in FortisBC's purchases under the PPA would lead to incremental expenses for BC Hydro and necessary rate increases for all customers.<sup>404</sup> BC Hydro also contended that the arbitrage in which FortisBC self-generators would be able to engage would contravene BCUC Order G-38-01. Specifically, BC Hydro argued that BCUC Order G-38-01 "is an order of general application to BC Hydro with respect to all of its industrial

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

C-222, Letter from Joanna Sofield, Chief Regulatory Officer, BC Hydro, to Erica M. Hamilton, Commission Secretary, BCUC (16 September 2008) ("BC Hydro Request to Amend 1993 Power Purchase Agreement") at 5.

<sup>402</sup> C-222, BC Hydro Request to Amend 1993 Power Purchase Agreement at 5; C-147, BC Hydro Final Argument, *Application to Amend Section 2.1 of the Rate Schedule 3808 Power Purchase Agreement* (16 January 2009) at 6.

<sup>403</sup> See Switlishoff Expert Statement, ¶ 61.

<sup>404</sup> See C-222, BC Hydro Request to Amend 1993 Power Purchase Agreement, at 4 ("BC Hydro and its ratepayers should not be required to incur incremental costs to support the City of Nelson's arbitrage activities and potential arbitrage opportunities of other FortisBC customers with self-generation."); C-147, BC Hydro Final Argument, *Application to Amend Section 2.1 of the Rate Schedule 3808 Power Purchase Agreement* (16 January 2009) ("BC Hydro has estimated . . . that the potential cost to BC Hydro ratepayers could be roughly \$16.7 million per year, assuming annual sales by the City of Nelson of 28 GWh and Zellstoff Celgar of 350 GWh (and therefore 378 GWh of increased purchases by FortisBC under the PPA). An incremental expense of C\$ 16.7 million/year to BC Hydro would result in a rate increase for all customers, including FortisBC under RS 3808, of approximately 0.6 per cent. The potential cost to BC Hydro and its ratepayers could be much greater, or lower, than that estimate depending on the actual amount of incremental purchases under the PPA to replace exported electricity and the actual cost to BC Hydro of acquiring that incremental electricity.")

customers with idle self-generation. It clearly is not an order to FortisBC, but in BC Hydro's opinion the principles of the order continue to be valid and the BCUC should apply them to FortisBC and its customers."<sup>405</sup>

318. For reasons it has never adequately explained, however, BC Hydro did not seek to apply the same Order G-38-01 historical usage standards it applied to *its own* self-generation customers to FortisBC's self-generation customers. Whereas the historical usage standard enabled BC Hydro customers to engage in some arbitrage, the more restrictive net-of-load standard it advocated for FortisBC customers would disallow arbitrage completely. Under BC Hydro's proposal, no self-generator in FortisBC's territory could access PPA electricity while it was selling *any* electricity.

319. The BC MEM intervened in the proceedings to support BC Hydro's request to amend the 1993 PPA. MEM's arguments in favor of an amendment were twofold: (1) it did not think it was appropriate for self-generating customers to profit from arbitrage between low cost utility-supplied power and market prices, when that profit is not shared with other BC ratepayers, and (2) allowing FortisBC to supply its self-generating customers with replacement energy (which would include energy purchased from BC Hydro under the 1993 Power Purchase Agreement) might lead to an increase in rates for BC Hydro and FortisBC customers.<sup>406</sup>

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<sup>405</sup> C-222, BC Hydro Request to Amend 1993 Power Purchase Agreement, at 4. BC Hydro characterized the principles underlying BCUC Order G-38-01 thusly: "BC Hydro's industrial customers should be able to sell their self-generated electricity to the market only if it is in excess to the customer's needs and provided that the customer does not arbitrage between embedded cost utility service and market prices." C-222, BC Hydro Request to Amend 1993 Power Purchase Agreement, at 3. But this characterization was inaccurate, as Order G-38-01 did not prohibit arbitrage, it only prohibited arbitrage requiring increased access to BC Hydro power.

<sup>406</sup> See C-6, Final Argument of MEM, *In the Matter of British Columbia Hydro and Power Authority and Power Authority and Application to Amend Section 2.1 of Rate Schedule 3808 Power Purchase Agreement* (23 January 2009), ¶¶ 10-11.

320. Like BC Hydro, MEM nowhere addressed the different regulatory standard it was advocating for FortisBC self-generators than applied to BC Hydro self-generators. MEM did not even acknowledge that the very negative impacts from arbitrage it ostensibly was seeking to prevent were accepted practice to some extent in BC Hydro's service territory.

321. BC Hydro's request to amend the 1993 PPA was intended to quash the Celgar-FortisBC 2008 Power Supply Agreement, and it succeeded. At the end of September 2008, the BCUC asked FortisBC to withdraw the filing of its Power Supply Agreement with Celgar, until after the 1993 Power Purchase Agreement proceedings initiated by BC Hydro had concluded, which FortisBC did.<sup>407</sup> Despite this withdrawal, FortisBC continued to support its agreement with Celgar throughout the proceedings before the BCUC, arguing against BC Hydro's request to amend the 1993 PPA, and supporting Celgar's desire to access embedded cost power while Celgar sold its self-generated electricity to third parties.<sup>408</sup>

## **2. Celgar's January 2009 EPA with BC Hydro**

322. While the G-48-09 proceeding was pending, Celgar, having been selected by BC Hydro as one of the four successful bidders in the Bioenergy Phase I call, was in the process of negotiating an EPA with BC Hydro. The negotiations, held from August to November 2008, were difficult, primarily because BC Hydro continued to insist on a net-of-load based GBL —

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<sup>407</sup> Merwin Witness Statement, ¶ 75.

<sup>408</sup> Merwin Witness Statement, ¶ 75; C-273 - Final Submission of FortisBC, *In the Matter of British Columbia Hydro and Power Authority and Power Authority and Application to Amend Section 2.1 of Rate Schedule 3808 Power Purchase Agreement* (23 January 2009), ¶¶ 63, 79.



the annual GBL of 349 GWh/year, tied to Celgar’s 2007 total load — that it had assigned to Celgar during the bidding process.<sup>409</sup>

323. Celgar pointed to the inequity and arbitrary nature of this net-of-load based GBL. BC Hydro was insisting that Celgar’s GBL be based on the one year of Celgar’s *highest ever load*, and the year of its highest ever annual electricity generation, and including fully the incremental electricity generation that had resulted from Celgar’s Project Blue Goose, whose first full year of operation was in 2007. Celgar continued to argue for alternative GBLs, including for BC Hydro to treat the additional electricity resulting from the Blue Goose Project as new or incremental, and not include this volume of incremental electricity generation in the GBL.

324. BC Hydro steadfastly refused to consider reducing Celgar’s GBL, refused to address Celgar’s arguments based on historical data, and insisted that Celgar’s GBL be net-of-load based. However, it never provided its reasons in writing. But, as a practical matter, BC Hydro had left itself little choice but to utilize a net-of-load based GBL for Celgar. Having requested that the BCUC amend the 1993 PPA effectively to hold Celgar and other self-generators in FortisBC’s service territory to a net-of-load standard, BC Hydro precluded itself from accepting a less restrictive GBL in its EPA with Celgar. BC Hydro could not take a position with Celgar that was inconsistent with the position it was advocating to the BCUC, and, if it succeeded before the BCUC, BC Hydro would not be able to implement an EPA or GBL that was inconsistent with the net-of-load standard it had obtained from the Commission.<sup>410</sup>

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<sup>409</sup> C-221, Electricity Purchase Agreement between BC Hydro and Celgar (27 January 2009) (“2009 Celgar EPA”), app. 1-1.

<sup>410</sup> As Mr. Switlshoff puts it, “From a procedural and practical standpoint, moreover, it is difficult to conceive that BC Hydro *could* have computed a GBL for Celgar using anything other

[FOOTNOTE CONTINUED ON NEXT PAGE]

325. When it became apparent that BC Hydro was unwilling to agree to any GBL other than one tied to Celgar’s 2007 load, Celgar accepted the net-of-load GBL, *but with the express understanding that the GBL would function only as the demarcation point above which BC Hydro would buy from Celgar.* Celgar would retain the right to sell its below-GBL self-generated electricity to third parties. As Brian Merwin notes, “Celgar accepted the net-of-load GBL, but with the express understanding that Celgar intended to sell to other parties that portion of our below-load self-generation that BC Hydro was not interested in buying. BC Hydro accepted this during the negotiations, and we finalized contract language reflecting agreement on this point in a provision which allowed Celgar to sell electricity below its load to third parties.”<sup>411</sup>

326. By early November 2008, BC Hydro and Celgar had finalized their EPA, and BC Hydro was preparing to submit the agreement to its board of directors on 19 November. This finalized agreement included the net-of-load GBL of 349 GWh, and provided that BC Hydro would only purchase from Celgar “Eligible Energy,” defined as energy generated above Celgar’s GBL.<sup>412</sup> The agreement also provided that Celgar would not sell energy to parties other than BC Hydro except “that portion of the Energy generated in any Season during the Term after COD

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

than the net-of-load standard defined by the BCUC in Order G-48-09. With that proceeding ongoing, BC Hydro would have undercut its position before the BCUC if it had agreed to a less than load GBL for Celgar, as Celgar would have pointed that out to the BCUC. Correspondingly, if BC Hydro had adopted a below-load GBL for Celgar, and then prevailed before the BCUC in the proceedings the resulted in Order G-48-09, it would not have been able to implement such GBL. BC Hydro had little choice but to apply a net-of-load GBL to Celgar, which is exactly what it did.” Switlishoff Expert Statement, ¶ 185.

<sup>411</sup> Merwin Witness Statement, ¶ 103.

<sup>412</sup> C-209, Electricity Purchase Agreement between BC Hydro and Celgar (Draft, 4 November 2008), app. 1-4 and app. 2.

{Commercial Operation Date} that is less than the Seasonal GBL.”<sup>413</sup> In other words, Celgar would sell all electricity generated above its GBL only to BC Hydro, *but the agreed-upon language explicitly permitted Celgar to sell electricity generated below its GBL to third parties.*

327. Just before it presented the EPA to its Board, however, BC Hydro contacted Celgar to insist on an amendment to the agreement that would prohibit Celgar from selling *any* below-GBL electricity to third parties.<sup>414</sup> The new language would read, in relevant part, as follows:

7.4 Exclusivity - ***The Seller shall not at any time during the Term commit, sell or deliver any Energy to any Person, other than the Buyer under this EPA, except:***

...

(b) that portion of the Energy generated in any Season during the Term after COD that is less than the Seasonal GBL, *and greater than the Mill Load, in each case, for that Season . . .*<sup>415</sup>

328. The effect of BC Hydro’s amendment was to convert the GBL from a demarcation point for BC Hydro’s purchase obligation, to an uncompensated load displacement obligation for Celgar that would last for the term of the EPA. The amendment prohibited below-GBL sales by Celgar to *any* person, except on a net-of-load basis.<sup>416</sup>

329. This was not the GBL arrangement that Celgar had agreed to, and Celgar refused to accept this last minute amendment. In turn, BC Hydro would not accept an EPA without the amendment. And the timing could not have been worse for Celgar. [REDACTED]

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<sup>413</sup> C-209, Electricity Purchase Agreement between BC Hydro and Celgar (Draft, 4 November 2008), § 7.4(b).

<sup>414</sup> Merwin Witness Statement, ¶ 104.

<sup>415</sup> C-221, 2009 Celgar EPA, § 7.4 (emphasis added).

<sup>416</sup> Celgar’s generation now is below its GBL but above its load only in rare instances when it is operating a generator but its pulp mill is not operating fully.

[REDACTED]  
[REDACTED]  
[REDACTED] Celgar simply did not have the bargaining power to move BC Hydro from its new position.<sup>417</sup>

330. To break the stalemate, Celgar and BC Hydro agreed to disagree on this point. The parties agreed to include BC Hydro's modified language in the EPA, on a conditional basis, subject to the terms of a side-letter agreement between Celgar and BC Hydro that would eliminate the restriction on below-GBL third-party sales if Celgar were to obtain an Order from the BCUC allowing it access to utility power other than on a net-of-load basis.<sup>418</sup> In other words, Celgar would be able to sell its below-load electricity if it prevailed against BC Hydro's attempt to amend the 1993 PPA, among other possibilities.

331. Specifically, the 2009 Side-Letter provided that Celgar's consent to the EPA was without prejudice to Celgar's right to take a position before the BCUC that: (1) FortisBC may supply electricity to Celgar to serve Celgar's Mill load in circumstances where Celgar sells self-generated electricity diverted from serving Mill load; (2) Celgar may sell such self-generated electricity in those circumstances; and (3) the subsection of the BC Hydro EPA that prohibits sales of energy by Celgar at levels below the Seasonal GBL shall have no force or effect.<sup>419</sup> The 2009 Side-Letter further provided that should the BCUC accept Celgar's position, Celgar and BC

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<sup>417</sup> See Merwin Witness Statement, ¶ 105.

<sup>418</sup> C-225, Letter Agreement between BC Hydro and Celgar (27 January 2009) ("2009 Side-Letter").

<sup>419</sup> C-225, 2009 Side-Letter, at 1-2.

Hydro would execute an agreement amending the EPA to include language allowing Celgar to sell below-GBL electricity to third parties.<sup>420</sup>

332. With the execution of the side-letter, the parties finally signed the EPA on 27 January 2009, and, on 17 February 2009, BC Hydro submitted it to the BCUC for approval. The EPA is for a 10-year term, and requires BC Hydro to purchase 238 GWh/year of firm energy from Celgar,<sup>421</sup> equivalent to the output expected from Celgar's Green Energy Project, as from the commercial operation date of that project.<sup>422</sup> The initial firm energy price ("FEP") price is

[REDACTED]<sup>423</sup>

333. Consistent with the "net-of load" standard BC Hydro had requested from the BCUC, the EPA contains a GBL of 349.0 GWh/year, equal to Celgar's most recent (2007) annual load.<sup>424</sup> It requires Celgar to self-supply its own load up to that level, and thereby provide load displacement services benefitting other FortisBC and BC Hydro ratepayers without compensation. It prohibits Celgar from selling below-load electricity to any party.<sup>425</sup>

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<sup>420</sup> C-225, 2009 Side-Letter, at 2.

<sup>421</sup> C-221, 2009 Celgar EPA, app. 2, Part II.

<sup>422</sup> C-221, 2009 Celgar EPA, §§ 5, 7.3.

<sup>423</sup> C-221, 2009 Celgar EPA, app. 3, §§ 3.1 - 3.2.

<sup>424</sup> The EPA applies four seasonal GBLs (rather than daily or annual), obligating Celgar to self-supply its load up to the seasonal GBL for that season. The sum of the seasonal GBLs is 349.0 GWh. *See* C-221, 2009 Celgar EPA, app. 2, Part II. There is no special seasonal shaping of Celgar's GBL.

[REDACTED] C-221, 2009 Celgar EPA, app. 2, Part II.

<sup>425</sup> C-221, 2009 Celgar EPA, § 7.4(b).

334. The BCUC ultimately approved the BC Hydro-Celgar EPA on 31 July 2009,<sup>426</sup> but not before it approved BC Hydro's request to amend the 1993 PPA, thereby also imposing a net-of-load standard on Celgar.

### **3. BCUC Order No. G-48-09 (May 2009)**

335. The BCUC granted in full BC Hydro's request to amend the 1993 PPA with FortisBC, in Order G-48-09, which it issued on 6 May 2009.<sup>427</sup> The Commission adopted BC Hydro's proposed modifications without substantive change, although it rejected BC Hydro's characterization of the modifications as a "clarification" and expressly noted that it was changing the terms of the agreement.<sup>428</sup> Order G-48-09 thus amended the 1993 PPA to prohibit FortisBC from selling any PPA power to any customer while the customer is selling self-generated electricity.

336. The Commission also expanded upon BC Hydro's request, establishing and defining a "net-of-load" regulatory standard, and applying it to FortisBC self-generators. This new standard effectively prohibited self-generators in FortisBC's service territory from accessing *all* embedded cost utility electricity, whether from BC Hydro or from FortisBC, while also selling electricity, even though the BCUC had, in Order G-38-01, allowed such access, and the simultaneous purchase and sale of electricity by a self-generator in BC Hydro's service territory, under a less restrictive "historical usage" regulatory standard.<sup>429</sup> The BCUC stated specifically:

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<sup>426</sup> C-226, BCUC, Order Number E-08-09 (31 July 2009).

<sup>427</sup> C-7, BCUC, Order Number G-48-09 (6 May 2009) at 1-2 ("BCUC Order G-48-09").

<sup>428</sup> C-8, BCUC, Decision Accompanying Order Number G-48-09 (6 May 2009) at 19 ("G-48-09 Decision").

<sup>429</sup> Switlishoff Expert Statement, ¶ 65.

What will not be permitted is the supply of embedded cost power to service the domestic load, at any time when the self-generator is selling power into the market.<sup>430</sup>

337. As Mr. Switlishoff explains,

the BCUC put structure to the outcome which had been implicit in BC Hydro's request. Although BC Hydro had purported to seek only a restriction on FortisBC's resale of PPA power, such a restriction was intended to prevent an increase in power purchased from BC Hydro in response to a self-generator taking its generation to market rather than using it to serve its own load. The restriction BC Hydro had requested would have been ineffective and, indeed, meaningless unless the same restriction also was applied to FortisBC's sales of its own generated power. Whether FortisBC nominally supplied Celgar's load from PPA power or from its own resource stack, the overall effect on BC Hydro's system would have been the same. FortisBC would need additional power to supply Celgar's load, and diverting power to Celgar from its own resources would still have left a gap to fill for the customers previously served by those resources.<sup>431</sup>

338. The Order not only restricted Celgar to net-of-load access to embedded cost utility electricity, but also it had the effect of nullifying for the time being Celgar's 2009 Side-Letter. Because the Commission ruled that Celgar could not access power from FortisBC while selling power, Order G-48-09 had the effect of making the GBL restrictions in the EPA prohibiting below-GBL sales to third-parties fully effective.

339. In its Reasons Accompanying the Decision, the Commission determined it should extend the principles set out in Order G-38-01 to FortisBC and its customers,<sup>432</sup> acknowledging at least implicitly that those principles had not applied to FortisBC previously. Nonetheless, without explanation, the Order failed to apply Order G-38-01's historical usage standard to

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<sup>430</sup> C-8, G-48-09 Decision, at 29.

<sup>431</sup> Switlishoff Expert Statement, ¶ 66.

<sup>432</sup> C-8, BCUC Order G-48-09, at 22 ("The Panel is of the view that the general principles enunciated in Order G-38-01 ought to be extended to customers of FortisBC.").

FortisBC and its customers, instead applying the more restrictive net-of-load standard.<sup>433</sup> As Mr. Switlishoff explains, “Order G-48-09 muddled the dividing line between the types of self-generator activities the BCUC would permit and the types that it regarded to be impermissible. Seemingly, the BCUC had prohibited conduct in FortisBC’s service territory that it had permitted in both BC Hydro’s service territory and in the City of Kelowna’s service territory . . . .”<sup>434</sup>

340. The historical usage GBL standard allows a self-generator to continue its purchases of embedded cost utility power at its historical levels, when selling self-generated electricity. The “net-of-load “ standard is more restrictive because it bars *all* purchases of embedded cost utility power while the self-generator also is selling power, regardless of its historical purchase levels.

341. Although nominally directed at FortisBC, the intent and effect of Order G-48-09 was to apply a different regulatory standard (net-of-load) to self-generators in FortisBC’s service territory than in BC Hydro’s service territory (where the historical usage standard applies). Effectively, Order G-48-09 denies Celgar access to *any* embedded cost utility power while

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<sup>433</sup> The Commission indeed noted the historical usage approach of Order G-38-01, and then simply stated, with no further explanation, “Generally, the Commission Panel believes that self-generators should be able to sell any self generated power that is not required by their base loads, and we would prefer to use the term ‘excess generated power’ to mean any power generated net-of-load on a dynamic basis.” C-7, BCUC Order G-48-09, at 28. The Commission further evaded any true discussion of its application of a different standard by stating, “Both “baseline” and “historical” are used in Order G-38-01. The Commission Panel believes that in any short term resolution of the policy issue addressed in this proceeding, there must be some definition for each self-generator of the historical baseline load served, or, in the alternative, some means of monitoring, on a dynamic basis, excess self-generation net-of-load. . . . As to the treatment of any new or incremental generation capacity added by a self-generator, the Commission Panel makes no determination. This issue can be dealt with in the future on a case by case basis.” C-7, BCUC Order G-48-09, at 29-30.

<sup>434</sup> Switlishoff Expert Statement, ¶ 67.



selling electricity, including not only power supplied by BC Hydro under the 1993 PPA, but also power generated by FortisBC from its own resource stack. As the Commission noted as recently as February 2014, “{a} s a FortisBC customer, Celgar is currently only able to sell its self-generation on a net of load basis.”<sup>435</sup> “This ‘net-of-load’ methodology is different than the GBL methodology approved for BC Hydro’s customers by Order G-38-01.”<sup>436</sup>

342. Because Celgar is the only pulp mill located in FortisBC’s service territory, the effect of Order G-48-09 is to treat Celgar more restrictively than any other BC pulp mill selling self-generated electricity, in terms of access to embedded cost utility power and the ability to sell below-load self-generated power. Of all pulp mills in the BC Province, the BCUC applies the “net-of-load” standard only to Celgar.

343. After the BCUC issued Order G-48-09, [REDACTED] [REDACTED] Celgar requested that FortisBC set a GBL for Celgar that was lower than the GBL BC Hydro had set. Celgar had hoped that such a GBL would be accepted by the BCUC — because FortisBC and not BC Hydro is Celgar’s supplying utility — and thus could be used by Celgar, under the 2009 Side-Letter to its EPA, to override the restrictions on its below-load sales to third parties. However, FortisBC rejected this request, [REDACTED]

[REDACTED]

344. [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

<sup>435</sup> C-168, BCUC, Order Number G-19-14 and Accompanying Decision (17 February 2014) at 4.

<sup>436</sup> C-168, BCUC, Order Number G-19-14 and Accompanying Decision (17 February 2014) at 21.

[REDACTED]

[REDACTED]

345. In FortisBC's communications with Celgar, FortisBC explained that, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] FortisBC also told Celgar that it lacked the regulatory mandate necessary to set GBLs, believing that GBL-setting was the province of BC Hydro alone.<sup>438</sup> FortisBC advised Celgar that in order to set a GBL for Celgar, it would need clear guidelines from the BCUC regarding the correct procedure for doing so.<sup>439</sup>

346. With its issuance of Order G-48-09 on 6 May 2009, and its approval of Celgar's EPA and its GBL provisions on 31 July 2009, the BCUC subjected Celgar to two separate and independent measures, each operating to eliminate Celgar's access to embedded cost utility electricity while selling its below-load electricity, and otherwise to prohibit Celgar from selling that below-load electricity to anyone.

#### **4. BCUC Order G-156-10 (19 October 2010)**

347. This left Celgar in a difficult competitive position. Celgar was one of the most efficient pulp mills in British Columbia, but it was becoming increasingly clear to Mercer that Celgar was being subject to unfair and unreasonable regulations and treatment that harmed its competitive position for no coherent reason. In February 2010, Celgar sought to ameliorate this situation by filing a request before the BCUC that it establish a non-net-of-load GBL for Celgar

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<sup>437</sup> Merwin Witness Statement, ¶ 121.

<sup>438</sup> Merwin Witness Statement, ¶ 121.

<sup>439</sup> Merwin Witness Statement, ¶ 121.

to access non-PPA FortisBC embedded cost electricity to serve the pulp mill load, and to permit Celgar to sell its self-generated electricity above the GBL.<sup>440</sup>

348. Celgar was unsuccessful. In its 19 October 2010 Order G-156-10 and accompanying decision, the BCUC refused Celgar's request for a GBL.<sup>441</sup> The BCUC considered, *inter alia*, that its Order G-48-09 preempted the issue, and that Celgar was subject to a net-of-load standard precluding any lesser GBL.<sup>442</sup> The BCUC also reaffirmed its prohibition on FortisBC purchasing BC Hydro power under the 1993 PPA if this power were intended for Celgar *while Celgar* was selling power.<sup>443</sup> Celgar received not only a denial of its request for a GBL, but also a decision by the BCUC that Celgar no longer could purchase electricity from FortisBC under the rate structure that Celgar had been using for the past years.

349. In the five years prior to Order G-156-10, Celgar had been purchasing its electricity from FortisBC in accordance with RS 33.<sup>444</sup> RS 33 rates are "time of use," the price of which varies depending on the time of day, the day, and the season the power was taken. The RS 33 tariff schedule reflects "all-in" prices that exclude any additional, up-front demand charges or ratchet charges. This all-in price structure was particularly valuable to Celgar at the

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<sup>440</sup> C-10, BCUC, Decision Accompanying Order Number G-156-10 (19 October 2010) ("Decision Accompanying Order G-156-10") at 2. Celgar submitted its request for a GBL within the proceedings concerning FortisBC's 2009 Rate Design and Cost of Service Analysis Application to the BCUC.

<sup>441</sup> C-10, Decision Accompanying Order G-156-10, at 115.

<sup>442</sup> C-10, Decision Accompanying Order G-156-10, at 2, 103, 115-116.

<sup>443</sup> C-10, Decision Accompanying Order G-156-10, at 103 ("The Commission Panel considers that what Celgar proposes is expressly prohibited by Order G-48-09 and that, as long as the Order is in full force and effect, and as long as the PPA between FortisBC and BC Hydro is in effect, FortisBC will be unable to buy any power from BC Hydro under RS3808 for sale to Celgar when Celgar is exporting power from the mill.")

<sup>444</sup> C-10, Decision Accompanying Order G-156-10, at 67.

time because it was able to purchase FortisBC power mainly for those occasional periods when its self-generated power was unavailable as a result of recovery boiler or generator maintenance or interruptions, without incurring a ratchet charge.<sup>445</sup>

350. However, in Order G-156-10, the BCUC ruled that FortisBC was no longer permitted to sell power to Celgar under RS 33. Instead, the Commission ordered FortisBC to provide service to Celgar under a different and highly disadvantageous tariff structure, RS 31, effective 5 January 2011.<sup>446</sup>

351. As detailed above, RS 31 is FortisBC's firm service tariff, and it includes two demand charges, with ratchet charges, tied to the peak demand Celgar imposes in any billing period. Firm service is appropriate for industrial customers that place continuous loads on the system, but inappropriate for users like Celgar that need power only on a standby basis. An essentially self-sufficient enterprise that only occasionally needed to turn to FortisBC for power — but, by necessity, when it did need power, it was needed in large amounts — Celgar was now being forced to pay for continuous demand access to power that it would use only rarely. This demand ratchet greatly increased Celgar's costs over what it had paid under RS 33. As Brian Merwin explains, "After the BCUC ordered this switch from Rate Schedule 33 to Rate Schedule 31, Celgar's annual electric bill increased dramatically from around [REDACTED] [REDACTED]

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<sup>445</sup> See Switlischoff Expert Statement, ¶ 75.

<sup>446</sup> C-9, BCUC, Order Number G-156-10 (19 October 2010) at 4 ¶8 ("Celgar is ineligible to take service under RS 33. FortisBC is directed to provide Celgar service under RS 31 effective January 2, 2011.").

<sup>447</sup> Merwin Witness Statement, ¶ 133.

352. In Celgar’s specific context, RS 31’s steep ratcheted demand charge is particularly unfair and, indeed, punitive. By regulatory action — action applied to no other pulp mill — the BCUC has forced Celgar to self-supply its own load before it can sell any power. As a result, the BCUC has prohibited Celgar from using FortisBC to supply its mill load on a continuous, firm basis. If Celgar were afforded such access, the demand charge and ratchet would be perfectly appropriate, as Celgar would be paying for the firm service it wanted, and it would have access to, and actually use, such energy on a 24x7 basis. Instead of paying a high demand charge for a peak demand it would use regularly, Celgar must pay the same high demand charge for a demand it imposes on the system rarely.

#### **5. BCUC Order G-188-11 (14 November 2011)**

353. Celgar next filed a complaint with the BCUC in March 2011, relating to its inability to conclude a new general service agreement with FortisBC, and to the punitive nature of the ratcheted demand charges associated with RS 31, as FortisBC had failed to develop a proposal for a standby rate.<sup>448</sup> The BCUC dismissed Celgar’s complaint, and the resulting decision — far from granting Celgar any relief from the regulatory uncertainty it faced — increased that uncertainty.

354. The BCUC backed away from the absoluteness of Order G-48-09, and ruled that Celgar had an entitlement to “some” embedded cost power from FortisBC, while it was selling self-generated electricity.<sup>449</sup> The Commission characterized this change from Order G-48-09 as a “clarification.”<sup>450</sup> However, as detailed above, the Commission in its Reasons accompanying

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<sup>448</sup> C-14, Decision G-188-11, at 3-4.

<sup>449</sup> C-14, Decision G-188-11, at 2, 38.

<sup>450</sup> C-14, Decision G-188-11, at 37-38.

Order G-48-09, had not distinguished between PPA embedded cost power and FortisBC own resource embedded cost power. To the contrary, it had stated explicitly that “{w}hat will not be permitted is the supply of embedded cost power to service the domestic load, at any time when the self-generator is selling power into the market.”<sup>451</sup> Moreover, the Commission has never explained, in any decision, why a self-generator’s access to embedded cost electricity should depend on which utility generates it.

355. The BCUC directed FortisBC to design by 31 March 2012 a “standby rate” schedule akin to that employed by BC Hydro with its own self-generating customers.<sup>452</sup> As detailed above, BC Hydro provides standby, non-firm service under RS 1880, which contains an energy charge but no demand charges. The BC Hydro standby rate allows that maximum demands set during short term periods when a customer’s generator is not generating (for instance, during process upsets or equipment malfunctions) without a demand charge.<sup>453</sup> The BCUC nonetheless directed that, in the interim, while it was awaiting a FortisBC standby rate, Celgar would remain subject to the highly disadvantageous FortisBC firm service RS 31, with its demand charges and ratchet, as of 15 March 2011.<sup>454</sup> And, as of the date of this filing, over 3.5 years later, no FortisBC standby rate has yet to be implemented.

356. The Commission also ruled that FortisBC could incorporate a GBL into a general service agreement with Celgar, and directed FortisBC to develop a rate for self-generators that reflected FortisBC’s resource stack excluding 1993 PPA power, to be used in place of RS 31.

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<sup>451</sup> C-8, G-48-09 Decision, at 29.

<sup>452</sup> See, C-13, BCUC, Order Number G-188-11 (14 November 2011) at 2, 6; C-227, BCUC, Order Number G-202-12 and Accompanying Decision (27 December 2012) (“BCUC Decision Accompanying Order G-202-12”) at 15.

<sup>453</sup> See Switlischoff Expert Statement, ¶ 224.

<sup>454</sup> C-14, Decision G-188-11, at 18.

With respect to the rate that FortisBC was to develop in order to exclude 1993 PPA power, the BCUC directed FortisBC to submit a report for Commission approval by March 31, 2012, “to establish a methodology for notionally matching sales to Celgar in service of its load when Celgar is selling power, to FortisBC’s energy supplied from its resource stack of non-BC Hydro PPA Power.”<sup>455</sup>

## **6. BCUC Order G-202-12 (27 December 2012)**

357. FortisBC submitted its requested report on a notional matching methodology to the BCUC on 13 April 2012.<sup>456</sup> On 27 December 2012, the BCUC issued Order G-202-12, approving FortisBC’s methodology.<sup>457</sup>

358. In its G-202-12 Decision, the Commission concluded that Celgar was entitled to have FortisBC serve 100 percent of its load with embedded cost power, as long as that embedded

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<sup>455</sup> C-14, Decision G-188-11, at 2. The idea of “matching” purchases had originated with Celgar, which had proposed that “FortisBC secur{e} additional energy supply from non-3808 sources, which is then notionally earmarked for servicing Celgar’s load” as a means of complying with restrictions on FortisBC’s use to PPA power to supply Celgar. C-148, Final Submissions of Celgar, *Celgar Complaint Regarding Failure of FortisBC and Celgar to Complete a General Service Agreement and FortisBC’s Application of Rate Schedule 31 Demand Charges* (15 August 2011) at 30. Celgar, however, had never proposed 100 percent matching, which would deny Celgar access to FortisBC hydroelectric and other resources. Rather, its idea had been to use matching purchases for a portion of the electricity supplied to Celgar, with such portion reflecting the proportionate share of PPA power in FortisBC’s total load. The idea was to replace that portion of electricity supplied to Celgar that reasonably could be deemed to have come from BC Hydro with electricity purchased from a third-party.

<sup>456</sup> See C-227, BCUC Decision Accompanying Order G-202-12, at 2–3.

<sup>457</sup> See C-227, BCUC Decision Accompanying Order G-202-12.

cost power excluded BC Hydro PPA power.<sup>458</sup> The type of embedded cost power to which Celgar was entitled was termed “non-BC Hydro PPA embedded cost power” or “NECP.”<sup>459</sup>

359. The notional matching methodology that FortisBC proposed and the Commission approved for providing Celgar with NECP was complex and potentially costly. To ensure that it was not supplying 1993 PPA power to Celgar, FortisBC would have to match notionally every block of power it sold to Celgar with an equal block of power purchased from a third-party. As the Commission explained: once a self-generating customer nominates the amount of its load it intends FortisBC to serve, FortisBC will purchase a matching block of firm electricity from any of three resources: “(1) BC Hydro (not PPA); (2) the Company’s owned generation (capacity) that would otherwise be expected to be surplus, provided the Company can demonstrate that the energy is not supplied by the BC Hydro PPA; or (3) the market.”<sup>460</sup>

360. Having accepted FortisBC’s proposed 100 percent notional matching methodology, the BCUC reiterated its directive from Order G-188-11, requiring FortisBC to file

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<sup>458</sup> C-227, BCUC Decision Accompanying Order G-202-12, at 8.

<sup>459</sup> See C-227, BCUC Decision Accompanying Order G-202-12, at 3, 8. The BCUC concluded the following:

The entitlement to non-BC Hydro PPA embedded cost power by a self-generating customer may be as high as 100 percent of load as nominated by that customer;  
and

FortisBC’s proposal that 100 percent of the customer nomination be matched from alternate sources or surplus FortisBC capacity is approved by the Commission as the methodology for notionally matching sales to self-generating customers in service of their load when they are selling power, to FortisBC’s non-BC Hydro PPA components of its resource stack.

<sup>460</sup> C-19, FortisBC Submission Regarding Non-PPA Power Entitlement (13 April 2012), at 10.



a replacement rate for RS 31, in the form of a two-tier stepped transmission rate and a standby rate, by 31 March 2013.<sup>461</sup>

361. On 28 March 2013, FortisBC filed an application seeking approval *inter alia*, for (1) a proposed stepped rate, named RS 34, (2) a proposed standby rate, named RS 37, and (3) a Non-Embedded Cost Power Rate Rider (“NECP Rate Rider”), which incorporated into one rate the entitlement principals and notional matching methodology contemplated in BCUC Orders G-188-11 and G-202-12.<sup>462</sup>

362. In its new rate application, FortisBC proposed a new stepped rate (functioning like BC Hydro’s two-tier stepped rate) for (1) large industrial customers that either had no self generation capacity, or (2) large industrial self-generating customers who meet their entire load.<sup>463</sup> Any large industrial customer with self-generating capacity that planned to purchase electricity from FortisBC prior to meeting its entire load would be subject to a surcharge termed the NECP Rate Rider, which FortisBC developed specifically to address the BCUC directive that FortisBC is precluded from selling any power that includes power purchased under the BC Hydro-FortisBC PPA to Celgar while Celgar is selling electricity.<sup>464</sup>

363. The principle behind the NECP Rate Rider is that FortisBC will charge Celgar for *all* incremental costs associated with the matching electricity purchases FortisBC must make to

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<sup>461</sup> C-227, BCUC Decision Accompanying Order G-202-12, at 15.

<sup>462</sup> See C-217, BCUC, Order Number G-18-14 (13 February 2014) at 2 (providing a summary of FortisBC new rate application).

<sup>463</sup> See C-218, FortisBC Application for Stepped and Stand-by Rates for Transmission Customers (28 March 2013) at 25-26.

<sup>464</sup> See C-218, FortisBC Application for Stepped and Stand-by Rates for Transmission Customers (28 March 2013) at 27.

supply Celgar with NECP.<sup>465</sup> This means that if the cost to FortisBC of acquiring blocks of power to match its deliveries to Celgar exceeds the average costs of its other resources, those additional costs would be borne by Celgar alone. Effectively — rather than charging Celgar traditional embedded cost rates, including the low costs associated with its hydroelectric plants — FortisBC would charge Celgar market rates for the entire amount of electricity it would purchase while selling electricity:

If a transmission customer elects to receive 100 GWh in each of the next two years from FortisBC to serve its load while exporting an equivalent amount of power, FortisBC will have to make a matching purchase for the entire amount. Assume, for example, that . . . this amount of power would be available under the PPA for an average cost of \$45/MWh. . . . If . . . the power was available for purchase from an eligible alternate source at \$55/MWh, a monthly rider of \$83,333 would be required over the two year life of the agreement . . . .<sup>466</sup>

364. The NECP Rate Rider would thereby likely render Celgar electricity sales to third parties at market rates uneconomic, and certainly far less profitable than the arbitrage sales in which BC Hydro self-generators are permitted to engage. Their purchases of utility power all are at traditional embedded cost rates, including the low costs of BC Hydro's Heritage Resources.

365. FortisBC specifically addressed the fact that the NECP Rate Rider was a Made-for-Celgar only rate. It explained that BCUC decisions had prompted FortisBC to single out Celgar for a special rate. FortisBC pointed to the following BCUC directives:

FortisBC will be unable to buy BC Hydro PPA Power *for sale to Celgar*, while Celgar is exporting power. While FortisBC may have access to BC Hydro PPA Power at all times, it is precluded from selling that power to Celgar when Celgar is selling power.

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<sup>465</sup> See C-218, FortisBC Application for Stepped and Stand-by Rates for Transmission Customers (28 March 2013) at 27.

<sup>466</sup> C-218, FortisBC Application for Stepped and Stand-by Rates for Transmission Customers (28 March 2013) at 28, § 8.2.

The conditions regarding FortisBC's access to BC Hydro PPA Power are clear: FortisBC will be unable to buy BC Hydro PPA Power *for sale to Celgar*, when Celgar is exporting power...

While FortisBC may have access to BC Hydro PPA Power at all times, it is precluded from selling that power to Celgar when Celgar is selling power. In other words, Celgar is prohibited from accessing BC Hydro PPA Power when Celgar is also selling power to any customer, either domestic or for export.<sup>467</sup>

366. FortisBC's new rate application finally also proposed a standby rate. However, FortisBC did not propose a rate like BC Hydro's non-firm standby rate, as the Commission had directed. Instead, the proposed standby rate was for *firm* standby service, and included a demand charge with a ratchet mechanism.<sup>468</sup>

367. Celgar — the only FortisBC customer to request standby service — does not need or want firm standby service. Celgar only needs standby service for scheduled or unplanned outages; at all other times, Celgar is able to meet its load. Celgar therefore has opposed FortisBC's firm standby service before the BCUC, and has proposed a non-firm standby rate in its place.

368. The proceedings to review FortisBC's new Made-for-Celgar rates remain pending. In fact, due to overlap between FortisBC's new rate application, and BC Hydro's May 2013 submission, discussed below, seeking approval of a new PPA between it and FortisBC (to replace the 1993 PPA), the BCUC has deferred any decisions regarding FortisBC's proposed stepped rate for self-generating customers, the NECP Rate Rider, and other issue until after the

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<sup>467</sup> See C-218, FortisBC Application for Stepped and Stand-by Rates for Transmission Customers (28 March 2013) at 7-8 (citing to BCUC Order G-188-11, pages 2 and 31) (emphasis in original).

<sup>468</sup> See C-218, FortisBC Application for Stepped and Stand-by Rates for Transmission Customers (28 March 2013) at 35 *et seq.*

Commission issues a final decision in the new PPA proceeding.<sup>469</sup> The one aspect of FortisBC's new rate application relevant to Celgar that the BCUC has not deferred — FortisBC's proposed standby rate — also remains pending.

## **7. Regulatory Indeterminacy**

369. In sum, the BCUC has subjected Celgar to a period of discrimination and regulatory uncertainty that began in 2009 and continues to this day. Since Order G-48-09 issued in May 2009, Celgar has been unable to access embedded cost utility electricity below its 2007 load, and thus has been unable to sell any of its below-load electricity. Rulings from the BCUC regarding Celgar's ostensible entitlement to embedded cost power have not changed the situation in the slightest, because FortisBC has not proposed to charge Celgar traditional embedded cost rates for the firm service Celgar would require to serve the load that Celgar has been meeting with its self-generation. In any event, the Commission has not yet ruled on the proposed rates. If the NECP Rate Rider is approved by the BCUC, the BCUC simply will have substituted one form of discrimination for another.

370. Without an approved rate, Celgar cannot explore or enter into long-term sales arrangements for its self-generated electricity, as it does not yet know the basis on which it will be charged for replacement electricity from FortisBC.<sup>470</sup> And it certainly has not yet been afforded access to such replacement electricity at embedded cost rates computed on the same basis as has been made available to all other pulp mills in the province through BC Hydro RS 1823. No other BC pulp mill is subject to notional matching, NECP Rate Riders, or anything like the Made-For-Celgar rate proposed by FortisBC.

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<sup>469</sup> See C-219, BCUC, Order Number G-12-14 (3 February 2014).

<sup>470</sup> Merwin Witness Statement, ¶ 135.

371. Equally important, as discussed above, and as Mr. Merwin confirms, the market for biomass-based green electricity that existed in 2008-2010 has changed significantly, and Mid-C reference prices have declined dramatically. In these circumstances, it is unlikely that Celgar could today enter into long-term arrangements near the price BC Hydro and other utilities were paying from 2008-2010 for long-term green energy sales.<sup>471</sup>

372. This continuing situation has hurt not only Celgar's competitive position in the BC pulp industry, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>472</sup>

## 8. Related Proceedings

### a. Proceedings Concerning Tolko's GBL

373. Following the issuance of Order G-48-09, Tolko, whose GBL the BCUC had established at 2 MW in 2001 under the historical usage standard, filed a request with the BCUC to reaffirm its GBL. In Order G-198-11 (1 December 2011), the Commission determined that Tolko, a self-generator purchasing its energy from the City of Kelowna, which is supplied by FortisBC, was not subject to the G-48-09 restrictions because it was not a direct customer of

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<sup>471</sup> Merwin Witness Statement, ¶ 135.

<sup>472</sup> Merwin Witness Statement, ¶ 166.

FortisBC.<sup>473</sup> Tolko was a customer of a customer. The BCUC did not explain why this distinction made any difference under its self-generator policy.

374. Tolko's circumstances changed when, in 2013, FortisBC sought to purchase the City of Kelowna's utility assets. On 22 November 2013, in Order G-191-13, involving the BCUC proceeding to approve that transaction, the Commission re-examined its prior orders granting and reaffirming Tolko's GBL. Circumstances had changed as Tolko was to be a direct self-generator customer of FortisBC, just like Celgar, yet it operated under a historical usage-based GBL while Celgar operated under a net-of-load-based GBL. Acting on a claim by Celgar of discrimination, the Commission determined that "a GBL which is less than a customer's load, other things equal, is not equivalent to the concept of net of load on a dynamic basis. The concept of net of load on a dynamic basis does not envision sales of energy which could be used to serve load at any time."<sup>474</sup> In light of these differences, the Commission further concluded that "FortisBC offering service on different bases to these two customers will constitute a situation of 'undue discrimination, preference, prejudice or disadvantage' in respect of this service, within the meaning of section 59(4)(b) of the Act."<sup>475</sup>

375. The Commission also reiterated 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."<sup>476</sup> This statement validates Celgar's 2007 attempts to address its self-generation issues with FortisBC, and confirms that Celgar had no reason to know it needed to deal with BC Hydro.

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<sup>473</sup> C-18, BCUC, Decision Accompanying Order Number G-198-11 (1 December 2011).

<sup>474</sup> C-21, *Kelowna Decision*, at 18.

<sup>475</sup> C-21, *Kelowna Decision*, at 21.

<sup>476</sup> C-21, *Kelowna Decision*, at 20.

b. *Pending Proceedings Concerning  
the 2013 BC Hydro-FortisBC  
Power Purchase Agreement*

376. The 1993 PPA between BC Hydro and FortisBC governing FortisBC's purchase of low-cost power from BC Hydro was set to expire 30 September 2013. In May 2013, BC Hydro submitted an application to the BCUC for approval of a new Power Purchase Agreement it had negotiated with FortisBC ("2013 PPA").<sup>477</sup> The newly proposed 2013 PPA does not change the basic terms of service; BC Hydro would continue to provide FortisBC with up to 200 MW of capacity and 1,752 GWh/year of associated energy.<sup>478</sup> The 2013 PPA also includes limitations on the ability of FortisBC's self-generating customers to access embedded cost utility power from FortisBC while selling self-generated electricity. But instead of the net-of-load standard established by BCUC Order G-48-09, the 2013 PPA restrictions — contained in Section 2.5 of the agreement — are based on historical usage-based GBLs for FortisBC's self-generating customers that are to be set by FortisBC and BC Hydro, applying BC Hydro's June 2012 GBL Guidelines.<sup>479</sup>

377. BC Hydro thus now proposes to abandon the discriminatory net-of-load standard the Commission imposed upon Celgar, at BC Hydro's request, in favor of the historical usage standard. This change of position came about only after Mercer filed this NAFTA case, and calls into question the basis for imposing a net-of-load standard at all.

378. Problems nonetheless remain with BC Hydro's proposed new approach, which would cut Celgar out of BC Hydro's GBL setting process entirely, and Celgar has challenged

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<sup>477</sup> C-162, BC Hydro Application for Approval of New PPA with FortisBC (24 May 2013).

<sup>478</sup> C-162, BC Hydro Application for Approval of New PPA with FortisBC (24 May 2013) at 4.

<sup>479</sup> C-162, BC Hydro Application for Approval of New PPA with FortisBC (24 May 2013) att. 1, page 13 of 38, Section 2.5, Purpose/Limitation of use of Scheduled Energy.

these new provisions. In a 13 December 2013 letter to the parties to the 2013 PPA Approval Proceeding, the BCUC likewise expressed concerns regarding the Section 2.5 GBL-based restrictions on self-generation customers.<sup>480</sup> The BCUC stated the following concerns, focused on the impropriety of BC Hydro and FortisBC setting GBLs for FortisBC self-generating customers with little to no input from the customers, and the vagueness and lack of transparency of BC Hydro's "GBL Guidelines":

Potential erosion in customer protection because the Generator Baseline (GBL) is to be established by BC Hydro and FortisBC while the self-generator customer is virtually excluded from having any meaningful input;

The GBL Guidelines set out in the 2012 Information Report, which are to be relied on in establishing GBLs, are fairly general, subject to considerable interpretation, not necessarily transparent and have not been approved by the Commission.<sup>481</sup>

379. The BCUC closed its letter to the parties by stating:

On the assumption that the Commission finds section 2.5 of the New PPA to be unjust unreasonable or unduly discriminatory because self-generator customers have no meaningful input in setting their GBL's for service in the FortisBC service territory, how can the Commission Panel approve the Application as just and reasonable under sections 58-61 of the Utilities Commission Act?<sup>482</sup>

380. This BCUC proceeding too remains pending.

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<sup>480</sup> C-229, Letter from Erica Hamilton, Commission Secretary, BCUC, to Janet Fraser, Chief Regulatory Officer, BC Hydro (13 December 2013).

<sup>481</sup> C-229, Letter from Erica Hamilton, Commission Secretary, BCUC, to Janet Fraser, Chief Regulatory Officer, BC Hydro (13 December 2013) at 1.

<sup>482</sup> C-229, Letter from Erica Hamilton, Commission Secretary, BCUC, to Janet Fraser, Chief Regulatory Officer, BC Hydro (13 December 2013) at 2.



c. Mercer's Approaches to the BC  
Government to Resolve the  
Dispute

381. Having failed to obtain relief from the BCUC for its claims of discriminatory and arbitrary treatment, Mercer approached the MEM seeking redress. Those efforts were equally futile.

382. Mercer approached the Ministry of Energy beginning in 2009 to discuss the methodology adopted by BC Hydro in establishing Celgar's GBL and the BCUC's G-48-09 Decision, establishing a net-of-load standard for FortisBC self-generators.<sup>483</sup> Mercer focused on the discriminatory nature of the treatment to which it was subject:

Celgar is at a significant disadvantage by the fact that it has to supply all of its electrical needs before being able to sell green power, while all of its BC Pulp competitors (all BC Hydro customers) are able or will be able to sell power while buying from BC Hydro.<sup>484</sup>

383. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

<sup>483</sup> C-230, Mercer, Briefing Note, Celgar Existing Generation (1 September 2009); C-231, Mercer, Briefing Note, Leveling the Playing Field - Briefing Note (26 October 2009).

<sup>484</sup> C-231, Mercer, Briefing Note, Leveling the Playing Field - Briefing Note (26 October 2009).

<sup>485</sup> C-231, Mercer, Briefing Note, Leveling the Playing Field - Briefing Note (26 October 2009) at 3.

[REDACTED]

384. Mercer's basic point was that [REDACTED]

[REDACTED]

385. [REDACTED]

[REDACTED]

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<sup>486</sup> C-231, Mercer, Briefing Note, Leveling the Playing Field - Briefing Note (26 October 2009) at 3.

<sup>487</sup> C-231, Mercer, Briefing Note, Leveling the Playing Field - Briefing Note (26 October 2009) at 6.

<sup>488</sup> C-231, Mercer, Briefing Note, Leveling the Playing Field - Briefing Note (26 October 2009) at 8.

<sup>489</sup> C-232, MEM and Ministry of Environment, Briefing Note for Information, 10:15 am November 24 Meeting with Honourable Pat Bell, Minister of Forests and Range, and Representatives of Mercer International Group Regarding Mercer's Self Generation at its Celgar Pulp and Paper Mill (23 November 2009).

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

386. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] The Ministry thus ignored Mercer's central claim of discriminatory treatment, and ignored the fact that other pulp mills were permitted to engage in the very arbitrage that the Ministry concluded would harm BC ratepayers.

387. On 22 February 2010, Minister Lekstrom sent a letter informing Mercer that he could not support Mercer's request to change its GBL. The letter identifies three reasons for that

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<sup>490</sup> C-232, MEM and Ministry of Environment, Briefing Note for Information, 10:15 am November 24 Meeting with Honourable Pat Bell, Minister of Forests and Range, and Representatives of Mercer International Group Regarding Mercer's Self Generation at its Celgar Pulp and Paper Mill (23 November 2009).

<sup>491</sup> See C-233, MEM, Briefing Note for Decision, Mercer International Group's request to establish a new, low generation baseline and increase electricity sales (11 January 2010).

<sup>492</sup> C-233, MEM, Briefing Note for Decision, Mercer International Group's request to establish a new, low generation baseline and increase electricity sales (11 January 2010).

position: (1) that “in every case, the BCUC ensures that self-generators are not in a position to engage in arbitrage (*i.e.*, that they are not able to profit by increasing their purchases of embedded-cost electricity from the utility and reselling the electricity at market prices”); (2) “that supporting {Mercer’s} request would result in an unacceptably high cost to utility ratepayers”; and (3) that Minister Lekstrom did not “view an adjustment to Mercer International’s current GBL as an appropriate means of addressing the distorted revenue-to-cost ratio identified in FortisBC’s 2009 Rate Design and Cost of Service application before the BCUC.”<sup>493</sup> Once again, MEM failed to confront Mercer’s claim of discriminatory treatment, including how the “no increased access” requirement of Order G-38-01 had been defined and applied differently for different pulp mills. At no point did the MEM engage in any analysis of how Celgar had been treated as compared to other pulp mills.

388. Mercer continued to engage in discussions with the MEM, but no relief was forthcoming. Mercer’s requests that its discriminatory treatment be remedied and that it be granted some access to embedded cost utility power while selling power were, on the whole, met with the nonresponsive refrain that such a move would allow arbitrage, which is harmful to BC ratepayers.<sup>494</sup>

389. In the end, after Mercer’s extensive outreach, the BC Government appears to have acknowledged at least internally and at least for a time that Celgar is being subject to treatment less favorable than its competitors, but it is unwilling to take corrective action because it believes there are no practical consequences to its inaction. Celgar installed all its generation without

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<sup>493</sup> C-234, Letter from Blair Lekstrom, Minister, MEM, to David Gandossi, Executive Vice President, Chief Financial Officer and Secretary, Mercer International, and Brian Merwin, Vice President, Strategic Initiatives, Mercer International (22 February 2010).

<sup>494</sup> Merwin Witness Statement, ¶¶ 130–31.

load displacement payments or assistance from the Province, and Celgar continues to generate at maximum levels, notwithstanding the treatment of which Mercer complains. From the Province's perspective, BC has nothing to gain in terms of additional electricity generation by providing Mercer with any relief.

**PART III: JURISDICTION**

**V. THE TRIBUNAL HAS JURISDICTION TO DECIDE MERCER'S CLAIMS**

390. As first set forth in its 30 April 2012 Request for Arbitration, and as detailed more fully below, Mercer raises two categories of claims arising from the provincial measures described above. These measures principally include (1) BCUC Order G-48-09, imposing a net-of-load standard upon Celgar and eliminating Celgar's access to embedded cost utility electricity while selling its self-generated electricity, and (2) BC Hydro's establishment of a load-based GBL for Celgar, through and including the GBL-related provisions of Celgar's 2009 EPA, and the BCUC's approval of these provisions.

391. First, Mercer raises claims under NAFTA Articles 1102, 1103, and 1503 for violations of Canada's national treatment and most favored nation obligations to afford Mercer and its investments treatment no less favorable than that afforded to Canadian and third-country investors and investments in like circumstances, with respect to access to embedded cost utility electricity while selling self-generated electricity. The actions of the Province, including the actions of the BCUC and the inaction of the MEM, give rise directly to claims under Article 1102 and 1103. The actions of BC Hydro, as a state enterprise, to the extent not approved and made effective by the BCUC, give rise to claims under Article 1503 for violations of Articles 1102 and 1103.

392. Mercer claims that while it has been afforded no access to embedded cost utility electricity while selling its own electricity, all other BC pulp mills have been provided some access, and thus are able to profit from buying relatively low-priced utility electricity at embedded cost rates to meet pulp mill load, while diverting self-generated biomass-based "green" electricity for sale at higher market prices. Mercer contends that BC Hydro and/or the

BCUC afforded Canadian and third-country investors and their investments in comparable BC pulp mills more favorable access, including through (i) payments or no-interest loans for load displacement services that were taken from Celgar without compensation, (ii) the application of different regulatory standards, and (iii) the discretionary application of different GBL-setting methodologies, calculations, and approaches.

393. Second, Mercer brings claims under NAFTA Article 1105 and 1503 for Canada's violations of the minimum standard of treatment, both by the Province (including the BCUC and the MEM) and by BC Hydro. Both in the result of disparate access to utility electricity at embedded cost rates, and in the BC Hydro and BCUC processes Mercer has undergone, Canada has subjected Mercer to arbitrary, grossly unfair, unjust, idiosyncratic, and non-transparent treatment in violation of the minimum standard of treatment, and thus has denied Mercer and its investment fundamental regulatory fairness.

394. The Tribunal has jurisdiction over the parties and the subject matter of these claims and thus this dispute.

**A. Jurisdiction Over the Parties**

395. NAFTA Articles 1116(1) and 1117(1) authorize an investor of a Party to submit claims "on its own behalf," and "on behalf of an enterprise of another Party that is a juridical person that the investor owns or controls directly or indirectly," respectively. These provisions authorize Claimant Mercer to bring claims both on its own behalf and on behalf of ZCL, as it has done.

**1. Mercer is an Investor of a Party and May Bring Claims against Canada on its Own Behalf**

396. As set forth above, Mercer was at all relevant times either a trust or corporation duly organized under the laws of Washington State in the United States.<sup>495</sup>

397. Mercer's qualifying investments in Canada include the Zellstoff Celgar Limited Corporation (ZCL) and the Zellstoff Celgar Limited Partnership (ZCLP), both organized under the laws of British Columbia.<sup>496</sup> As established above, Mercer directly owns all of the shares of ZCL, which shares entitle Mercer to share in the income and profits of that enterprise. As regards ZCLP, ZCL is the general partner and Mercer is the sole limited partner, which entitles Mercer to share in ZCLP's income and profits. Accordingly, Mercer qualifies as an investor of a NAFTA party and is thus authorized to submit claims on its own behalf.<sup>497</sup>

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<sup>495</sup> As set forth above, Mercer International Inc. remained a Washington state trust from its formation in 1968 until March 1, 2006, and a Washington state corporation in good standing continuously from that date through the present. It was a Washington corporation in good standing in 2009-2010, when the events giving rise to the claims transpired, and both on January 26, 2012, the date Mercer filed its notice of intent, and on April 30, 2012, the date it filed its request for arbitration.

<sup>496</sup> Although a partnership is not a juridical person under Canadian law, there is no NAFTA requirement that an "enterprise" be a juridical person to qualify as an "investment." Indeed, NAFTA Article 201 includes partnerships in its illustrative list of enterprise types.

<sup>497</sup> See C-1, North American Free Trade Agreement, U.S.-Can.-Mex., 17 December 1992, 32 ILM 289, 605 (1993), Art.1139 ("NAFTA") (defining "investor of a party" as including "a national or an enterprise of such party, that seeks to make, is making or has made an investment." Defining "investment" to include "an enterprise" or "an interest in an enterprise that entitles the owner to share in the income or profits of the enterprise," where "enterprise" is defined in Article 201."); NAFTA Article 201 (defining "enterprise" as any "**entity constituted or organized under applicable law**, whether or not for profit, and whether privately-owned or governmentally-owned, **including** any corporation, trust, **partnership**, sole proprietorship, joint venture or other association," and an enterprise of a party as "an enterprise constituted or organized under the law of a Party.")). (Emphasis added.)



**2. Mercer May Also Bring Claims on Behalf of ZCL**

398. NAFTA also authorizes Mercer to bring claims on behalf of ZCL — a British Columbia corporation, and thus, a juridical person that Mercer owns directly or indirectly, within the meaning of Article 1117(1). Because ZCLP is not a juridical person under Canadian law, Mercer is not bringing any claims directly on behalf of ZCLP.

**3. The Tribunal Has Jurisdiction over Canada**

399. The Tribunal has jurisdiction over Canada by virtue of NAFTA Articles 1116 and 1117, as well as Article 1122, which provides Canada’s affirmative consent to arbitration.

**B. The Tribunal has Jurisdiction Over the Subject Matter of the Dispute**

400. The Tribunal also has jurisdiction over the subject matter of this dispute, both with respect to measures adopted or maintained by the BC Government (including the BCUC) and with respect to measures adopted or maintained by BC Hydro.

401. It is necessary to analyze BC Hydro separately from other organs of the BC Government because of the interplay between NAFTA Chapters 15 (governing state enterprises and monopolies) and Chapter 11 (governing investments). As the NAFTA Tribunal noted in *United Parcel Service of America Inc. and Government of Canada*, Award on the Merits (24 May 2007) (“*UPS II*”):

- Chapter 11 and chapter 15 draw a clear distinction between the ‘Parties’, on the one side, and government and other monopolies and State enterprises, on the other. The governments which negotiated and agreed to NAFTA did not simply and directly apply the rather generally stated obligations of chapter 11 to government and other monopolies and to State enterprises as well as to themselves. Rather they elaborated a more detailed set of provisions about competition, monopolies and State enterprises and incorporated them in a distinct chapter (chapter 15) of the Agreement.

- The particular provisions of chapter 15 themselves distinguish in their operation between the Party on the one side and the monopoly or enterprise on the other. It is the Party which is to ensure that the monopolies or enterprises meet the Party's obligations stated in the prescribed circumstances. The obligations remain those of the State Party; they are not placed on the monopoly or enterprise.<sup>498</sup>

402. Because, as demonstrated below, BC Hydro meets Chapter 15's definitions of both a monopoly and a state enterprise, the *lex specialis* embodied in Chapters 11 and 15 governing the arbitrability of claims involving measures by monopolies and state enterprises applies rather than the more general rules of Chapter 11.<sup>499</sup>

403. A further distinction must be drawn between measures adopted or maintained by BC Hydro exclusively and measures to which BC Hydro may have contributed but ultimately were approved and made effective by the BCUC. For example, as noted above, BC Hydro initially established GBLs for Celgar and for other pulp mills in the Electricity Purchase Agreements and similar agreements it negotiated. Many but not all of these EPAs, including Celgar's, required BCUC approval before they could be made effective. In all cases in which the BCUC approved and made effective the EPA and its GBL-related provisions, the GBL-related

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<sup>498</sup> CA-16, *United Parcel Service of America Inc. v. Government of Canada* (NAFTA), UNCITRAL (Award, 24 May 2007) (Keith, Cass, Fortier) ("*UPS II* (NAFTA)"), ¶ 59.

<sup>499</sup> The principal measure of which Mercer complains concerns the Province's application to Mercer alone among pulp mills of a "net-of-load" standard governing its access to embedded cost utility electricity while selling self-generated electricity. This measure was imposed upon Mercer by a provincial regulatory agency, the BCUC, both through Order G-48-09 and its progeny and also through Order E-8-09, in which the Commission approved and thus gave legal effect to Celgar's 2009 EPA with BC Hydro and the GBL contained in that agreement. (Order G-48-09 also had the effect of nullifying the "side-letter" Mercer had negotiated with BC Hydro concerning the GBL Hydro had established for Mercer in its 2008 EPA, and thereby giving final effect to that GBL.) The BC Government, including the MEM, also played a role in imposing the measure by refusing to disturb the Commission's decisions and declining to exercise its power to issue directives to the Commission. In addition, actions of BC Hydro contributed to the measure and/or its discriminatory impact, or constituted independent measures, through BC Hydro's establishment of GBLs for Celgar and other pulp mills with self-generation who have sold electricity.

measures embodied in the EPA are not subject to the special provisions governing monopolies and state enterprises. The BCUC is an organ of the BC Government that is neither a monopoly nor a state enterprise. The Commission's actions in approving and, indeed, ratifying a GBL that could have no legal effect without its action, make such measures directly attributable to Canada as a NAFTA party, and remove Commission-approved GBLs originally established by BC Hydro from the scope of Chapter 15.

**1. Measures Adopted or Maintained  
By the BC Government**

404. Canada is responsible under NAFTA for the actions not only of its central, federal government, but also of its political subdivisions and territorial units, including the Province of British Columbia, and including all organs of the British Columbia government, whether it exercises legislative, executive, judicial, or other functions.<sup>500</sup>

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<sup>500</sup> See, e.g., CA-22, *Glamis Gold, Ltd. v. The United States of America* (NAFTA), UNCITRAL (Final Award, 8 June 2009) (Young, Caron, Hubbard) (“*Glamis Gold* (NAFTA)”) ¶ 30 (Indicating that pursuant to NAFTA Article 105, “the complained of measures, at both the federal and state levels of government, are considered as acts of State by Respondent and are thus both defended by Respondent.”); CA-23, *Metalclad Corp. v. United Mexican States* (NAFTA), ICSID Case No. ARB(AF)/97/1 (Award, 30 August 2000) (Lauterpacht, Civiletti, Siqueiros) (“*Metalclad* (NAFTA)”), ¶ 73. See also, CA-18, “Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries,” adopted by the International Law Commission, United Nations (“*ILC Articles*”), Article 4 (and the commentary to Article 4), and recognized as accepted propositions of customary international law by the International Court of Justice in CA-8, *Case Concerning Application of The Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v. Serbia and Montenegro)*, 2007 I.C.J. 43 (Judgment, 26 February 2007), ¶ 385. CA-18, *ILC Articles*, Article 4 provides that “The conduct of any State organ shall be considered an act of that State under international law, whether the organ exercises legislative, executive, judicial or any other functions, whatever position it holds in the organization of the State, and whatever its character as an organ of the central government or of a territorial unit of the State.” The commentary further provides in pertinent part that:

“(1) ... The reference to a “State organ” covers all the individual or collective entities which make up the organization of the State and act on its behalf. It

[FOOTNOTE CONTINUED ON NEXT PAGE]

405. Mercer’s claims with respect to actions taken by BC Government entities — other than BC Hydro — including the BCUC, the MEM, and other organs of the government that are not monopolies or state enterprises, concern Canada’s breach of obligations under NAFTA Articles 1102 (national treatment), 1103 (most-favored nation treatment), and 1105 (minimum standard of treatment). Mercer may bring these claims under NAFTA Articles 1116 and 1117.<sup>501</sup>

**2. Measures Adopted or Maintained By BC Hydro**

406. NAFTA contains special provisions limiting somewhat a Party’s responsibility for actions taken by state enterprises and monopolies. Put simply, the idea is that a state should not

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*[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]*

includes an organ of any territorial governmental entity within the State on the same basis as the central governmental organs of that State: this is made clear by the final phrase.

...

(5) The principle of the unity of the State entails that the acts or omissions of all its organs should be regarded as acts or omissions of the State for the purposes of international responsibility.

...

(6) Thus, the reference to a State organ in article 4 is intended in the most general sense. It is not limited to the organs of the central government, to officials at a high level or to persons with responsibility for the external relations of the State. It extends to organs of government of whatever kind or classification, exercising whatever functions, and at whatever level in the hierarchy . . . .

...

(7) The term ‘person or entity’ . . . used in article 4 . . . is used . . . in a broad sense to include any natural or legal person, including an individual office holder, a department, commission or other body exercising public authority, etc.”

<sup>501</sup> C-1, NAFTA, Arts. 1116(1)(a), 1117(1)(a). Both NAFTA Articles 1116 and 1117 authorize claims by an investor of one Party that another Party has breached an obligation under “Section A or Article 1503(2) (State Enterprises),” where “the investor has incurred loss or damage by reason of, or arising out of, that breach.” C-1, NAFTA, Arts. 1116(1)(a), 1117(1)(a). Section A of NAFTA Chapter 11 is entitled “Investment” and includes Articles 1101–1114.

incur liability for actions taken by a commercial enterprise acting in a commercial capacity — even if that entity is controlled by the State or is a monopoly authorized by the State. BC Hydro constitutes both a government monopoly<sup>502</sup> and a state enterprise<sup>503</sup> within the meaning of NAFTA Chapter 15. Canada’s responsibility for BC Hydro thus is subject to the additional conditions in Chapter 15. As demonstrated below, however, in establishing a GBL and its related terms and conditions for Celgar and other pulp mills, BC Hydro was acting under expressly delegated governmental authority, and was not acting in a commercial capacity. Thus, Canada is responsible for BC Hydro’s actions. Although Mercer could have brought claims under both Article 1503(2), governing state enterprises, and Article 1502(3), governing monopolies, to avoid duplication, it has elected to proceed under the provisions governing state enterprises alone.

407. NAFTA Article 1503(2) concerning state enterprises, imposes certain affirmative duties upon Canada, as well as accountability under Chapter 11, provided certain conditions are met.

408. In terms of affirmative duties, Article 1503(2), concerning state enterprises, requires that

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<sup>502</sup> Under Article 1505, a monopoly “means an entity, including a consortium or government agency, that in any relevant market in the territory of a Party is designated as the sole provider or purchaser of a good or service, but does not include an entity that has been granted an exclusive intellectual property right solely by reason of such grant.” BC Hydro meets this definition as it is a government agency that BC has established as the exclusive provider of electricity and electricity distribution services in its service territory.

<sup>503</sup> Under Article 1505, a state enterprise “means, except as set out in Annex 1505, and enterprise owned, or controlled through ownership interests, by a Party.” Annex 1505, in turn, states that for purposes of Article 1503(3), state enterprise includes “a Crown corporation within the meaning of any comparable provincial law.” BC Hydro thus is a state enterprise because it is both owned and controlled by the BC Government, as its sole shareholder, and because it is a Crown corporation under BC law.

Each Party shall *ensure*, through regulatory control, administrative supervision or the application of other measures, that any state enterprise that it maintains or establishes acts in a manner that is not inconsistent with the Party's obligations under Chapters Eleven (Investment) and Fourteen (Financial Services) wherever such enterprise exercises any regulatory, administrative or other governmental authority that the Party has delegated to it, such as the power to expropriate, grant licenses, approve commercial transactions or impose quotas, fees or other charges.<sup>504</sup>

409. The phrase “regulatory, administrative or other governmental authority” has the effect of narrowing the range of actions of state enterprises that are covered by the obligations in Chapter 11.<sup>505</sup> That expression, as noted in *UPS II*, must be read in conjunction with the instances of governmental authority which the provision lists, and with the obligations of the Parties undertaken in the other provisions of Articles 1503 that are excluded from arbitrability (which provisions cover the activities of making purchases and sales).<sup>506</sup> Thus construed, as the *UPS II* tribunal concluded, a state enterprise is not exercising a “governmental authority” when it uses “rights and powers which it shares with other businesses competing in the relevant market and undertaking commercial activities.”<sup>507</sup>

410. This construction is consonant with Article 5 of the International Law Commission's Draft Articles on the Responsibility of States for Internationally Wrongful Acts.<sup>508</sup> That provision attributes to the State the conduct of any non-State organ “empowered by the law of the State to exercise elements of the governmental authority” when it acts in that

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<sup>504</sup> C-1, NAFTA, Art. 1503(2) (emphasis added).

<sup>505</sup> CA-16, *UPS II* (NAFTA), ¶ 72.

<sup>506</sup> CA-16, *UPS II* (NAFTA), ¶ 73.

<sup>507</sup> CA-16, *UPS II* (NAFTA), ¶ 74.

<sup>508</sup> See CA-16, *UPS II* (NAFTA), ¶ 76.

capacity.<sup>509</sup> The final sentence of the paragraph from the commentary gives a further example of the distinction:

Thus, for example, the conduct of a railway company to which certain police powers have been granted will be regarded as an act of the State under international law if it concerns the exercise of those powers, but not if it concerns other activities (*e.g.* the sale of tickets or the purchase of rolling-stock).<sup>510</sup>

411. Mercer’s claims concern not BC Hydro’s commercial activities, but its actions in establishing GBLs for Celgar and other self-generators in the province, actions which meet these tests for “delegation” and the exercise of “governmental authority.”

412. The NAFTA notes include a definition of “delegation” for purposes of Article 1502(3), but no separate definition for purposes of the parallel usage of the term in Article 1503(2). Pursuant to NAFTA note 45, in Article 1502(3), a “delegation” includes a legislative grant, and a government order, directive or act transferring to the monopoly, or authorizing the exercise by the monopoly of, governmental authority.”<sup>511</sup> Mercer submits that there is no reason the same meaning for delegation should not be applied in the context of Article 1503(2) concerning state enterprises. There is no reason that a particular governmental action could constitute a delegation if performed for a monopoly but not for a state enterprise.

413. BCUC Order G-38-01 embodies a delegation within the meaning of both note 45 and Article 1503(2). In that Order, the BCUC expressly “directs” BC Hydro to negotiate and thereby determine GBLs with its customers:

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<sup>509</sup> CA-18, *ILC Articles*, Art. 5. (“The conduct of a person or entity which is not an organ of the State under article 4 but which is empowered by the law of that State to exercise elements of the governmental authority shall be considered an act of the State under international law, provided the person or entity is acting in that capacity in the particular instance.”).

<sup>510</sup> CA-18, *ILC Articles*, at 43.

<sup>511</sup> Mercer agrees with the UPS II Tribunal, which concluded there was no reason not to apply this definition to Article 1503 as well. CA-16, *UPS II (NAFTA)*, ¶ 69.



*The Commission directs* B.C. Hydro to allow Rate Schedule 1821 customers with idle self-generation capability to sell excess self-generated electricity, provided the self-generating customers do not arbitrage between embedded cost utility service and market prices. This means that B.C. Hydro is not required to supply any *increased* embedded cost of service to a RS 1821 customer selling its self-generation output to market. The Commission recognizes that considerable debate may ensue over whether a self-generator has met this principle, but the Commission expects B.C. Hydro to make every effort to agree on a customer baseline . . . .<sup>512</sup>

414. Order G-38-01 thus constitutes both a government “order” and a government “directive” within the meaning of note 45. BC Hydro did not have authority to set GBLs limiting access to embedded cost utility power, and prohibiting below-GBL sales to any person, prior to that 2001 Order, and it had not done so. While the Commission in certain cases retained a right of review over the GBL, through its approval authority, once the Province acted to remove that authority by exempting certain EPAs from BCUC review, the delegation of authority to BC Hydro was full and unconditional.

415. The establishment of a GBL likewise is an exercise of “governmental authority,” because it serves regulatory functions, is not a commercial activity, and is not a right or power that private businesses possess.

416. First, with reference to the illustrative examples of governmental powers contained in Article 1503(2) as set forth above (“such as the power to expropriate, grant licenses, approve commercial transactions or impose quotas, fees or other charges”), the setting of a GBL is a power to impose quotas. A GBL sets both the self-supply obligation of the self-generator and the level of embedded cost utility electricity to which it will have access while selling self-

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<sup>512</sup> C-5, Order G-38-01, at ¶ 1 (emphasis added).



generated electricity.<sup>513</sup> The latter is an allocation or quota, as an MEM policy analyst explicitly noted in observing that Order G-38-01's GBL system created among self-generators a type of quota system. Embedded cost electricity was to be rationed out based on historical consumption.<sup>514</sup> The setting of GBLs thus constitutes regulatory action. No private party has the right or power to dictate to a self-generator how much of its self-generated power it must use to self-supply.

417. Second, as noted above, the UCA both establishes the obligation of an electric utility to serve all eligible customers, and authorizes the BCUC to enforce and regulate such obligation. The placing of limitations on that obligation to serve is a quintessentially regulatory function, conferred by statute upon a provincially-created regulatory agency. Indeed, the BCUC itself has the authority to set GBLs, as it did for Tolko in 2001.

418. Third, the primary purpose of a GBL provision is to establish a self-generator's self-supply obligations and to limit a self-generator's access to embedded cost power for regulatory, not commercial, purposes. Although typically contained within a BC Hydro electricity purchase agreement, a GBL is not an ordinary commercial purchase or sale term. Indeed, it serves no legitimate, purely commercial purpose. The GBL does not define the quantity of electricity BC Hydro will purchase. That is left to other provisions defining BC Hydro's firm energy and non-firm energy purchase commitments.

419. Rather, the GBL provision in Celgar's EPA, and in all other BC Hydro EPAs, provides that the self-generator may not sell electricity generated below its GBL *to any person*,

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<sup>513</sup> Indeed, as noted above, BC Hydro framed the issue in its letter to the Commission initiating the G-38-01 proceeding precisely as a limitation on the utility's obligation to serve. *See supra*, ¶ 205.

<sup>514</sup> C-158, MEM, Briefing Note for Decision, British Columbia's Self Generator Policy (Draft, 10 May 2007).

including but not limited to BC Hydro.<sup>515</sup> Such prohibitions on doing business with third parties, in the absence of an exclusivity arrangement pursuant to which BC Hydro buys all the self-generator's electricity (which these EPAs do not contain), have no business in commercial contracts and would generally be prohibited under Canadian competition laws.<sup>516</sup>

420. Put another way, the provisions in a BC Hydro EPA that set the GBL are not a necessary part of the EPA. They could be contained in separate and independent agreements, or in an Order from the BCUC, as was the case for Tolko, demonstrating that they are not commercial terms necessary for the EPA.

421. Fourth, GBLs would not (and could not) be set by private parties without a corresponding delegation of governmental authority. FortisBC, for example, has never set a GBL for any self-generating customer, and would be unable to do so absent a delegation of authority from the BCUC similar to that provided to BC Hydro in Order G-38-01. Moreover, any resulting energy sales agreement or power purchase agreement containing a GBL would also require BCUC approval. GBLs are not commercial provisions that private parties can agree to or enforce.

422. In sum, BC Hydro's actions in establishing GBLs for Celgar and other self-generators constitute exercises of delegated governmental authority subject to the obligations of

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<sup>515</sup> C-239, Electricity Purchase Agreement between BC Hydro and Canfor Pulp Limited Partnership, App. 2 (4 February 2009) at ¶ 7.4, Canada Bates 015196, at 015213; C-145, C 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") at ¶ 7.4, Canada Bates 152467, at 152503; C-221, 2009 Celgar EPA, at ¶ 7.4; C-23, 2010 HSPP EPA, at ¶ 8.4, Canada Bates 016362, at 016384.

<sup>516</sup> Under Canadian competition laws, such prohibitions would be viewed as covenants in restraint of trade. Such a covenant "is enforceable only if it is reasonable between the parties and with reference to the public interest." C-151, *Elsley et.al. v. J.G. Collins Insurance Agencies Ltd.*, SCC {1978} 2 SCR 916.

Chapter 11 pursuant to Article 1503(2). NAFTA Articles 1116 and 1117 bring Mercer's claims involving BC Hydro's actions involving GBLs within the jurisdiction of this Tribunal.

423. Significantly, the affirmative duty imposed by NAFTA Article 1503(2) is not simply a duty to supervise. Rather, it is a duty to "ensure" compliance with, among other things, Chapter 11. Again, as observed by the Tribunal in *UPS II*,

the obligations accepted by the Parties are obligations of result and not simply obligations of conduct. They must 'ensure' by one measure or another that in the prescribed circumstances the monopoly (private as well as public) or the State enterprise does not act inconsistently with the Parties' own obligations under the identified provisions of NAFTA (the whole Agreement under Article 1502(3)(a) and chapters 11 and 14 under article 1503(2)).<sup>517</sup>

424. Violations of either of these affirmative duties to "ensure" give rise to claims within the Tribunal's jurisdiction, under both Article 1116 and Article 1117. Both articles explicitly provide for the arbitrability of claims that another Party has breached an obligation under "(a) Section A or Article 1503(2) (State Enterprises), or (b) Article 1502(3)(a) (Monopolies and State Enterprises) where the monopoly has acted in a manner inconsistent with the Party's obligations under Section A."<sup>518</sup>

**C. No Jurisdictional or Substantive Exclusion Applies**

425. NAFTA Article 1108 provides in pertinent part that Articles 1102 (national treatment) and 1103 (MFN) do not apply to

(a) procurement by a Party or a state enterprise, or

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<sup>517</sup> CA-16, *UPS II* (NAFTA), ¶ 69.

<sup>518</sup> The effect of these parallel provisions in Articles 1116 and 1117 is to provide for arbitration of claims for breaches of Article 1503(2), but not to provide for arbitration of claims involving obligations created by other provisions of Article 1503, including subsection 1503(3) ("Each Party shall ensure that any state enterprise that it maintains or establishes accords non-discriminatory treatment in the sales of goods or services to investments in the Party's territory of investors of another Party.") C-1, NAFTA, Arts. 1502–1503.

(b) subsidies or grants provided by a Party or a state enterprise, including government supported loans, guarantees and insurance.

426. Neither of these exceptions applies to the claims Mercer has raised. The measures at issue in Mercer's claims constitute neither subsidies nor procurements. Instead, the central issue in this case concerns limitations the Province placed on a utility's obligation to serve self-generation customers, where these limitations were different and more restrictive for Celgar than for all other pulp mills that were selling self-generating electricity, and where this disparity in treatment has deprived Mercer of the benefits of engaging in arbitrage that all other self-generating pulp mills enjoy to some extent.

427. Mercer makes no claim that it was denied a subsidy provided to others, and it seeks no damages tied to the amount of any subsidy or subsidy program. Likewise, Mercer makes no claim with respect to government procurement. It does not claim, for example, that it was improperly denied an EPA with BC Hydro. In fact, it received an EPA in 2009 as a result of a competitive bidding process. Indeed, Mercer is not even claiming that BC Hydro was required to have purchased more energy from Mercer in the 2009 EPA.

428. At issue in this case are the regulatory measures imposed by BC Hydro and the BCUC that, since 2009, have eliminated Mercer's access to embedded cost utility power while it is selling power not net of its 2007 load, and thereby eliminated its ability to sell its below-load self-generated energy to anyone (and not simply to "a Party or a state enterprise"). Indeed, as noted above, the very purpose of the G-38-01 proceeding with which these regulatory measures began was to define limitations on the obligations of a utility to serve customers with self-generation capability.

**1. Canada’s Restrictions on Celgar’s Access to Embedded Cost Power Are Not a Procurement by a Party or a State Enterprise**

429. The term “procurement” is not defined in NAFTA Chapter 11. Chapter 10, however, does provide a definition:

*Procurement includes procurement by* such methods as *purchase*, lease or rental, with or without an option to buy. *Procurement does not include:* (a) non-contractual agreements or any form of government assistance, including cooperative agreements, grants, loans, equity infusions, guarantees, fiscal incentives, and *government provision of goods and services* to persons or state, provincial and regional governments.<sup>519</sup>

430. This definition is consistent with the term’s ordinary meaning, and the definition applied by previous tribunals. Procurement involves a government’s acquisition of goods or services.<sup>520</sup>

431. This limited exclusion from arbitrability for procurement by a Party or a state enterprise must be construed consistently with the purpose behind Article 1503(2), and its express language providing for arbitration of claims involving actions taken by a state enterprise involving the exercise of “any regulatory, administrative or other governmental authority that the

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<sup>519</sup> C-1, NAFTA, Art. 1001(5)(a) (emphasis added).

<sup>520</sup> See C-137, *Procurement*, OED.COM, available at <http://www.oed.com/view/Entry/151913?redirectedFrom=procurement&>. (“The action of obtaining something; acquisition, an instance of this.” “A thing procured or obtained; an acquisition.” “Originally . . . the action or process of obtaining equipment and supplies. Subsequently( esp. in Business): the acquisition of goods or services at the best possible price, in appropriate quantity, at the right time and place, etc.; this as a practice.”). See also CA-1, *ADF Group Inc. v. United States of America* (NAFTA), ICSID Case No. ARB(AF)/00/1 (Award, 9 January 2003) (Feliciano, deMestral, Lamm) (“*ADF* (NAFTA)”), ¶ 161 (synthesizing dictionary definitions of procurement to conclude “governmental procurement refers to the *obtaining by purchase* by a governmental agency or entity of title to or possession of, for instance, goods, supplies, materials, and machinery.”) (emphasis added); CA-16, *UPS II* (NAFTA), ¶ 131 (citing *ADF Group* tribunal’s definition of “procurement”).

Party has delegated to it.” NAFTA Parties purposefully distinguished between “procurement” measures and “governmental authority” measures. For both provisions to work in concert, a measure involving an exercise of delegated governmental authority within the meaning of Article 1503(2) is arbitrable, and necessarily falls outside the scope of any Article 1108 exclusion.<sup>521</sup> As demonstrated above, BC Hydro’s actions in determining Celgar’s GBL are regulatory and

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<sup>521</sup> Under Article 31 of the Vienna Convention on the Law of Treaties, NAFTA Articles 1108 and 1503(2) must be read first and foremost in accordance with the ordinary meaning of their text. The terms of the provisions must be given full effect, and must not be interpreted in a manner that renders any provision superfluous. This is simply an application of the wider legal principle of effectiveness, or *ut res magis valeat quam pereat*, which requires favoring an interpretation that gives to every treaty provision an “*effet utile*.” As the tribunal in *Wintershall Aktiengesellschaft v. Argentina* stated, “Nothing is better settled as a common canon of interpretation in all systems of law than that a clause must be so interpreted as to give it a meaning rather than so as to deprive it of meaning.” CA-32, *Wintershall Aktiengesellschaft v. Argentine Republic*, ICSID Case No. ARB/04/14 (Award, 8 December 2008) (Nariman, Torres Bernárdez, Bernardini), ¶ 165. See also CA-29, *Ceskoslovenska Obchodni Banka, A.S. v. The Slovak Republic*, ICSID Case No. ARB/97/4 (Decision on Jurisdiction, 24 May 1999) (Buergenthal, Bernardini, Bucher) (“CSOB”), ¶ 39 (stating that a BIT provision “must be deemed to have some meaning as required under the principle of effectiveness (*effet utile*).”); CA-31, *Sociedad Anónima Eduardo Vieira v. Republic of Chile*, ICSID Case No. ARB/04/7 (Award, 21 August 2007) (von Wobeser, de Zaldueño, Reisman) (“*Vieira*”) ¶ 240 (“Based on the principle of . . . *effet utile*, all provisions of a treaty should be interpreted in a manner that gives them full effect, with the understanding that they were introduced into the text for a specific reason.”) (English translation); C-235, WTO Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R, adopted 20 May 1996, DSR 1996:I-3 at 23 (“One of the corollaries of the ‘general rule of interpretation’ in the Vienna Convention is that interpretation must give meaning and effect to all the terms of a treaty. An interpreter is not free to adopt a reading that would result in reducing whole clauses or paragraphs of a treaty to redundancy or inutility.” (citing CA-28, *Corfu Channel Case (Merits)*, 1949 I.C.J. 4 (Judgment, 9 April 1949) (“*Corfu Channel Case*”); CA-30, *Case Concerning the Territorial Dispute Case* (Libyan Arab Jamahiriya v. Chad), 1994 I.C.J. 6 (Judgment, 3 February 1994) (“*Territorial Dispute Case*”); CA-33, YEARBOOK OF THE INTERNATIONAL LAW COMMISSION, Volume II, A/CN.4/SER.A/1966/Add.1 (United Nations, 1966) at 219; CA-45, OPPENHEIM’S INTERNATIONAL LAW (R. Jennings and A. Watts, Ninth Edition) Volume 1 (Longman, 1996), 1280-1281; CA-46, Daillier, P. and Pellet, A., DROIT INTERNATIONAL PUBLIC (N. Quoc Dinh, Sixth Edition) (L.G.D.J., 1999), ¶ 17; CA-47, Carreau, D., DROIT INTERNATIONAL, Sixth Edition (Pedone, 1999), ¶ 369).

governmental in nature, fall within the scope of Article 1503(2), and thus are outside the scope of any exclusion in Article 1108.

432. Here, Mercer makes no claims concerning Canada's acquisition of any good or service. Rather, Mercer presents claims regarding its access to embedded cost utility electricity — the provision of a service by FortisBC, restricted by operation of BCUC Order G-48-09, and thus not a government procurement. The measures at issue here thus fall outside the scope of both the ordinary meaning of the term "procurement" as well as the specific definition provided in NAFTA Chapter 10.

433. Even to the extent the Province's restrictions had the effect also of limiting Mercer's ability to sell its self-generated electricity, the Province's actions restricted such sales not just specifically to "a Party or a state enterprise," but instead to all persons. By restricting Mercer's ability to sell its below-load self-generated power to third-parties, the restriction was far broader than a limitation on Mercer's ability to sell to "a Party or a state enterprise." The measures of which Mercer complains thus also are too broad to fit within the exclusion for "procurement of a Party or a state enterprise."

**2. Canada's Restriction's on Celgar's Access to Embedded Cost Power Are Not a Subsidy or Grant**

434. Just as the measures at issue in this case do not involve procurement, they also do not involve "subsidies or grants."

435. NAFTA does not define the term "subsidies or grants," but Article 1108(7)(b) contains illustrative examples, including "government supported loans, guarantees and insurance." The common element in these examples is that (1) a government (2) provides a benefit to a recipient — something of value at less than fair market value (hence the reference to



“government-supported”).<sup>522</sup> Similarly, the ordinary meaning of the word “subsidy” connotes “help, aid, {and/or} assistance.”<sup>523</sup>

436. NAFTA’s express allowance of claims for “treatment less favorable” in Articles 1102 and 1103 aids in the construction of NAFTA’s exclusion of subsidies and grants. To give

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<sup>522</sup> This is consistent with the international definition of subsidy contained in the WTO Agreement on Subsidies and Countervailing Measures (“SCM Agreement”), to which both Canada and the United States are signatories. C-161, WTO Agreement on Subsidies and Countervailing Measures (“SCM Agreement”), Article 1.1 deems a subsidy to exist if

(a)(1) there is a financial contribution by a government or any public body within the territory of a Member (referred to in this Agreement as “government”), *i.e.* where:

(i) a government practice involves a direct transfer of funds (*e.g.* grants, loans, and equity infusion), potential direct transfers of funds or liabilities (*e.g.* loan guarantees);

(ii) government revenue that is otherwise due is foregone or not collected (*e.g.* fiscal incentives such as tax credits)<sup>1</sup>;

(iii) a government provides goods or services other than general infrastructure, or purchases goods;

(iv) a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments;

or

(a)(2) there is any form of income or price support in the sense of Article XVI of GATT 1994;

and

(b) a benefit is thereby conferred.

Article 14(d) provides in pertinent part that

the provision of goods or services or purchase of goods by a government shall not be considered as conferring a benefit unless the provision is made for less than adequate remuneration, or the purchase is made for more than adequate remuneration. The adequacy of remuneration shall be determined in relation to prevailing market conditions for the good or service in question in the country of provision or purchase (including price, quality, availability, marketability, transportation and other conditions of purchase or sale).

<sup>523</sup> C-138, *Subsidy*, OED.COM, *available at* <http://www.oed.com/search?searchType=dictionary&q=subsidy>.



effect to both provisions, it cannot be the case that a NAFTA Party can avoid less-favorable treatment claims by portraying its conduct as providing a subsidy or grant to the favored party. The exception cannot negate the rule against less favorable treatment.

437. For this reason, the tribunal in *S.D. Myers Inc. v. Canada* distinguished subsidies or grants from other, arbitrable measures by focusing on the form of the measure. That case involved restrictions Canada had placed on the export of certain chemical waste, which restrictions Canada claimed had furthered its legitimate goals of ensuring the availability of environmentally sound waste disposal facilities within Canada and preserving the economic advantage of two Canadian waste processors. Although Canada justified the restrictions with broad-based policy reasons, the Ministry imposed the ban after engaging in private discussions with, and making an undisclosed promise to, two Canadian waste producers who had lobbied the Ministry for an export restriction.<sup>524</sup>

438. The *S.D. Myers* tribunal rejected Canada's argument concerning the legitimacy of its goals by pointing out that, under NAFTA, the form of the action Canada took, rather than its goals, affected the analysis of whether a national treatment violation occurred. The tribunal noted that Canada could have accomplished its goals by providing a subsidy to the Canadian waste processor, and thereby avoid a claim under Chapter 11 by virtue of the subsidies exclusion. However, because the measure Canada had taken involved the imposition of a restriction and not the granting of a subsidy, the tribunal found a violation of NAFTA Article 1102.

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<sup>524</sup> CA-21, *S.D. Myers, Inc. v. Government of Canada* (NAFTA), UNCITRAL (First Partial Award, 13 November 2000) (Hunger, Schwartz, Chiasson) ("*S.D. Myers I* (NAFTA)"), ¶¶ 168, 174, 251.

439. As in *S.D. Myers*, Mercer’s claims involve government-imposed restrictions — restrictions BC and BC Hydro placed on Celgar’s access to embedded cost power. The subsidy exclusion in Article 1108 therefore does not apply.<sup>525</sup> Here, Mercer is not complaining about any “government supported loans, guarantees, or insurance” or “grants” that it received, or did not receive, or even that others received. As noted above, none of the damages it seeks are measured by the value of benefits provided by a government to others. Rather, Mercer’s claims are for arbitrary, unfair, and differential regulatory standards and measures.

**D. Mercer Has Satisfied NAFTA’s Procedural Requirements**

440. Finally, Mercer has satisfied NAFTA’s procedural prerequisites. First, as required by NAFTA Article 1119, on 26 January 2012, Mercer served the Government of Canada with a written notice of its intent to submit a claim to arbitration (the “Notice of Intent”). Mercer filed its Request for Arbitration on 30 April 2012, fulfilling Article 1119’s requirement that at least 90 days elapse after the filing of the notice of intent.

441. Second, the claim was filed at least six months since the events giving rise to the claims, which occurred primarily in 2009.

442. The claims herein also are presented less than three years from the date that Mercer first acquired knowledge of the breaches set out herein and knowledge that Mercer had incurred loss or damage, as required by Article 1116(2). For example, the BCUC issued Order G-48-09 on 6 May 2009, it approved and made effective Celgar’s EPA (with its GBL provisions) on 31 July 2009, and the more favorable treatment afforded to other mills mostly occurred later.

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<sup>525</sup> CA-14, *S.D. Myers, Inc. v. Government of Canada* (NAFTA), UNCITRAL (Second Partial Award, 21 October 2002) (Hunter, Schwartz, Chiasson) (“*S.D. Myers II* (NAFTA)”), ¶¶ 255–256.

**PART IV: NAFTA VIOLATIONS**

**VI. CANADA HAS VIOLATED ITS OBLIGATIONS UNDER NAFTA ARTICLES 1102, 1103, AND 1503 BY ACCORDING MERCER LESS FAVORABLE TREATMENT THAT IT HAS AFFORDED CANADIAN INVESTORS AND THIRD-COUNTRY INVESTORS IN LIKE CIRCUMSTANCES**

**A. Applicable Legal Standard**

**1. The Relevant NAFTA Provisions**

443. NAFTA Article 1102 requires Canada to accord Mercer and its investments “treatment no less favorable than {Canada} accords, in like circumstances, to investments of its own investors with respect to the establishment, acquisition, management, conduct, operation, and sale or other disposition of investments.” As one tribunal has noted, “{t}he object of Article 1102 {is} to ensure that a national measure does not upset the competitive relationship between domestic and foreign investors.”<sup>526</sup>

444. Similarly, NAFTA Article 1103 obligates Canada to provide Mercer and its investments “treatment no less favorable than {Canada} accords, in like circumstances, to investors of any other Party or of a non-Party with respect to the establishment, acquisition, management, conduct, operation, and sale or other disposition of investments.”<sup>527</sup>

445. Both articles impose an identical obligation on Canada with respect to investors of another Party to NAFTA and their investments, except that Article 1102 imposes this obligation with respect to Canadian nationals, while Article 1103 extends the comparison to investors of other Parties and non-Parties.

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<sup>526</sup> CA-3, *Archer Daniels Midland Co. and Tate & Lyle Ingredients Americas, Inc. v. United Mexican States* (NAFTA), ICSID Case No. ARB(AF)/04/05 (Award, 21 November 2007) (Cremades, Rovine, Siqueiros T.) (“ADM (NAFTA)”), ¶ 199.

<sup>527</sup> C-1, NAFTA, Art. 1103.

446. As noted in Section V.B.2 above, by operation of Article 1503(2), Canada also is responsible for the actions of BC Hydro that were not also approved by the BCUC and are inconsistent with Articles 1102 and 1103.

447. The principle of non-discrimination on the basis of nationality in Articles 1102 and 1103 is “at the core of the Parties’ NAFTA obligations.”<sup>528</sup> Indeed, the stated objectives of NAFTA to promote fair competition and facilitate investment are to be understood in light of “its principles and rules, including national treatment, most-favored-nation treatment and transparency.”<sup>529</sup> Canada has violated both Articles by treating Mercer less favorably than either Canadian investors or other foreign investors.

## **2. The Legal Standard for Less Favorable Treatment under Articles 1102 and 1103**

448. To establish a *prima facie* violation of Article 1102 or 1103, an investor must establish three basic elements regarding its investment: (1) that the contracting State provided “treatment” with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments, (2) that the investment is in like circumstances to other investments within the territory of a contracting State, and (3) such investment has received less favorable treatment than a comparable investment.<sup>530</sup> As summarized by the tribunal in *Cargill Inc. v. Mexico*:

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<sup>528</sup> CA-17, Kinnear, Meg N., *et al.*, INVESTMENT DISPUTES UNDER NAFTA: AN ANNOTATED GUIDE TO NAFTA CHAPTER 11, Supplement No. 1 (Kluwer Law International 2006) at 1102-09. *See also*, CA-5, *Corn Products International Inc. v. United Mexican States* (NAFTA), ICSID Case No. ARB(AF)/04/1 (Decision on Responsibility, 15 January 2008) (Lowenfeld, de la Vega, Greenwood) (“*CPI* (NAFTA)”), ¶ 108.

<sup>529</sup> C-1, NAFTA, art. 102(1).

<sup>530</sup> CA-16, *UPS II* (NAFTA), ¶ 83. *See also* CA-6, *CPI* (NAFTA), ¶ 117 (“First, it must be shown that the Respondent State has accorded to the foreign investor or its investment ‘treatment

[FOOTNOTE CONTINUED ON NEXT PAGE]

{I}t must be demonstrated first that the Claimant, as an investor, is in “like circumstances” with the investor of another Party or of a non-Party, or that the Claimant’s investment is in “like circumstances” with the investment of an investor of another Party or of a non-Party. And second, it must be shown that the treatment received by Claimant was less favourable than the treatment received by the comparable investor or investment.<sup>531</sup>

449. The concept of “like circumstances” is not rigid, but instead should be tailored by the tribunal to the context of each case. As the *Pope & Talbot II* tribunal explained, “{b}y their very nature, ‘circumstances’ are context dependent and have no unalterable meaning across the spectrum of fact situations.”<sup>532</sup>

450. Moreover, “the concept of ‘like’ can have a range of meanings, from ‘similar’ all the way to ‘identical.’<sup>533</sup> Within the range of comparators that may be in “like” circumstances, the Tribunal must utilize the most appropriate comparators available. As the *Methanex* tribunal noted,

{I}t would be as perverse to ignore identical comparators if they were available and to use comparators that were less ‘like,’ as it would be perverse to refuse to

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

. . . with respect to the establishment, acquisition, expansion, management, conduct, operation and sale or other disposition’ of the relevant investments. Secondly, the foreign investor or investments must be ‘in like circumstances’ to an investor or investment of the Respondent State (‘the comparator’). Lastly, the treatment must have been less favourable than that accorded to the comparator.”).

<sup>531</sup> CA-4, *Cargill, Inc. v. United Mexican States* (NAFTA), ICSID Case No. ARB(AF)/05/2 (Award, 18 September 2009) (Pryles, Caron, McRae) (“*Cargill* (NAFTA)”), ¶ 228; see also CA-6, *Marvin Roy Feldman Karpa v. United Mexican States* (NAFTA), ICSID Case No. ARB(AF)/99/1 (Award, 16 December 2002) (Kerameus, Covarrubias Bravo, Gantz) (“*Feldman* (NAFTA)”), ¶ 181.

<sup>532</sup> CA-13, *Pope & Talbot Inc. v. Government of Canada* (NAFTA), UNCITRAL (Award on the Merits of Phase 2, 10 April 2001) (Dervaird, Greenberg, Belman) (“*Pope & Talbot II* (NAFTA)”), ¶ 75.

<sup>533</sup> CA-13, *Pope & Talbot II* (NAFTA), ¶ 75.

find and to apply less ‘like’ comparators when no identical comparators existed.<sup>534</sup>

451. “Treatment” is a very broad concept. The treatment to which Articles 1102 and 1103 refer is with respect to the “establishment, acquisition, expansion, management, conduct, operation and sale or other dispositions of investments.” As the tribunal characterized it in *Merrill & Ring*, “{t}he treatment is not different than the aggregate of all the regulatory measures applied to that business.”<sup>535</sup> “{I}t includes almost any conceivable measure that can be with respect to the beginning, development, management and end of an investor’s business activity.”<sup>536</sup>

452. Under the like circumstances and less favorable treatment legal standard, the investor is not required to show that the less favorable treatment is a result of the investor’s nationality; rather, it need show only that the three elements of the test are met. That is, a claimant need not show nationality-based animus, or, indeed, any intent to discriminate.<sup>537</sup>

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<sup>534</sup> CA-11, *Methanex Corp. v. United States of America* (NAFTA), UNCITRAL (Final Award, 3 August 2005) (Veeder, Rowley, Reisman) (“*Methanex* (NAFTA)”), Part IV, Ch. B, ¶ 17.

<sup>535</sup> CA-10, *Merrill & Ring Forestry L.P. v. Government of Canada* (NAFTA), UNCITRAL (Award, 31 March 2010) (Orrego Vicuña, Dam, Rowley) (“*Merrill* (NAFTA)”), ¶ 79.

<sup>536</sup> CA-10, *Merrill* (NAFTA), ¶ 79.

<sup>537</sup> CA-17, Kinnear, Meg N., *et al.*, INVESTMENT DISPUTES UNDER NAFTA: AN ANNOTATED GUIDE TO NAFTA CHAPTER 11, Supplement No. 1 (Kluwer Law International 2006) at 1102-09. See generally CA-6, *Feldman* (NAFTA), ¶ 183; see also CA-15, *International Thunderbird Gaming Corp. v. United Mexican States* (NAFTA), UNCITRAL (Award, 26 January 2006) (van den Berg, Portal Ariosa, Wälde) (“*Thunderbird* (NAFTA)”, ¶¶ 176-77. See also CA-19, Todd Weiler, “Treatment No Less Favourable and International Investment Law,” THE INTERPRETATION OF INTERNATIONAL INVESTMENT LAW: EQUALITY, DISCRIMINATION, AND MINIMUM STANDARDS OF TREATMENT IN HISTORICAL CONTEXT (Martinus Nijhoff Publishers, 2013) at 434 (explaining that in applying the standard of ‘treatment not less favorable’ under international investment law, “{t}here is not even so much as a hint in such texts that the aim or intent of the State responsible for the impugned measure should be relevant in the determination of *prima facie* compliance.”)

Tribunals have recognized that “requiring a foreign investor to prove that discrimination is based on his nationality could be an insurmountable burden to the Claimant, as that information may only be available to the government. It would be virtually impossible for any claimant to meet the burden of demonstrating that a government’s motivation for discrimination is nationality rather than some other reason.”<sup>538</sup> Further, “{i}f Article 1102 violations are limited to those where there is explicit (presumably de jure) discrimination against foreigners, e.g., through a law that treats foreign investors and domestic investors differently, it would greatly limit the effectiveness of the national treatment concept in protecting foreign investors.”<sup>539</sup> For these reasons, a tribunal’s discrimination inquiry must focus on the discriminatory effect of the alleged violation on the investor and its investment, and not the government’s intent.<sup>540</sup>

453. To be sure, several NAFTA tribunals have relied upon evidence of intent in finding the requisite discrimination.<sup>541</sup> However, in all such cases, the Government’s intent to discriminate based on nationality was clear, and this evidence certainly is relevant, and indeed

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<sup>538</sup> CA-6, *Feldman* (NAFTA), ¶ 183; see also CA-15, *Thunderbird* (NAFTA), ¶¶ 176-77.

<sup>539</sup> CA-6, *Feldman* (NAFTA), ¶ 183.

<sup>540</sup> CA-17, Kinnear, Meg N., *et al.*, INVESTMENT DISPUTES UNDER NAFTA: AN ANNOTATED GUIDE TO NAFTA CHAPTER 11, Supplement No. 1 (Kluwer Law International 2006) at 1102-24.

<sup>541</sup> CA-14, *S.D. Myers II* (NAFTA), ¶ 194; CA-6, *Feldman* (NAFTA), ¶¶ 181-182 (finding that while Article 1102 does not contain a requirement that the claimant demonstrate a state’s discriminatory intent, and that “Article 1102 by its terms suggests that it is sufficient to show less favorable treatment for the foreign investor than for domestic investors in like circumstances,” in that case “there is evidence of a nexus between the discrimination and the Claimant’s status as a foreign investor”); CA-5, *CPI* (NAFTA), ¶ 138 (explaining that “even if an intention to discriminate had not been shown, the fact that the adverse effects of the tax were felt exclusively by the HFCS producers and suppliers, all of them foreign-owned, to the benefit of the sugar producers, the majority of which were Mexican-owned, would be sufficient to establish that the third requirement of ‘less favourable treatment’ was satisfied.”); CA-3, *ADM* (NAFTA), ¶ 209 (while recognizing that “previous Tribunals have relied on the measure’s adverse effects on the relevant investors and their investments rather than on the intent of the Respondent State,” the tribunal found that “{i}n the present case, both the intent and effects of the Tax show the discriminatory nature of the measure.”).



dispositive, in establishing discrimination based on nationality. Thus, proof of intent to discriminate based on nationality is sufficient to establish the requisite discrimination, but it is not necessary. Indeed, no NAFTA tribunal has ruled that a claimant under Article 1102 or 1103 must provide evidence of nationality-based animus. As the *CPI* tribunal put it:

The existence of an intention to discriminate is not a requirement for a breach of Article 1102 . . . where such an intention is shown, that is sufficient to satisfy the {less favorable treatment} requirement. But the Tribunal would add that, even if an intention to discriminate had not been shown, the fact that the adverse effects of the tax were felt exclusively by the HFCS producers and suppliers, all of them foreign-owned, to the benefit of the sugar producers, the majority of which were Mexican-owned, would be sufficient to establish that the third requirement of less favourable treatment was satisfied.<sup>542</sup>

a. *Identification of Comparators in  
“Like Circumstances”*

454. The first step in the analysis is to identify comparators in “like circumstances.” NAFTA tribunals engaged in a “like circumstances” inquiry have considered three principal factors in identifying comparators in like circumstances. Tribunals have considered whether the comparators (1) operate in the same business or economic sector, (2) produce competing goods or services, and (3) are subject to a comparable legal regime or requirements.<sup>543</sup> Tribunals assess

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<sup>542</sup> CA-5, *CPI* (NAFTA), ¶ 117. That tribunal identified the three requirements of a NAFTA less favorable treatment claim as (1) treatment, (2) in like circumstances, (3) that is less favorable.

<sup>543</sup> See, e.g., CA-13, *Pope & Talbot II* (NAFTA), ¶ 78 (“the treatment accorded a foreign owned investment protected by Article 1102(2) should be compared with that accorded domestic investments in the same business or economic sector”); CA-3, *ADM* (NAFTA), ¶ 199 (In analyzing like circumstances “tribunals convened under Chapter Eleven have focused mainly on the competitive relationship between investors in the marketplace.”); CA-7, *Grand River Enterprises Six Nations, Ltd., et al. v. United States of America* (NAFTA), UNCITRAL (Award, 12 January 2011) (Nariman, Anaya, Crook) (“*Grand River* (NAFTA)”, ¶ 167; (“the identity of the legal regime(s) applicable to a claimant and its purported comparators to be a compelling factor in assessing whether like is indeed being compared to like....”).



these factors in the context of the claim, focusing on analysis of the circumstances relevant to the measure taken.<sup>544</sup>

(i) Comparators in like circumstances operate in the same business sector

455. One factor considered in establishing appropriate comparators is whether the investor's enterprise operates and competes in the same business sector as the proposed comparators.<sup>545</sup> The analysis focuses on the commercial operations of the investor, rather than the scale of those operations.<sup>546</sup> Tribunals examine the business's various activities, including the economics of the services offered, the logistics and internal controls on those operations, and the customer base.<sup>547</sup>

456. Commercial operations encompass not only the end product but also the revenue generating process. For example, in *Feldman v. Mexico*, the claimant was a cigarette reseller who exported cigarettes from Mexico and argued that it should be compared to other resellers. The tribunal endorsed this approach, holding that "the 'universe' of firms in like circumstances are those . . . in the business of reselling/exporting cigarettes. Other Mexican firms that may also export cigarettes, {namely, producers who sell their own product}, are not in like

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<sup>544</sup> CA-4, *Cargill* (NAFTA), ¶ 207.

<sup>545</sup> CA-5, *CPI* (NAFTA), ¶ 120 ("It is necessary to begin with a comparison between domestic and foreign investors operating in the same business or economic sector as the claimant."); CA-21, *S.D. Myers I* (NAFTA), ¶ 250.

<sup>546</sup> CA-12, *Pakerings-Compagniet AS v. Republic of Lithuania*, ICSID Case No. ARB/05/8 (Award, 11 September 2007) (Lévy, Lew, Lalonde) ("*Pakerings*"), ¶ 391.

<sup>547</sup> CA-16, *UPS II* (NAFTA), ¶¶ 101–04 (comparing state postal service, and private courier service).

circumstances.”<sup>548</sup> As demonstrated by *Feldman*, the identity of business sectors thus turns on how the business operates rather than simply the products they sell.<sup>549</sup>

(ii) Comparators in like circumstances produce competing products

457. A second factor tribunals have examined when considering like circumstances is whether the investor provides the same or competing goods or services as its proposed comparators. Tribunals have found producers of both identical goods as well as directly competing goods to be in like circumstances. For example, in *Corn Products International v. Mexico* (“*CPI*”), a NAFTA tribunal considered a single comparator and found like circumstances where the claimant’s sweetener (high fructose corn syrup) was in direct competition with a different sweetener produced by national companies (cane sugar) in uses including canned and bottled beverages.<sup>550</sup> Accordingly, where an investor’s product is in direct competition with that of a comparator, this factor supports a conclusion that the two entities are in “like circumstances.”<sup>551</sup>

(iii) Comparators in like circumstances are those subject to a “comparable legal regime”

458. The third factor tribunals have considered in determining comparators in like circumstances is whether the claimant and the comparator are subject to the same legal regime with regard to the subject matter of the claim, “NAFTA tribunals have given significant weight

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<sup>548</sup> CA-6, *Feldman* (NAFTA), ¶ 171.

<sup>549</sup> See also CA-16, *UPS II* (NAFTA), ¶¶ 101–04 (describing the differences between a postal service and a courier service, although both deliver mail).

<sup>550</sup> CA-5, *CPI* (NAFTA), ¶ 120; see also CA-21, *S.D. Myers I* (NAFTA), ¶ 251 (holding that where the claimant was in a position to take business away from national firms, the companies were in like circumstances).

<sup>551</sup> CA-5, *CPI* (NAFTA), ¶ 120.

to the legal regimes applicable to particular entities in assessing whether they are in ‘like circumstances’ . . . {thus} tribunals have assigned important weight to ‘like legal requirements’ in determining whether there were ‘like circumstances.’”<sup>552</sup>

459. The tribunal in *Grand River* highlighted the importance of examining the legal regime when identifying comparators. In that case, the claimant had failed to identify a comparator, but the tribunal, conducting its own comparison *sua sponte*, determined “the identity of the legal regime(s) applicable to a claimant and its purported comparators to be a compelling factor in assessing whether like is indeed being compared to like . . . .”<sup>553</sup> The tribunal determined the appropriate comparators for the claimant were those “potentially subject to {the same legal penalties}.”<sup>554</sup>

460. Likewise, in *Merrill & Ring v. Canada*, the NAFTA tribunal found that the “proper comparison is between investors which are subject to the same regulatory measures under the same jurisdictional authority.”<sup>555</sup> Thus, in *Merrill & Ring*, the tribunal determined that NAFTA did not permit comparisons of measures imposed at different levels of government, and

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<sup>552</sup> CA-7, *Grand River* (NAFTA), ¶ 166; see also CA-11, *Methanex* (NAFTA), Part II, Chapter D, ¶¶ 21–22 (comparators were those companies subject to the same ban on additives as the claimant); CA-16, *UPS II* (NAFTA), ¶ 102. For example, in *Pope & Talbot II*, Canada had implemented the Softwood Lumber Agreement with the United States, subjecting mills in certain provinces, including the province in which the claimant operated, to a special export control regime. In comparing claimant to other firms, the tribunal concluded that the claimant was in like circumstances with the other firms in provinces subject to the export restriction, but not with firms in provinces where the new export laws did not apply. CA-13, *Pope & Talbot II* (NAFTA), ¶¶ 20, 88.

<sup>553</sup> CA-7, *Grand River* (NAFTA), ¶ 167.

<sup>554</sup> CA-7, *Grand River* (NAFTA), ¶ 165.

<sup>555</sup> CA-10, *Merrill* (NAFTA), ¶ 89.

rejected comparisons of a Canadian federal government measure to measures imposed by provincial governments, even where the measures applied to the identical product.<sup>556</sup>

461. Thus, for example, it would be inappropriate to compare the regulatory treatment afforded to Celgar's self-generated electricity with that afforded to a pulp mill located in Quebec. The issues involved in this case are all regulated at the provincial level, and thus the legal regime governing self-generators in BC is different than the legal regime governing self-generators in Quebec. Correspondingly, it would be inappropriate to limit potential comparators to self-generators located in FortisBC's geographic service territory. A utility service territory is not a political jurisdiction, there is no jurisdictional authority unique to a service territory, and a service territory has no unique legal regime. The BC laws and regulations governing access to utility embedded cost electricity apply province-wide, and the BCUC's jurisdiction to regulate such access for self-generators while they sell electricity is province-wide.

- (iv) The appropriate comparators are limited to other NBSK pulp mills that produce and sell self-generated, biomass-based green electricity

462. Considering the three factors identified by previous tribunals — for purposes of examining restrictions on access to embedded cost utility electricity by self-generators while they are selling electricity, and the impact of differences in those restrictions — the “like circumstances” standard limits the appropriate comparators in this case to other NBSK pulp mills, located in British Columbia (and thus subject to BCUC authority and BC self-generator policy), that produce and sell self-generated electricity. Such mills are in *identical* circumstances to Celgar under all factors, and must be considered ahead of mills only in *similar* circumstances.

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<sup>556</sup> CA-10, *Merrill* (NAFTA), ¶ 82

463. Legal Regime. With respect to the “legal regime,” the regulatory regime at issue here is limited to British Columbia, but, as noted, covers all of British Columbia. The BCUC’s jurisdiction is province-wide, and it may issue orders affecting self-generators province-wide. Likewise, BC Hydro has computed GBLs for self-generators province-wide, and has issued guidelines for the computation of GBLs that it applies province-wide.

464. The fact that BC Hydro and/or the BCUC have chosen to determine the degree of access afforded to certain individual self-generators on a case-by-case basis does not detract from the conclusion that the legal regime under which they have acted extends province-wide. The jurisdictional authority of the BCUC extends over the entire province, as does the authority of BC Hydro to establish GBLs. The fact that they have exercised that authority through case-by-case determinations does not lessen their responsibility to ensure that self-generators owned by U.S. investors are treated no less favorably than those owned by Canadian or third-country investors throughout the entire jurisdiction over which their authority extends — the Province of British Columbia.

465. Competing Products. With respect to “competing products,” Mercer’s investment, Celgar, produces and sells NBSK market pulp and biomass-based green electricity. Its comparators in identical “like circumstances” necessarily are limited to other NBSK market pulp producers that also produce and sell biomass-based green electricity — but not only biomass-based green electricity. While the typical investment dispute involves competition with respect to the sale of a single product, this case is different in that it involves two products produced in an interdependent, joint production process. Celgar cannot economically produce electricity without also producing NBSK pulp, and it requires access to electricity while selling

below-load self-generated electricity only to meet the load of its pulp operations. Both products therefore must be considered in identifying appropriate comparators.

466. Although the measures at issue here, involving restrictions on a self-generator's access to embedded cost utility power while selling self-generated electricity, nominally involve only electricity, it would be wrong to conclude that the universe of identical comparators in "like circumstances" should include all self-generators in BC. First, not all such self-generators utilize biomass as their fuel source, or produce green electricity. As demonstrated in Section II.B.5 above, there is a distinct market in BC for biomass-based green energy, in which Celgar has competed — witness the Bioenergy Phase I process and results — and will continue to compete. Other NBSK pulp mills produce the same electricity product and compete in the same market, but this is not true of all self-generators. For example, the City of Nelson has generation assets, but these are not biomass-based. It therefore was not eligible to compete in the Bioenergy Phase I call, and is not a direct competitor of Celgar even looking just at electricity markets.

467. Second, differential restrictions affecting Celgar's ability to access embedded cost utility energy and to sell its self-generated electricity as compared to its NBSK pulp competitors also impact its ability to sell NBSK pulp and its competitiveness in its NBSK pulp markets. As Mercer explained above, several of BC's other NBSK mills fall in the lower two quartiles in terms of global competitiveness, and, historically, would shut down at low points in the NBSK pulp market cycle. By eliminating Celgar's access to embedded cost utility energy while it is selling below-load electricity, but imposing less restrictive measures on competing BC pulp mills, BC improves the competitiveness of those pulp mills relative to Celgar. BC allows other NBSK mills to profit more from electricity arbitrage than it does Celgar, and these profits shift the idle/shutdown points for those mills. The pulp price they require to cover their cash

operating costs therefore is lower than where it would be absent the more favorable regulatory treatment, because of the additional revenues they receive from the arbitrage of their below-load self-generated electricity. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

468. Electricity arbitrage profits also enhance the ability of pulp mills within Celgar’s geographic chip supply radius to bid up the price of the wood chips Celgar requires as the key input to both its pulping and generation operations. The Tembec Skookumchuck mill, for example, competes with Celgar for wood chips.

469. The challenged measures thus impact Celgar’s competitiveness in its markets for both biomass-based green energy and NBSK pulp, and it is in identical circumstances with only other BC NBSK pulp mills that also sell self-generated electricity.

470. Business Sector. The third factor — business sector — likewise compels the conclusion that the like circumstances standard limits Celgar’s identical comparators in like circumstances to BC NBSK pulp mills also selling self-generated electricity. Celgar is first and foremost a pulp mill. Pulp sales in 2013 accounted for over 96 percent of its revenue. The Province classifies it as a pulp mill (and not as an electric utility or independent power producer), and it is not regulated as an electric utility.<sup>557</sup>

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<sup>557</sup> Merwin Witness Statement, ¶ 157 n. 68 (“For statistical purposes, Celgar is classified under North American Industry Classification System (NAICS) classification code 322110. This classification is for pulp manufacturing. The NAICS system is used both in Canada and the United States, and was developed jointly by the U.S. Economic Policy Committee, Statistics Canada, and Mexico’s Instituto Nacional de Estadística y Geografía, for common use in North America.”).

471. The economics of Celgar's pulp and electricity operations are intertwined. No NBSK pulp mill in BC can generate electricity economically unless it also produces pulp and recovers the black liquor and wood residues that fuel its generators. Investments in improving the efficiency of certain pulp processes, such as to reduce the thermal needs of the plant, or increase the recovery of black liquor, impact the economics of electricity generation by making more steam available for the turbine generators, and more fuel for the recovery boiler.

472. Given the interdependencies between pulp production and electricity generation in an NBSK mill, it makes little sense to compare BC's regulatory treatment of Celgar to, say a sawmill with self-generation, such as Tolko's sawmill in Kelowna. Sawmills do not compete with pulp mills; rather, sawmills supply pulp mills with wood chips and hog fuel. Both need the other to survive. If the Province were to afford Tolko's sawmill greater access to embedded cost utility power so that it could sell more below-load electricity at market prices, the impact on Celgar would be minimal to non-existent. Such action would not affect at all Celgar's relative competitiveness in the pulp sector, its primary line of business. And even though Tolko does produce biomass-based green energy at its sawmill, the amounts simply are too small to compete with Celgar. For example, Tolko would have been eligible to sell its power into BC Hydro's Standing Offer Program, which capped the amount of energy that could be sold, and thus was unattractive to Celgar, which instead successfully participated in Bioenergy Phase I.

473. One highly interdependent joint production process produces two products (pulp and biomass-based green electricity) with interdependent revenue streams. Mercer submits that in such circumstances, comparators in the same business sector must likewise sell both products.

474. To establish a difference in treatment between Celgar and non-U.S. NBSK pulp mills in BC selling self-generated electricity, with respect to access to embedded cost utility



electricity, Mercer presents below details concerning the Province's regulatory treatment of Howe Sound's Port Mellon mill and Tembec's Skookumchuck mill.<sup>558</sup> These investments are in identical circumstances to Mercer's Celgar investment. Both mills produce NBSK market pulp, produce biomass-based self-generated electricity, and sell such green electricity. Both mills are in British Columbia and thus subject to the same provincial legal regime, including the Province's regime governing self-generated electricity. Both have negotiated EPA's with BC Hydro containing GBL provisions regulating access to embedded cost utility power.

475. Significantly, like Celgar, both mills invested in substantial new generation capacity in the decade prior to the BCUC's issuance of Order G-38-01 in 2001, and thus provide appropriate comparators with respect to the Province's treatment of investors who began to repower prior to the issuance of that order. Indeed, together they comprise three pulp mill "early-adopters" of significant self-generation capability, with Howe Sound investing in 1989-91, Celgar in 1992-93, and Tembec in 2001. Howe Sound represents the investment closest in time *before* Celgar; Tembec represents the investment closest in time *after*.<sup>559</sup>

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<sup>558</sup> Mercer also makes an independent claim that the Province discriminated against Celgar in taking, by regulatory action, load displacement services that it paid others to provide. For that analysis, Mercer also presents Canfor's Prince George/Intercontinental NBSK pulp mills as an appropriate comparator. The Canfor mills also are in identical circumstances to Celgar as they are to NBSK pulp mills, located in BC, that sell both biomass-based green electricity and NBSK market pulp, and have entered into an EPA with BC Hydro, approved by the BCUC, containing GBL provisions regulating access to embedded cost utility electricity.

<sup>559</sup> It is unnecessary for Mercer to address the treatment afforded to other BC NBSK pulp mills, or to all such mills. As set forth below, NAFTA requires Canada to provide Celgar with the *best* treatment afforded a Canadian or third-country comparator. In any event, as Mr. Switlishoff explains in his testimony, the evidence concerning these other NBSK mills confirms that *all* have been afforded more favorable treatment than Celgar. None is held to a net-of-load standard, and all are provided access to embedded cost utility electricity so they can engage in some arbitrage. Switlishoff Expert Statement, ¶¶ 4, 89, 210. Put another way, with respect to the degree of access to embedded cost utility electricity while selling self-generated electricity, Canada treats Mercer worse than any other NBSK pulp mill in BC.

476. At all relevant times, Tembec and its predecessors, Tembec Enterprises Inc. and Tembec Industries Inc., were either Canadian corporations or Canadian partnerships with at least one Canadian corporation as a partner.<sup>560</sup> From at least 1989 to 1 October 2010, Howe Sound was owned 50 percent by a Canadian corporation and 50 percent by a Japanese corporation, and, as from 1 October 2010, it has been owned by a Netherlands corporation, and ultimately Asian interests. These two comparators thus exemplify the Province's treatment of nationals under NAFTA's national treatment obligation and third-countries under NAFTA's MFN obligation.

477. As will be demonstrated below, the Province has afforded Celgar less favorable treatment than both Howe Sound and Tembec with regard to access to utility-supplied electricity at embedded cost rates while selling their below-load self-generated electricity.

*b. Less Favorable Treatment*

478. NAFTA tribunals have held that the term “no less favorable’ means equivalent to, not better or worse than, the best treatment accorded to the comparator.”<sup>561</sup> A State's measures may create nationality-based discrimination *de jure* or *de facto*.<sup>562</sup> A *de jure* discriminatory measure is one that “on {its} face treat{s} certain entities differently,”<sup>563</sup> whereas a *de facto* discriminatory measure is one which is “neutral on {its} face but which result{s} in differential treatment” between investors or investments in like circumstances.<sup>564</sup>

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<sup>560</sup> See *supra* n. 242.

<sup>561</sup> CA-13, *Pope & Talbot II* (NAFTA), ¶ 42; CA-3, *ADM* (NAFTA), ¶ 205 (“Accordingly, Claimants and their investment are entitled to the best level of treatment available to any other domestic investor or investment operating in like circumstances...”).

<sup>562</sup> See, e.g., CA-3, *ADM* (NAFTA), ¶ 193; CA-5, *CPI* (NAFTA), ¶ 115 (explaining “that Article 1102 embraces *de facto* as well as *de jure* discrimination.”).

<sup>563</sup> CA-3, *ADM* (NAFTA), ¶ 193.

<sup>564</sup> CA-3, *ADM* (NAFTA), ¶ 193.

479. Instances of *de jure* discrimination “do not arise as frequently” as those of *de facto* discrimination, given that “if a measure {facially} treats foreign and domestic investors differently, the existence of nationality-based discrimination will often not be in doubt.”<sup>565</sup> In other words, States typically avoid overt actions likely to give rise to liability.<sup>566</sup>

480. In the instant case, the measures at issue, including Orders G-38-01 and G-48-09, and BC Hydro’s case-by-case determination of GBLs under these Orders, do not mention nationality and thus are not facially discriminatory. Accordingly, Mercer does not allege *de jure* discrimination. Rather, Mercer contends that the measures are *de facto* discriminatory, and have been applied in a discriminatory fashion.

481. In analyzing claims of *de facto* discrimination, several NAFTA tribunals have articulated the standard somewhat differently. In *S.D. Myers*, for example, the tribunal stated that it examined whether the practical effect of the challenged measure restricting exports of certain hazardous chemicals was to provide a “disproportionate benefit for nationals over non-nationals.”<sup>567</sup> In *Pope & Talbot II*, on the other hand, the tribunal expressly rejected this approach as “wholly unnecessary.” That, tribunal, consistently with most others, held instead that “once the tribunal found any kind of significant benefit for nationals over non-nationals, the predicate for a violation of Article 1102 was satisfied.”<sup>568</sup>

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<sup>565</sup> CA-17, Kinnear, Meg N., *et al.*, INVESTMENT DISPUTES UNDER NAFTA: AN ANNOTATED GUIDE TO NAFTA CHAPTER 11, Supplement No. 1 (Kluwer Law International 2006) at 1102-41.

<sup>566</sup> See CA-13, *Pope & Talbot II* (NAFTA), ¶ 70 (“{T}he recognition that national treatment can be denied through *de facto* measures has always been based on an unwillingness to allow circumvention of that right by skillful or evasive drafting.”).

<sup>567</sup> CA-21, *S.D. Myers I* (NAFTA), ¶ 252.

<sup>568</sup> CA-13, *Pope & Talbot II* (NAFTA), n. 59; see also CA-3, *ADM* (NAFTA), ¶ 196 (explaining that “{p}ursuant to the ordinary meaning of Article 1102, the Arbitral Tribunal shall: (i) identify the relevant subjects for comparison; (ii) consider the treatment each comparator receives; and

[FOOTNOTE CONTINUED ON NEXT PAGE]

482. While nominally different, in fact both tribunals performed the same analysis. In testing for “disproportionate benefit,” the *SD Myers* tribunal did not require any broad statistical analysis of the differing impacts of the export restriction across all US and Canadian comparators. It simply examined, in the context of a case involving very few competitors, whether the impact of the export restriction was to afford greater benefits to Canadian comparators than to the U.S. Claimant.<sup>569</sup> The tribunal’s reference to “disproportionate” thus may best be understood as contemplating deviation from the baseline that would result from a neutral measure. Likewise, the *Pope & Talbot II* tribunal, in a case involving hundreds of competing sawmills, also focused its analysis on whether the impact of the measure was to benefit a Canadian comparator to the detriment of the U.S. claimant.<sup>570</sup>

483. In both cases, the tribunals considered the practical impact of the measures in question, rather than the intent of the government imposing them, and whether a comparator in like circumstances was treated better than the claimant.<sup>571</sup> Indeed, as already noted, to require intent as a necessary element of a *de facto* discrimination claim would be tantamount to converting the *de facto* test into a *de jure* test.

c. *No Relationship to a Rational Policy*

484. If Mercer establishes that BC or BC Hydro afforded it less favorable treatment concerning access to utility embedded cost power while selling electricity than they afforded

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

(iii) consider any factors that may justify any differential treatment.”); CA-5, *CPI* (NAFTA), ¶ 117; CA-16, *UPS II* (NAFTA), ¶ 83.

<sup>569</sup> CA-21, *S.D. Myers I* (NAFTA), ¶¶ 251, 255.

<sup>570</sup> See CA-13, *Pope & Talbot II* (NAFTA), ¶¶ 78, 180.

<sup>571</sup> See also CA-10, *Merrill* (NAFTA), ¶ 80, citing *S.D. Myers I* (NAFTA), ¶ 254; CA-6, *Feldman* (NAFTA), ¶ 181.

Tembec’s Skookumchuck mill, the Howe Sound mill, or the Canfor mills, then Canada can avoid liability under Articles 1102 or 1103 for the discriminatory treatment accorded to Celgar relative to its comparators only if it can establish that its differential treatment is reasonably related to a legitimate government policy that is not itself discriminatory.<sup>572</sup> Once the claimant has established that it is treated less favorably than comparators in like circumstances, the burden shifts to the respondent State to demonstrate that the less favorable treatment was justified.<sup>573</sup> As the *Pope & Talbot II* tribunal stated, a “{d}ifference in treatment will presumptively violate Article{s} 1102(2) {or 1103} unless {it has} a reasonable nexus to rational government policies that (1) do not distinguish, on their face or de facto, between foreign-owned and domestic companies, and (2) do not otherwise unduly undermine the investment liberalizing objectives of NAFTA.”<sup>574</sup> Thus, the State must show that its differential treatment of the claimant “bears a reasonable relationship to rational policies not motivated by {nationality-based preferences}.”<sup>575</sup>

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<sup>572</sup> CA-12, *Pakerings*, ¶ 368; CA-6, *Feldman* (NAFTA), ¶ 86; CA-13, *Pope & Talbot II* (NAFTA), ¶¶ 70–78; CA-3, *ADM* (NAFTA), ¶ 205.

<sup>573</sup> See CA-6, *Feldman* (NAFTA), ¶ 176. See also CA-19, Todd Weiler, “Treatment No Less Favourable and International Investment Law,” *THE INTERPRETATION OF INTERNATIONAL INVESTMENT LAW: EQUALITY, DISCRIMINATION, AND MINIMUM STANDARDS OF TREATMENT IN HISTORICAL CONTEXT* (Martinus Nijhoff Publishers 2013) at 434 (Explaining that “{i}t lies for the host State to demonstrate why its having accorded less favourable treatment was appropriate in the circumstances.”). This shift in the burden of proof is necessary and appropriate because the State is in a far better position than the investor to provide the rationale and objectives for its actions.

<sup>574</sup> CA-13, *Pope & Talbot II* (NAFTA), ¶ 78. See also CA-3, *ADM* (NAFTA), ¶ 196 (explaining that “{p}ursuant to the ordinary meaning of Article 1102, the Arbitral Tribunal shall: (i) identify the relevant subjects for comparison; (ii) consider the treatment each comparator receives; and (iii) consider any factors that may justify any differential treatment.”).

<sup>575</sup> CA-13, *Pope & Talbot II* (NAFTA), ¶¶ 79, 88 (articulating the test but not applying it, because investors were not in “like circumstances”). The purpose of the reasonable nexus to a rational policy test is to distinguish prohibited nationality-based discriminatory impacts from permissible impacts tied to legitimate governmental policy. Tribunals have recognized that where, as here, the Claimant is alleging *de facto* discrimination rather than *de jure*

[FOOTNOTE CONTINUED ON NEXT PAGE]

485. A State does not meet this burden where it could have achieved its policy objective through non-discriminatory means. For example, in *S.D. Myers*, Canada attempted to justify its restrictions on the exportation of certain hazardous chemical waste products (PCBs) to the United States by claiming the ban was necessary “to ensure the economic strength of the Canadian industry, in part, because it wanted to maintain the ability to process PCBs within Canada in the future.”<sup>576</sup> The tribunal considered this indirect environmental objective “understandable,” but held that the means Canada used to achieve it “contravened CANADA’s international commitments under the NAFTA,” and specifically, violated Articles 1102 and 1105.<sup>577</sup>

486. In reaching this conclusion, the tribunal ruled that where the government has the option to achieve its objectives through non-discriminatory means, the choice nonetheless to discriminate against an investor violates NAFTA. In particular, the tribunal noted that “CANADA’s right to source all government requirements and to grant subsidies to the Canadian industry are but two examples of legitimate alternative measures”<sup>578</sup> to achieve Canada’s environmental goals, but the discriminatory ban was not.<sup>579</sup> As evidence, it pointed to Canada’s

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

discrimination, it rarely will have access to evidence of the government’s intent or of intentional nationality-based bias. Instead, tribunals have, in effect, inferred nationality-based discrimination from (1) the existence of a discriminatory impact on the Claimant in comparison to a national of the host State or a national of a third-country, and (2) the absence of a reasoned basis for the different impacts rationally related to a legitimate government policy.

<sup>576</sup> CA-21, *S.D. Myers I* (NAFTA), ¶ 255.

<sup>577</sup> CA-21, *S.D. Myers I* (NAFTA), ¶¶ 195, 255.

<sup>578</sup> CA-21, *S.D. Myers I* (NAFTA), ¶ 255.

<sup>579</sup> CA-21, *S.D. Myers I* (NAFTA), ¶ 255.

reversal of the export ban several years later as evidence “that Canada was not constrained in its ability to deal effectively with the situation” when exports were allowed.<sup>580</sup>

487. Notably, to date no NAFTA tribunal has found that a State successfully demonstrated a reasonable relationship between a measure found to be discriminatory and a rational non-discriminatory governmental policy.

488. The issue of whether a discriminatory measure has a reasonable nexus to a rational policy also has been examined by other investment tribunals in the context of BIT claims. Though these tribunals address discrimination outside of like circumstances, their interpretation of “justifiable” discrimination nonetheless helps to clarify the standard under Articles 1102 and 1103.

489. In the broader investment context, where the tribunal is called upon to assess whether a State’s treatment of an investor bears a “reasonable relationship to a rational policy” tribunals have identified two elements necessary to justify such measures. “{F}or a state’s conduct to be reasonable, it is not sufficient that it be related to a rational policy; it is also necessary that, in the implementation of that policy, the state’s acts have been appropriately tailored to the pursuit of that rational policy with due regard for the consequences imposed on

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<sup>580</sup> CA-21, *S.D. Myers I* (NAFTA), ¶ 255. Similarly, in *CPI* (NAFTA) the tribunal held that Mexico’s goal of mitigating the effects of certain U.S. trade measures on local producers could not justify its discriminatory tax measures, which in effect, targeted U.S. producers of non-cane soft-drink sweeteners to the advantage of Mexican firms which produced cane sweeteners. The *CPI* tribunal explained that even having a “laudable” or “necessary” goal, “does not alter the fact that the nature of the measure which Mexico took was one which treated producers of HFCS in a markedly less favourable way than Mexican producers of sugar. Discrimination does not cease to be discrimination, nor to attract the international liability stemming therefrom, because it is undertaken to achieve a laudable goal or because the achievement of that goal can be described as necessary.” CA-5, *CPI* (NAFTA), ¶ 142.



investors.”<sup>581</sup> Thus, a justification defense demands that the State prove (1) “the existence of a rational policy”, and (2) an “appropriate correlation between the state’s public policy objective and the measure adopted to achieve it.”<sup>582</sup>

490. To meet the first element—existence of a rational policy— the State must show that implementation of the policy occurred “following a logical (good sense) explanation and with the aim of addressing a public interest matter.”<sup>583</sup> Under the second prong, the tribunal must assess the “reasonableness” of the measure by examining “the nature of the measure and the way it is implemented.”<sup>584</sup> This requires the tribunal to assess the “correlation between the state’s policy objective and the measures adopted to achieve it.”<sup>585</sup> Where the correlation is “reasonable, proportionate, and consistent” a tribunal will find the measure to be reasonably related to a rational policy.<sup>586</sup> A measure can be reasonable only if it serves to further the stated policy objective.

491. For example, in *AES v. Hungary*, the respondent sought to justify the legislative reintroduction of administrative pricing for electricity generation.<sup>587</sup> Hungary advanced three theories on the reasonable relationship of its measures to rational public policies. First, it argued that the price decrees were necessary to ensure that generators would agree to reductions in the

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<sup>581</sup> CA-9, *Ioan Micula and others v. Romania*, ICSID Case No. ARB/05/20 (Award, 11 December 2013) (Lévy, Alexandrov, Abi-Saab) (“*Micula* (NAFTA)”), ¶ 525.

<sup>582</sup> CA-2, *AES Summit Generation Ltd. and AES-Tisza Erözü KRT v. Republic of Hungary*, ICSID Case No. ARB/07/22 (Award, 23 September 2010) (von Wobeser, Stern, Rowley) (“*AES*”), ¶¶ 10.3.7, 10.3.9.

<sup>583</sup> CA-2, *AES*, ¶ 10.3.8.

<sup>584</sup> CA-2, *AES*, ¶¶ 10.3.7, 10.3.9.

<sup>585</sup> CA-2, *AES*, ¶ 10.3.35.

<sup>586</sup> CA-2, *AES*, ¶ 10.3.36.

<sup>587</sup> CA-2, *AES*, ¶ 10.3.9.



contracted capacity of power purchase agreements to free up electricity to the parallel free market. The tribunal categorically rejected this proffered justification, holding “it cannot be considered a reasonable measure for a state to use its governmental powers to force a private party to change or give up its contractual rights.”<sup>588</sup>

492. Second, Hungary asserted that it had capped profits in response to pressure to recover state-aid provided to generators making luxury profits. The tribunal rejected this justification as well, reasoning that there was no evidence that Hungary had been directed to recover state aid by the agency responsible for administering state-aid.<sup>589</sup> The tribunal further noted that, even if the price decrees could be justified as measures in aid of the recovery of state-aid, they were unreasonable because the measures could not possibly achieve that objective. It explained the “cap on profits had no direct relation with state aid, because state aid occurs when the entity is receiving above-market prices {and} the elimination of above-market prices is not achieved by a cap on profits.”<sup>590</sup>

493. Third, Hungary asserted that the measures were aimed at capping “luxury profits” to alleviate the burden on electricity consumers.<sup>591</sup> The tribunal considered that the introduction of administrative pricing did present an effective way to implement this goal. It held that to the extent the government’s policy was to ensure that no producer achieved profits above a certain cap, these measures were reasonable to implement that aim, and the aim was a legitimate rational policy.<sup>592</sup>

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<sup>588</sup> CA-2, *AES*, ¶ 10.3.12.

<sup>589</sup> CA-2, *AES*, ¶ 10.3.17.

<sup>590</sup> CA-2, *AES*, ¶ 10.3.17.

<sup>591</sup> CA-2, *AES*, ¶¶ 10.3.20.

<sup>592</sup> CA-2, *AES*, ¶¶ 10.3.34 –10.3.35.

494. The tribunal then examined whether Hungary had implemented its policy in a consistent, fair, and even-handed manner. It concluded that Hungary had done so, finding that “the price established for each of the generators was reached using the same methodology.”<sup>593</sup> Although the resulting prices were less favorable for the claimant, the Tribunal found that these differences were “the logical result of a uniform methodology that was applied equally to all generators” and therefore did not discriminate against the claimant.<sup>594</sup> The tribunal therefore concluded that the pricing measures were justified.<sup>595</sup>

495. The jurisprudence thus highlights that a measure can be reasonably related to a legitimate government policy objective only if it is truly necessary to achieve the stated objective, rather than simply coincidentally useful to the State’s aims, and that the policy must be implemented in a uniform and consistent manner, without exercises of discretion that favor some over others.

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<sup>593</sup> CA-2, *AES*, ¶ 10.3.47.

<sup>594</sup> CA-2, *AES*, ¶ 10.3.50.

<sup>595</sup> Likewise, in *Micula v. Romania*, the tribunal applied the *AES* test and found that the respondent’s revocation of investment incentives provided to the claimant was justified where their elimination was necessary to achieve the state’s goal of accession to the EU.<sup>595</sup> The government had provided the investor these incentives in exchange for agreeing to operate the investment until 2018. As in *S.D. Myers*, the tribunal in *Micula* assessed the availability of alternative strategies for achieving the respondent’s stated policy goal. Ultimately, the tribunal found there was no way for Romania to preserve the incentives but still achieve accession. It therefore concluded the respondent acted reasonably in pursuit of its accession policy when it terminated the claimant’s incentives. Nonetheless, the *Micula* tribunal found that Romania’s continued enforcement of the investor’s *obligations*, after revocation of its incentives, was not reasonable and therefore violated the Treaty. The tribunal noted that the respondent could have abrogated or renegotiated these obligations without jeopardizing its EU accession. In other words, the State had failed to act consistently and even-handedly in the measure it used to implement a legitimate policy objective, thereby disqualifying its purported justification. CA-9, *Micula* (NAFTA), ¶¶ 815, 826, 827.

**B. Bases For Comparison**

496. In presenting its comparisons of the regulatory treatment BC Hydro and the BCUC afforded to the Celgar, Tembec, and Howe Sound NBSK pulp mills with respect to their access to embedded cost utility electricity while selling electricity, and applying the legal tests discussed above, Mercer and its expert Mr. Switlishoff analyze the following core questions:

1. What standard was applied in determining the degree of access?
2. What degree of access was afforded?
3. What methodology/calculations were used?
4. Did the Province or BC Hydro provide the mill with any compensation for agreeing to meet some or all of its own load?
5. Was the approach, and any explanations or justifications provided at the time, consistent with the Order G-38-01 policy the BCUC had put into effect?
6. What was the extent of the Province's or BC Hydro's discretion, and did it exercise that discretion less favorably for Celgar than for others?<sup>596</sup>

**1. Defining the Degree of Access**

497. As noted at the outset, there is no regulatory issue at all concerning access to embedded cost utility power while a self-generator is selling electricity it generates *in excess of its own load*, because a self-generator does not need access to utility-supplied power to meet its load while making such sales.<sup>597</sup> Moreover, the Province has imposed no restrictions on such sales, and the BCUC, in Order G-38-01, ordered BC Hydro to facilitate them. The only regulatory issue in this case concern's the self-generator's access to embedded cost utility electricity *while selling self-generated electricity*, which, by definition, occurs only with respect to *below-load* sales.

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<sup>596</sup> Switlishoff Expert Statement, ¶ 94.

<sup>597</sup> See also Switlishoff Expert Statement, ¶ 95.

498. Accordingly, in analyzing the Province’s treatment of both Howe Sound and Tembec, as Mr. Switlishoff explains, “the proper focus is on the percentage of the mill’s electric load that could be met by self-generation but which the mill is permitted to meet with embedded cost utility power while it is selling self generated power.”<sup>598</sup> Mr. Switlishoff refers to this factor as the “Below-Load Access Percentage.”<sup>599</sup>

499. As Mr. Switlishoff explains, for mills that do not generate more than their own load, this factor is calculated using the following formula:  $(\text{total generation} - \text{GBL}) / \text{total self-generation}$ .<sup>600</sup> For mills that do generate more than their load, the formula is as follows:  $(\text{load} - \text{GBL}) / \text{load}$ .<sup>601</sup> This Below-Load Access Percentage reflects the degree of access (as a percentage of the lower of load or generation)<sup>602</sup> the mill has to embedded cost utility electricity while it is selling its self-generated electricity.

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<sup>598</sup> Switlishoff Expert Statement, ¶ 96.

<sup>599</sup> Switlishoff Expert Statement, ¶ 96. As Mr. Switlishoff testifies, “It is appropriate to compare below-load access among mills on a *percentage* basis rather than an *absolute* basis because the Celgar, Tembec, and Howe Sound pulp mills represent mills of very different size and very different levels of investment in generation. An absolute measurement of below-load access would reflect these size and investment variables and not the practical impact of the Province’s regulatory treatment. Comparisons of Below Load Access Percentages, on the other hand, places all the mills on the same scale.” Switlishoff Expert Statement, ¶ 98.

<sup>600</sup> Total generation minus GBL reflects that portion of the mill’s generation that it does not have to use for self-supply, and thus the amount of electricity it may purchase from its utility at embedded cost rates to meet load. See Switlishoff Expert Statement, ¶ 97.

<sup>601</sup> Mills generating above their load require access to power to meet their load only in the amount of their load, so load is used in the calculation instead of total generation whenever it is less. Switlishoff Expert Statement, ¶ 97 n. 14.

<sup>602</sup> It is necessary to measure below-load access relative to the lower of load or total generation because the self-supply obligation embodied in a GBL necessarily is limited by total generation. Put another way, the objective is to measure the amount of electricity a self-generator may arbitrage, and a self-generator cannot arbitrage electricity it does not produce.

500. Because the evaluation concerns the extent of below-load access BC Hydro and/or the government has authorized, Mercer's focus is on the degree of access afforded at the time such authorization was provided, and based on the information available to BC Hydro and the BCUC at the time it made such decisions. Thus, if they set a GBL of 50 GWh/year for a mill with a load of 150 GWh/year, and expected annual generation of 100 GWh/year (based, for example on the level of firm energy sales plus its GBL as set out in an EPA), the Below Load Access Percentage would be 50 percent (100 total generation - 50 GBL/ 100 total generation).<sup>603</sup> The percentage of access actually utilized from year to year is likely to fluctuate based on changes in actual generation, plant outages, mill load, etc., but these variations are caused by mill events and behaviors, and not the BC Hydro or BCUC's regulatory measure concerning authorization.<sup>604</sup>

501. As established earlier, and as Mr. Switlishoff confirms, Celgar's Below-Load Access Percentage is zero.<sup>605</sup> Both by virtue of Order G-48-09, which by its terms denied Celgar access to any utility-supplied embedded cost power while it is selling power, and the restrictions imposed by BC Hydro in Celgar's 2009 EPA, fixing Celgar's GBL at the level of its 2007 load

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<sup>603</sup> Switlishoff Expert Statement, ¶ 97.

<sup>604</sup> See Switlishoff Expert Statement, ¶ 96. Put another way, both in evaluating Celgar's Below-Load Access Percentage, and those of other comparators, Mercer limits its analysis to the impact of the measure at the time it was imposed. The load and generation parameters involved are variable, and change over time, both for Celgar and for comparators, thus presenting a "moving target." As the objective here is to examine whether Canada has afforded different treatment, the relevant question is the "practical impact" at the time of the measure, based on the circumstances existing at the time of the measure. See, e.g., CA-10, *Merrill*, ¶ 80 (noting the need to show "practical impact").

<sup>605</sup> Switlishoff Expert Statement, ¶ 99.

of 349 GWh/year, Canada has not allowed Celgar access to embedded cost utility electricity while selling electricity.<sup>606</sup>

**2. The Lack of Transparency and Difficulty in Analyzing the Province’s Regulatory Treatment of Other Pulp Mills**

502. Before presenting its analysis of the treatment afforded to Tembec and Howe Sound, Mercer notes the difficulties it faced in determining how BC Hydro treated other mills and the reasons why BC Hydro afforded such treatment. As noted above, BCUC Order G-38-01 largely left it to “negotiations” between BC Hydro and its self-generating customer to determine a GBL — the amount of electricity a self-generator would have to generate and use to meet its own industrial load before it would be afforded access to BC Hydro-supplied electricity at embedded cost rates so that it could sell electricity generated above its GBL. As it developed, these “negotiations” all took place when the self-generator was negotiating to sell self-generation output to BC Hydro. This is not a transparent process. The resulting EPA or similar-type agreement, as noted, is kept confidential by BC Hydro and the seller. The GBL is not released

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<sup>606</sup> Switlshoff Expert Statement, ¶ 99. Mercer notes that, as it happens, Celgar’s load has grown slightly since 2007, which means that its GBL currently is slightly less than its load. As explained above, Mercer does not consider the minor impact of this development, nor does it consider post-EPA developments at other mills, as its focus is the authorization provided by BC Hydro and the BCUC based on the information they had at the time of their GBL determination.

The impact of any change in load is the same for Celgar, Howe Sound, and Tembec. If a self-generator’s actual load decreases over time, the effect of the static GBL is to reduce its access to below-load energy. If a self-generator’s actual load increases, the effect of the static GBL is to afford it greater access.

[REDACTED]

See Merwin Witness Statement, ¶ 125 n.61, Annex A.

publicly, nor is any documentation concerning how the GBL was determined. There is no public input, nor can self-generator “A” meaningfully challenge the GBL awarded to self-generator “B” as unfair or unduly discriminatory in comparison to its own GBL, because A has no idea what GBL B has been given, how it was determined, or the underlying data upon which it was based.

503. Even though Mercer requested from Canada all documents concerning the setting of GBLs for other pulp mills, subject to the terms of the Tribunal’s Confidentiality Order, its task of analyzing and understanding those GBLs was not an easy one in light of BC Hydro’s utter lack of any written rules, policies, and procedures governing its approach to GBLs. On the one hand, it generally is a straightforward task to identify the GBL, as it is specified in the contractual documents. On the other hand, analyzing that GBL and determining the basis on which it was set, and the underlying generation, load, and energy purchase information relied upon in such determination, is an extremely difficult task in light of the absence of any BC Hydro standardized documentation or analysis. BC Hydro provided thousands of documents, many of which are undated and the authors not identified, and counsel was left to search for whatever documents existed that may have memorialized, explained, or referred to the GBL determination approach. Counsel was left to piece together a jigsaw puzzle for each mill with no picture as a guide, and no segregation of the pieces relevant to a particular mill.<sup>607</sup> It could not obtain explanations or clarifications from BC Hydro.

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<sup>607</sup> See also Switlischoff Expert Statement, ¶ 102 (“While I was provided access to the contracts, and thus could identify the GBL used, it frequently was difficult to ascertain how the GBL was computed. I could find no evidence that BC Hydro used any uniform format or template for analyzing the generation, load, purchase, and sale data used in its GBL calculation, or memorializing the bases for its GBL decisions. I had to search for needles in a haystack, and in at least one instance, could find nothing.”).

504. To be perfectly clear, in determining GBLs for different pulp mills, BC Hydro did not utilize any common document or template. It did not create a common justification report or memo outlining its approach in each case. It utilized no common template for gathering or analyzing mill generation, load, or electricity purchase and sale data. Mercer could locate no written BC Hydro procedure even requiring anyone involved in setting GBLs to document their approach in individual cases, and thus precious little documentation exists in many cases. Mercer could locate no evidence of any common internal review procedure or process, or any process or procedures intended to ensure that one mill was not treated more favorably than another.<sup>608</sup> As noted, it found no evidence that BC Hydro ever compared how it treated one mill to how it treated other mills.

505. For some mills, there might be a spreadsheet or a memorandum with a calculation. For others, there might be an email containing some descriptive information, undated handwritten notes by an unidentified author, or nothing at all. There were numerous instances in which multiple documents contained potentially relevant data, for example historical generation data, but different documents contained different figures for what purported to be the same variable. As well, there frequently was no way to determine if a document reflected a final determination or a draft that was not actually relied upon.

506. Mercer therefore apologizes in advance in case it should arise that it has misconstrued a document, or missed a document, or otherwise could not figure out what BC Hydro did or why.

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<sup>608</sup> See also Switliff Expert Statement, ¶ 100 (“There is a complete lack of transparency in BC Hydro’s establishment of GBLs.”).



**C. BC Hydro and the BCUC Afforded Tembec's Skookumchuck Mill More Favorable Treatment**

**1. The Province's Regulatory Treatment of the Tembec Skookumchuck Pulp Mill**

507. The Skookumchuck pulp mill originally opened in 1968, and is a relatively small NBSK pulp mill with the capacity to produce 255,000 metric tons of pulp annually. As previously noted, the mill had operated with a 15 MW turbine generator, until its replacement in 2001 with a 43.5 MW (54 MVA) generator. Prior to 2001, the generator had been powered by a recovery boiler and a power boiler. In 2001, the mill installed a hog fuel boiler and idled the power boiler, such that the new generator was powered by the recovery boiler (burning black liquor) and the hog fuel boiler (burning hog fuel).<sup>609</sup>

508. The mill's own electric load has fluctuated slightly from year to year, but, according to BC Hydro documents, generally has been around 26 MW.<sup>610</sup> BC Hydro documents also indicate that before 2001, the preexisting generator had been running at about 12 MW,<sup>611</sup> and that such self-generation had consistently been used to meet the mill's own load.<sup>612</sup> With the installation of its new generator in 2001, after it took over Purcell's 1997 EPA, Tembec became one of only two pulp mills in BC that had made sufficient investments in generation assets such

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<sup>609</sup> See C-113, Email from Chris Lague, Project Engineer and Energy Coordinator, Tembec, to Matt Steele (10 March 2009). [REDACTED]

<sup>610</sup> See C-34, Email from Lester Dyck to Leon Cender, Judy Baum, and Matt Steele (15 September 2009).

<sup>611</sup> C-34, Email from Lester Dyck to Leon Cender, Judy Baum, and Matt Steele (15 September 2009) at 2.

<sup>612</sup> C-34, Email from Lester Dyck to Leon Cender, Judy Baum, and Matt Steele (15 September 2009) at 2.

that it had the generator capacity and steam resources to generate more electricity than its own facility load. Celgar is the other.<sup>613</sup>

a. Arbitrage and Re-Pricing of Self-Generation Under Tembec's 1997 EPA

509. As already noted, the 1997 EPA with BC Hydro enabled Tembec to access BC Hydro embedded cost power for the first 10.8 MW of its load so that it could sell that first 10.8 MW of its self-generated energy to BC Hydro. While the mill had been generating at around 12 MW in years prior to 2001, and using all of that energy to supply its own load, the mill was not required to continue to meet its load at historical levels, or, indeed, at any level. The mill was instead permitted to arbitrage its first 10.8 MW of self-generated electricity by accessing embedded cost power from BC Hydro and selling self-generated energy back to BC Hydro. The term of this EPA ran from 2001 to September 2021, with Tembec effectively having a right to terminate early after ten years.

510. [REDACTED]

[REDACTED] but as Mr. Switlishoff testifies, no record of its approval by the BCUC could be found. In any event, as documented in the 1996 "Report of the Independent Power Producers Review Panel," the BC Government had authorized BC Hydro to negotiate with Purcell, following BC's direction to BC Hydro to issue its 1994 RFP.<sup>614</sup>

511. [REDACTED]

[REDACTED] Prior to 2001, it had been using its self-generated electricity of around 12 MW to meet its

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<sup>613</sup> C-34, Email from Lester Dyck to Leon Cender, Judy Baum, and Matt Steele (15 September 2009); C-139, Illustrations Depicting MW from Before the EPA Award, After the EPA Award and Post-COD, and After the EPA Amendment.

<sup>614</sup> See C-205, Report of the Independent Power Producers Review Panel (27 August 1996) at 3; see also Switlishoff Expert Statement, ¶ 26.

load. That energy thus was effectively “priced” at Tembec’s avoided cost of BC Hydro’s RS 1821 rate, then around C\$ 25.99/MWh (plus capacity charges). [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

512. Neither the Province nor BC Hydro subjected the mill to a net-of-load standard, or any other standard, restricting its access to embedded cost utility power while it was selling power. As BC Hydro has summarized it, [REDACTED]

[REDACTED]<sup>615</sup> As Mr. Switlishoff concludes, the mill’s “Below-Load Access Percentage” thus was [REDACTED] percent.<sup>616</sup> All electricity it generated up to 10.8 MW could be sold, and the mill could access BC Hydro embedded cost power for its full load. [REDACTED]

[REDACTED]

[REDACTED] As explained above, after meeting its load, Tembec could sell a small increment, up to 3.2 MW, to BC Hydro at [REDACTED]

[REDACTED] )

513. Documents provided by Canada appear to indicate that [REDACTED]

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<sup>615</sup> C-99, Tembec Justification Report, at Canada Bates 139678. *See also* C-34, Email from Lester Dyck to Leon Cender, Judy Baum, and Matt Steele (15 September 2009) [REDACTED]

<sup>616</sup> Switlishoff Expert Statement, ¶ 149.

[REDACTED]

[REDACTED] 617

b. Tembec's Unsuccessful Bid in the Bioenergy Phase I Process

514. In 2007-08, Tembec participated in BC Hydro's Bioenergy Phase I power call. It submitted a bid, but it was not selected as one of the four low bidders winning EPAs "as its bid price was higher than the prices for the awarded EPAs."<sup>618</sup> (Indeed, Tembec's bid was ranked [REDACTED] of 20 proponents.)<sup>619</sup>

515. As part of its bid package, Tembec had proposed to sell BC Hydro seasonally << [REDACTED]

[REDACTED]

516. The seasons were designated by BC Hydro, and correspond to the pricing seasons BC Hydro typically uses in its EPAs due to the previously noted seasonal demand differences it faces. Significantly, [REDACTED]

[REDACTED]

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<sup>617</sup> See C-34, Email from Lester Dyck to Leon Cender, Judy Baum, and Matt Steele (15 September 2009) [REDACTED]

<sup>618</sup> C-99, Tembec Justification Report, at Canada Bates 139677. See also Switlischoff Expert Statement, ¶ 156.

<sup>619</sup> C-63, BC Hydro, Report on Bioenergy Call Phase I: Request for Proposals (17 February 2009) at 15. [REDACTED]

<sup>620</sup> C-142, Seasonally Firm Energy Profile - Phase 2, BC Hydro Bioenergy Call for Power (Phase I) - Appendix 3A - Commercial Proposal (15 May 2008).

[REDACTED]

[REDACTED]

517. On 2 May 2008, BC Hydro wrote to Tembec concerning its Bioenergy Phase I bid, notifying Tembec that Hydro had determined that its GBL for purposes of that tender would be [REDACTED] GWh/year.<sup>621</sup> As Mr. Switlishoff suggests, this appears to have been calculated

by [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

518. BC Hydro's Bioenergy Phase I concluded in early 2009, and, as noted above, BC Hydro made it known in February 2009 that the average firm energy price for the four winners had been C\$ 100.25/MWh, the average levelized firm energy price C\$ 101/MWh, and the average adjusted firm energy price of C\$ 111.68. Tembec's unsuccessful bid had been evaluated

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<sup>621</sup> C-143, Letter from BC Hydro RFP Administrator to Christian Lague, Tembec Enterprises Inc., *BC Hydro Bioenergy Call for Power (Phase I)* (2 May 2008). See also Switlishoff Expert Statement, ¶ 153.

<sup>622</sup> See Switlishoff Expert Statement, ¶¶ 154-55.

<sup>623</sup> Switlishoff Expert Statement, ¶ 155. See also C-112, Tembec Skookumchuck CBL/GBL Analysis (6 April 2009) at 3 [REDACTED]  
[REDACTED] See *supra* ¶ 173 for a description of CBL.

as providing a firm energy price of [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]<sup>624</sup> Tembec was then in its eighth year of its 1997  
EPA, and Tembec was then receiving an average of around [REDACTED] for its  
biomass energy, computed [REDACTED]

[REDACTED]<sup>625</sup>

c. *Tembec's 2009 Shutdown,  
Renegotiation, and the Re-Pricing of its  
Self-Generation under a New 2009 EPA*

519. Around the beginning of March 2009, in the midst of the economic downturn, [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]<sup>628</sup>

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<sup>624</sup> C-99, Tembec Justification Report, at Canada Bates 139682.

<sup>625</sup> Cf. C-144, Inter-office Memorandum from David G. Keir to Lester Dyck, Frank Lin, Sylvia von Minden, and CBL Governance Team re: Tembec Skookumchuck Pulp Operations - CBL/GBL/EPA Analysis (8 April 2009).

<sup>626</sup> C-34, Email from Lester Dyck to Leon Cender, Judy Baum, and Matt Steele (15 September 2009).

<sup>627</sup> C-144, Inter-office Memorandum from David G. Keir to Lester Dyck, Frank Lin, Sylvia von Minden, and CBL Governance Team re: Tembec Skookumchuck Pulp Operations - CBL/GBL/EPA Analysis (8 April 2009).

<sup>628</sup> C-144, Inter-office Memorandum from David G. Keir to Lester Dyck, Frank Lin, Sylvia von Minden, and CBL Governance Team re: Tembec Skookumchuck Pulp Operations - CBL/GBL/EPA Analysis (8 April 2009).

520. Even though Tembec's bid price was too high to secure an EPA through BC Hydro's Bioenergy Phase I process [REDACTED], and even though Tembec had an existing 1997 EPA already requiring it to sell 10.8 MW of its self-generated electricity to BC Hydro at a base price of [REDACTED] [REDACTED], BC Hydro awarded Tembec a new EPA that not only provided Tembec with higher prices but also permitted Tembec to sell more energy to BC Hydro and [REDACTED] BC Hydro did so outside of any established channel for power purchases, and without competitive bidding.<sup>629</sup>

521. On 13 August 2009, BC Hydro and Tembec executed a new EPA, with a 10-year term, on terms highly favorable to Tembec. First, the 2009 EPA provides [REDACTED] [REDACTED] [REDACTED]<sup>630</sup> This level was lower than Tembec's typical mill load, which BC Hydro pegged at 26 MW,<sup>631</sup> even though the EPA was signed after the issuance in May 2009 of BCUC Order G-48-09 imposing a net-of-load standard on Celgar. Thus, BC Hydro did not determine Tembec's GBL applying a net-of-load standard.

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<sup>629</sup> See Switlishoff Expert Statement, ¶ 158.

<sup>630</sup> Like the Celgar EPA, the 2009 Tembec EPA prohibits Tembec from selling energy generated below its GBL to any other person, [REDACTED] [REDACTED] 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), ¶ 7.4 ("2009 Tembec EPA").

<sup>631</sup> See C-139, I Illustrations Depicting MW from Before the EPA Award, After the EPA Award and Post-COD, and After the EPA Amendment; C-99, Tembec Justification Report, at Canada Bates 139685.

522. Correspondingly, the EPA provided for Tembec to sell firm energy to BC Hydro in the amounts of [REDACTED] [REDACTED], for an annual average of 24.40 MW/h.<sup>632</sup>

523. None of the documentation Canada has provided to Mercer provides any explanation of, or justification for, the strange seasonal shaping of Tembec's GBL.<sup>633</sup> Its existence likewise is neither mentioned nor justified in the 24 September 2009 Justification Report ("Tembec Justification Report") Tembec provided to the BCUC in order to obtain needed BCUC approval of the EPA.<sup>634</sup>

524. The derivation of the annual average GBL of 14 MW also is unusual. Indeed, the 14 MW average GBL was [REDACTED] [REDACTED], and thus also appears to be inconsistent with the historical usage GBL standard.

525. In fact, BC Hydro did not use any actual recent calendar year generation or load data in determining Tembec's new GBL, as it had for Celgar. Indeed, it did not use any historical operational data at all. BC Hydro instead determined Tembec's GBL in 2009 based on a completely hypothetical analysis of how much electricity the Skookumchuck mill might have generated prior to 2001, under its configuration at that time (without the hog boiler but with a recovery boiler and a power boiler), and assuming the mill was running the new turbine generator it installed in 2001, rather than its old 15 MW turbine generator that actually had been

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<sup>632</sup> C-145, 2009 Tembec EPA, at app. 2. *See also* C-99, Tembec Justification Report, at Canada Bates 139678 ("Under the 2009 EPA, BC Hydro expects to receive 24.4 MWh/h of firm energy.").

<sup>633</sup> Switlishoff Expert Statement, ¶ 159.

<sup>634</sup> *See* C-99, Tembec Justification Report.



running at the time.<sup>635</sup> In somewhat simplified terms, as Mr. Switlishoff explains, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>636</sup>

526. The effect of BC Hydro's reliance upon pre-2001 capabilities was not only to grandfather and maintain the favorable treatment Tembec had received under the 1997 EPA, implemented in 2001, and not only to ignore completely the mill's actual recent operating history, but also to go above and beyond and provide even more favorable treatment. Effectively, BC Hydro considered how the mill would have operated, under its current configuration, without the 1997 EPA entirely. That meant that Tembec was not even required to maintain the level of self-generation it had been using to meet load under the 1997 EPA.

527. By setting the GBL lower than the amount of self-generated electricity Tembec had been using to meet its own load under the 1997 EPA, BC Hydro afforded Tembec increased access to embedded cost utility electricity so as to enable it to increase its electricity sales to BC Hydro at market prices.<sup>637</sup>

528. On 13 November 2009, the BCUC approved Tembec's 2009 EPA, and it thus took effect at that time.<sup>638</sup>

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<sup>635</sup> C-99, Tembec Justification Report, at Canada Bates 139678.

<sup>636</sup> Switlishoff Expert Statement, ¶ 164.

<sup>637</sup> Switlishoff Expert Statement, ¶ 164 (characterizing this effect as "the greatest anomaly of the 2009 Skookumchuck EPA").

<sup>638</sup> C-146, BCUC, Order Number E-16-09 (13 November 2009).

(i) Increased Arbitrage and Increased Access to BC Hydro Embedded Cost Power

529. As Mr. Switlishoff finds, the 2009 EPA permitted Tembec to increase its firm energy sales to BC Hydro from 10.8 MW/h to an average of [REDACTED], or by some [REDACTED], without Tembec making any new or incremental investment in generation assets.<sup>639</sup>

530. Data provided by Canada also confirm that these increased sales were facilitated by BC Hydro affording Tembec increased access to BC Hydro embedded cost power under RS 1821/1823. These data indicate that Tembec purchased firm energy from BC Hydro under RS 1821/1823 in the amounts of [REDACTED].<sup>640</sup> Thus, in the three years before the 2009 EPA took effect, Tembec was purchasing an average of [REDACTED] of firm energy from BC Hydro.<sup>641</sup> (Its purchases of backup, non-firm energy were not significant.)

531. However, in 2010, under the new EPA, the volume of BC Hydro firm energy purchased by Tembec [REDACTED].<sup>642</sup> Thus, BC Hydro and the BCUC (which approved and made effective the EPA) permitted Tembec to engage in greatly increased arbitrage under the new EPA, as Tembec relied upon

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<sup>639</sup> Switlishoff Expert Statement, ¶ 165.

<sup>640</sup> C-163, Skookumchuck Generation - External (Restricted Access) (2006-2011) (data produced by Canada 12/2/2013).

<sup>641</sup> See also Switlishoff Expert Statement, ¶ 166.

<sup>642</sup> Switlishoff Expert Statement, ¶ 167; C-163, Skookumchuck Generation - External (Restricted Access) (2006-2011) (data produced by Canada 12/2/2013). BC Hydro enabled this to occur by setting Tembec's GBL far below the levels of self-generation it had been using to meet its own load in recent years, and the Province authorized the GBL through BCUC approval of the EPA.

increased purchases of firm energy from BC Hydro to facilitate its increased energy sales volumes to BC Hydro.

532. This result is, on its face, flatly inconsistent with Order G-38-01's explicit directive to BC Hydro not to permit increased access to BC Hydro embedded cost power to facilitate sales by a self-generating customer.<sup>643</sup> [REDACTED]

[REDACTED]

[REDACTED]

Under the 2009 EPA, Tembec's self-supply requirement was much less, and thus its access to embedded cost power to run the mill, much greater.

533. Moreover, at the time, BC Hydro neither acknowledged not explained the fact that Tembec's access to embedded cost power (and its opportunity for arbitrage) would increase under the 2009 EPA, to facilitate sales of self-generated electricity at market rates. To the contrary, 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.<sup>644</sup> The document is reproduced in Figure 13 below:

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<sup>643</sup> See also Switliff Expert Statement, ¶ 167 ("This *increased* arbitrage is in direct contravention with the directive in Order G-38-01, which prohibits increased access to BC Hydro embedded cost electricity to facilitate sales by a self-generating customer.").

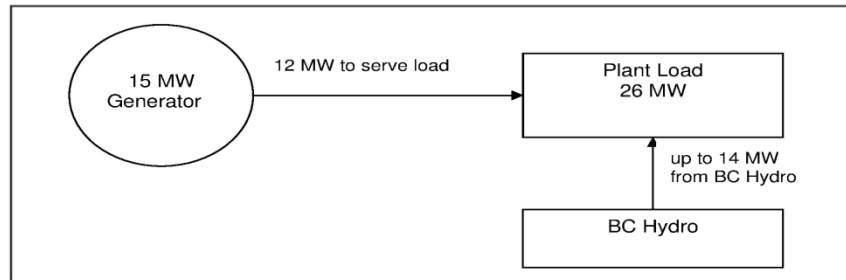
<sup>644</sup> C-99, Tembec Justification Report, at Canada Bates 139685. This September 24, 2009 document shows the mill's plant load to be 26 MW before the 1997 EPA, after the 1997 EPA, and after the 2009 EPA. It indicates that under the 1997 EPA, this load would be supplied "0 to 26 MW from BC Hydro (*typically, up to 14 MW*)." (Emphasis added.) It further indicates that, under the 2009 EPA, the plant load of 26 MW would be supplied "up to 12 MW from BC Hydro" (which was equal to the mill load of 26 minus the GBL of 14 MW). The document thus implies that Tembec would obtain *reduced* access to BC Hydro embedded cost power under the new EPA when in fact BC Hydro knew that Tembec would be afforded much *greater* access. BC Hydro's reference to "typically, up to 14 MW" in the pre-2009 EPA period was grossly misleading, [REDACTED]

**Figure 13**  
**BC Hydro Energy Flow Analysis for Tembec 2009 EPA**

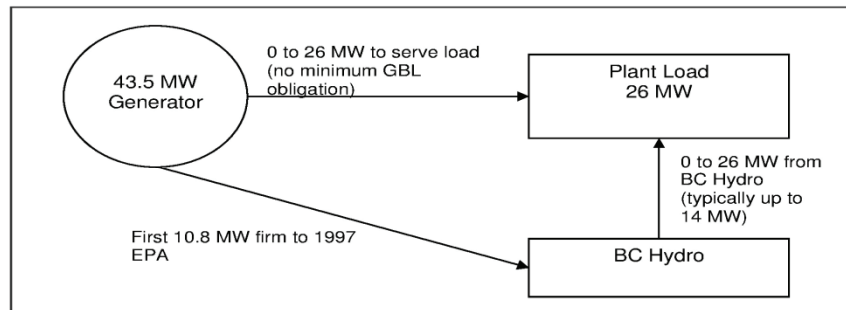
Attachment 1

**Tembec Energy Flows**

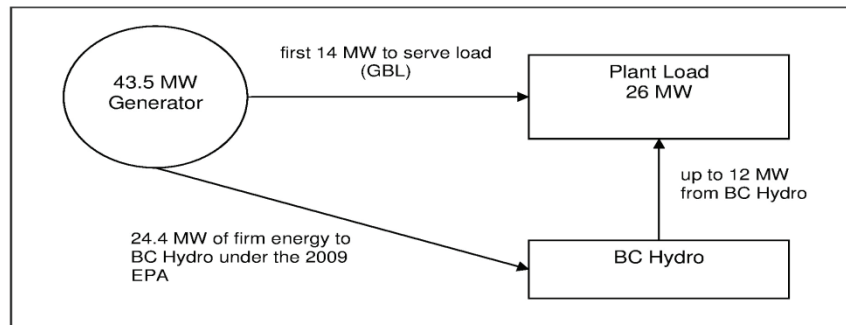
**Before 1997 EPA Award**



**After 1997 EPA Execution and Post-COD**



**After 2009 EPA**



534. It thus appears that BC Hydro understood that the 2009 EPA was not consistent with the directive of Order G-38-01, and that it submitted misleading information to the Commission. BC Hydro's energy flow diagram disguised the fact that BC Hydro had agreed to

afford Tembec increased access to embedded cost power, for purposes of obtaining Commission approval. BC Hydro plainly did not affirmatively disclose that critical fact.

535. To quantify the degree of below-load access BC Hydro and the BCUC afforded Tembec, one must first recognize that Tembec has sufficient generation capacity to produce more than its own load. Thus, as explained above, Tembec's "Below-Load Access Percentage" must be computed using the formula  $(\text{load} - \text{GBL}) / \text{load}$ . The calculation, as Mr. Switlishoff confirms, is [REDACTED]<sup>645</sup> Even though, prior to the 2009 EPA, [REDACTED], BC Hydro afforded Tembec access to embedded cost electricity to meet [REDACTED] percent of its load. Put another way, Tembec was permitted to arbitrage [REDACTED] percent of the electricity it generated below its load. (Celgar's percentage is zero, and its GBL did not provide it with increased access to utility power at embedded cost rates.)

(ii) Additional Special Access Benefits

536. Finally, the 2009 EPA provided Tembec with an additional special GBL benefit in the form of a specially-shaped GBL that bore no resemblance to its historical generation

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<sup>645</sup> Switlishoff Expert Statement, ¶ 162. As Mr. Switlishoff explains, Mercer bases its calculation on hourly rather than annual data because the 2009 Tembec EPA employs an hourly GBL. Switlishoff Expert Statement, ¶ 162. We also use BC Hydro's depiction of the plant's average hourly load rather than actual load data, because (1) the load data supplied to Mercer by BC Hydro for Tembec are highly problematic (due to problems with both the hourly generation data and the formula used to compute load), and (2) Mercer does not in any event know the actual number of hours in which the plant operated, so as to enable computation of actual average load per hour. The actual data nonetheless support BC Hydro's figure of 26 MW/hr upon which Mercer relies. For example, in 2007 -- a year in which the plant had no known extraordinary shutdowns -- [REDACTED]

patterns, [REDACTED]  
[REDACTED]<sup>646</sup> The highly unusual seasonal  
shaping of the GBL [REDACTED] meant that  
Tembec could buy more than [REDACTED] as much utility energy (the cost of which did not vary  
based on time of year) and simultaneously sell to BC Hydro almost [REDACTED] as much self-  
generated power) in the higher-demand, higher-priced winter period. Under the EPA, Tembec  
would sell [REDACTED]

[REDACTED]<sup>647</sup>

537. This provided an additional benefit to Tembec, due to the EPA's energy pricing  
structure. As with most BC Hydro EPA's at issue in this proceeding, the 2009 EPA contains a

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<sup>646</sup> BC Hydro-supplied data shows Tembec's generation levels to be as follows:

[REDACTED]

<sup>647</sup> C-145, 2009 Tembec EPA, at app. 2.

pricing structure consisting of a base rate referred as the Firm Energy Price (“FEP”), here [REDACTED] MWh, that is multiplied by a Time of Delivery Factor (“TDF”). The Time of Delivery Factor (“TDF”) is expressed as a percentage, and varies by month (with higher TDFs, for example, in the high demand winter months) as well as by time of day (with different on-peak and off-peak percentages). As relevant here, the on-peak TDF for the months when Tembec could sell the most energy [REDACTED] ranged from [REDACTED] percent to [REDACTED] percent. The on-peak TDF for the months when Tembec could sell the least energy [REDACTED] ranged from [REDACTED] percent to [REDACTED] percent.<sup>648</sup>

538. As Mr. Switlishoff explains, the impact of Tembec’s skewed seasonal GBL shaping is roughly equivalent to reducing Tembec’s GBL from an average of 14 MW/hr to an average of [REDACTED], and increasing its Below-Load Access Percentage from [REDACTED] percent to [REDACTED] percent.<sup>649</sup>

## **2. The Treatment BC Hydro and the BCUC Afforded Tembec is More Favorable Than the Treatment They Afforded to Celgar**

539. Plainly, BC Hydro and the BCUC afforded to Tembec treatment more favorable than they afforded to Celgar, with respect to access to embedded cost utility power while selling power, both under Tembec’s 1997 EPA and under Tembec’s 2009 EPA.

540. With respect to the 1997 EPA, and as confirmed by Mr. Switlishoff, the following differences in treatment exist:

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<sup>648</sup> C-145, 2009 Tembec EPA, at app. 3 Schedule A.

<sup>649</sup> Switlishoff Expert Statement, ¶¶ 159, 163. [REDACTED]

>> .

1. The Province and BC Hydro subjected Celgar to a net-of- load standard, under which no below-load access could be afforded. The Province and BC Hydro subjected Tembec to no standard in the 1997 EPA. The EPA contains no GBL, and Tembec was under no obligation to use its self-generated electricity to meet any of its own load. Tembec was permitted to access and arbitrage embedded cost utility electricity for the first kWh of electricity it sold to BC Hydro.
2. The degree of below-load access the Province and BC Hydro afforded to Celgar was 0.0 percent. The degree of below-load access the Province and BC Hydro afforded to Tembec under the 1997 EPA was [REDACTED] percent.<sup>650</sup>

541. With respect to the 2009 EPA, as Mr. Switlishoff also finds, the following differences in treatment exist:

1. The Province and BC Hydro subjected Celgar to a net-of- load standard, under which no below-load access could be afforded. The Province and BC Hydro ostensibly subjected Tembec to a historical usage standard in the 2009 EPA, under which substantial below-load access was afforded.
2. The degree of below-load access the Province and BC Hydro afforded to Celgar was 0.0 percent. The degree of below-load access the Province and BC Hydro afforded to Tembec under the 2009 EPA was [REDACTED] percent considering the special seasonal shaping afforded to Tembec, and [REDACTED] percent absent such impact.
3. In terms of methodology and calculations, although Celgar's EPA was negotiated in 2008, and Tembec's in 2009, BC Hydro utilized a calendar year 2007 baseline period for Celgar, whereas it used an earlier, [REDACTED] baseline period for Tembec.
4. Within those divergent baseline periods, BC Hydro measured Celgar's mill load, rather than the amount of self-generation Celgar had used to serve load, which was less. For Tembec, BC Hydro purported to measure the hypothetical amount of generation the mill would have used to serve load, based on the efficiency of a new generator it had not installed during the baseline period.
5. BC Hydro used actual generation and/or load levels in computing its GBL for Celgar. BC Hydro did not base its GBL for Tembec on any actual historical load or generation levels, instead using a hypothetical analysis of a steam and generation configuration that never actually existed.

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<sup>650</sup> Switlishoff Expert Statement, ¶¶ 191, 210.



6. BC Hydro used a one-year, calendar year, baseline period in determining Celgar's GBL. It did not use any specific time period in computing Tembec's GBL.
7. BC Hydro determined Celgar's seasonal GBL by converting its annual GBL (*i.e.*, its 2007 load) to an average daily amount, and then multiplying that daily average by the number of days in each season. The seasonal shaping of Tembec's GBL has no basis in reality.<sup>651</sup>

**D. BC Hydro Afforded Howe Sound More Favorable Treatment**

**1. The Province's Regulatory Treatment of the Howe Sound Port Mellon Pulp Mill**

*a. Arbitrage Unrelated to the Mill's Historical Generation Levels Under the 1989 Generation Agreement*

542. As set forth in Section III.C.1 above, under its 1989 Generation Agreement with Howe Sound, BC Hydro had agreed to provide Howe Sound with an interest free loan of [REDACTED] to be used to add significant new steam and generation capacity at Howe Sound's kraft pulp mill, in exchange for Howe Sound's agreement [REDACTED], which electricity Howe Sound was required to use to meet the electric load of its Port Mellon operations (which included not only the kraft mill but also the newsprint and mechanical pulp mills). At the time of the agreement, the average combined load of the three mills was projected to be [REDACTED] MWh, or some [REDACTED] GWh/year.<sup>652</sup>

543. Howe Sound installed two generators with a nameplate capacity of [REDACTED] MW, and an expected practical capacity of [REDACTED] MW.<sup>653</sup> Thus, Howe Sound did not install

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<sup>651</sup> See Switlshoff Expert Statement, ¶¶ 193, 210.

<sup>652</sup> C-102, HSPP, A.F.E. - H.S.P.P. 88-17: Co-Generation - Revision 1 (December 1990) at 24.

<sup>653</sup> C-103, 1989 Generation Agreement, at app. A and § 4.06; C-102, HSPP, A.F.E. - H.S.P.P. 88-17: Co-Generation - Revision 1 (December 1990) at 1, 24.

sufficient generation capacity to meet its own load, and it was anticipated under the Generation Agreement that BC Hydro would continue to supply at least [REDACTED] percent of Howe Sound's average electricity needs<sup>654</sup> (and a higher percentage of its peak needs).

544. Howe Sound [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

545. Because Howe was not meeting the level of generation required under the Generation Agreement, [REDACTED]

[REDACTED]

<sup>654</sup> Calculated as [REDACTED] .

<sup>655</sup> C-104, BC Hydro Generation Shortfall Briefing, Discussion with Larry Bell, at 1-2. *See also* C-25, Letter from HSPP to BC Hydro (16 June 2009).

<sup>656</sup> C-104, BC Hydro Generation Shortfall Briefing, Discussion with Larry Bell, at 2.

<sup>657</sup> C-172, Handwritten Notes titled "Re: HSLP & GA" (regarding the Termination Agreement between HSPP and BC Hydro (7 September 2010)) (numbers are reflected in the handwritten notes produced by Canada).

[REDACTED]

546. [REDACTED]

[REDACTED]

547. As Mr. Switlishoff observes, it is difficult to discern from these 1997-2000 generation data, or any set of annual data, how BC Hydro determined the appropriate GBL to be [REDACTED] MW, which is equivalent to [REDACTED]<sup>662</sup> Moreover, counsel for Claimant have not been able to identify any documents produced by Canada explaining the basis for the [REDACTED] MW/hour GBL. [REDACTED]

[REDACTED]

[REDACTED] The GBL thus is demonstrably unrelated to any calendar year period (the baseline approach BC Hydro used for Celgar), or any longer historical period. [REDACTED]

[REDACTED]

548. [REDACTED]

[REDACTED]

[REDACTED] Nonetheless, the Commission's 2001 G-38-01 Order directed BC Hydro to allow Howe Sound to sell electricity from generation resources that were

<sup>658</sup> C-104, BC Hydro Generation Shortfall Briefing, Discussion with Larry Bell, at 2.

<sup>659</sup> C-104, BC Hydro Generation Shortfall Briefing, Discussion with Larry Bell, at 1.

<sup>660</sup> C-104, BC Hydro Generation Shortfall Briefing, Discussion with Larry Bell.

<sup>661</sup> C-104, BC Hydro Generation Shortfall Briefing, Discussion with Larry Bell, at 1.

<sup>662</sup> Switlishoff Expert Statement, ¶¶ 119-120.

economically idle due to high natural gas prices, and required BC Hydro to serve that portion of Howe Sound's own electric load that could otherwise have been served by that generation.

549. Because BC Hydro set Howe Sound's GBL at [REDACTED], or an equivalent of [REDACTED] GWh/year, and its practical generation capacity was around [REDACTED] MW (approximately equivalent to [REDACTED] GWh/year from the 1989 Generation Agreement), this meant that Howe Sound would have to generate only [REDACTED] to meet its own load, that it could sell the remaining [REDACTED] MW of its self-generation (which Howe was obligated to use to meet its load under the 1989 Generation Agreement), and that BC Hydro would supply Howe Sound with that [REDACTED] MW to meet Howe Sound's own load. BC thus permitted Howe Sound to buy from BC Hydro and arbitrage some [REDACTED] MW of electricity, out of a total generation capacity of [REDACTED] MW, indicating that its Below-Load Access Percentage was [REDACTED] percent [REDACTED] as Mr. Switlishoff explains.<sup>663</sup>

550. But it appears that even this generous GBL was not sufficient to return Howe Sound to profitability. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] <sup>665</sup>

<sup>663</sup> Switlishoff Expert Statement, ¶ 118.

<sup>664</sup> C-97, BC Hydro, Briefing Note, HSPP Generation Agreement (Draft, 3 January 2003).

<sup>665</sup> C-97, BC Hydro, Briefing Note, HSPP Generation Agreement (Draft, 3 January 2003).

551. [REDACTED]

[REDACTED]<sup>666</sup> There is no indication in the documents produced by Canada that BC Hydro revisited its GBL determination during this period. BC Hydro thus never re-examined whether generation that was economically idle in 2001 (assuming that was the basis for the original GBL determination) would have remained economically idle in later years in light of changes in natural gas prices or hog fuel prices. Instead, because Howe Sound had idle generation capacity at some point in 2001, BC Hydro permitted Howe Sound to arbitrage that capacity indefinitely, obtaining electricity at embedded cost rates from BC Hydro to meet Howe Sound's own internal needs and thus enable such arbitrage.

b. Re-Pricing and Arbitrage  
Under Stepped Rates

552. With the introduction of stepped rates under RS 1823 in April 2006, Howe Sound's purchases of firm energy from BC Hydro were segregated into the two pricing tiers of C\$ 24.77/MW/hr. for Tier 1 power and C\$ 54.00/MW/hr for Tier 2 power. As intended, the new pricing system had the effect of altering the pricing signals faced by self-generators, including Howe Sound. [REDACTED]

<sup>666</sup> [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] <sup>667</sup>

553. BC Hydro appears to have agreed to this arrangement. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] <sup>669</sup>

554. This arrangement is significant because, as Mr. Switlshoff explains, [REDACTED]

[REDACTED]

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<sup>667</sup> C-257, Letter from Pierre Lamarche to Lester Dyck re: Surplus Electricity Volume - Impact on Future CBL (21 June 2006). Under the normal stepped rate mechanisms, if Howe Sound had reduced its consumption of BC Hydro electricity by more than 10 percent, the result would have been a resetting of its CBL such that the quantum of energy it would be permitted to purchase at the lower Tier 1 rates would be reduced.

<sup>668</sup> C-127, Letter from Pierre Lamarche, Manager, Energy, HSPP, to Lester Dyck, BC Hydro (28 August 2006) and Letter Agreement between BC Hydro, HSPP, and Powerex (26 April 2006).

<sup>669</sup> C-150, Letter from Lester Dyck, Senior Key Account Manager, BC Hydro, to Pierre Lamarche, Energy Manager, Howe Sound Pulp and Paper (31 October 2006). *See also* C-152, Letter from Lester Dyck, Key Account Manager, BC Hydro, to Pierre Lamarche, Energy Manager, Howe Sound Pulp and Paper (14 March 2007).

[REDACTED]

[REDACTED]

[REDACTED] As Mr. Switlishoff also explains, this appears to be precisely the type of conduct Order G-38-01 was intended to prevent,<sup>670</sup> and the type of re-pricing of existing generation BC's MEM stated it would not allow.

c. Re-Pricing and Arbitrage  
under a New 2010 EPA

555. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]<sup>671</sup>

556. The following table, based on a BC Hydro 2008 analysis, shows the annual amounts of electricity Howe Sound both generated and [REDACTED]

[REDACTED]. The volumes sold also represent the amount of energy Howe Sound was able to

<sup>670</sup>Switlishoff Expert Statement, ¶ 124 [REDACTED] This ability appears to be a fundamental contravention of Order G-38-01 which directs that BC Hydro allow 'customers with idle self-generation capability to sell excess self-generated electricity, provided the self-generating customers do not arbitrage between embedded cost utility service and market prices.' [REDACTED] which is exactly the arbitrage between embedded cost utility service and market prices not allowed in Order G-38-01.").

<sup>671</sup> C-25, Letter from HSPP to BC Hydro (16 June 2009).

arbitrage each year. Because Howe Sound did not have sufficient generation capacity to meet its own load, every kWh of electricity it sold [REDACTED] would have required it to purchase a kWh of electricity from BC Hydro to meet its own load.



557. In light of its continuing obligation under the 1989 Generation Agreement to [REDACTED]



673

558. Howe Sound did not participate in BC Hydro's 2007-08 Bioenergy Phase I call for power, presumably because it would not have been eligible to do so. Howe had already

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<sup>672</sup> Data from C-96, Email from Wendy Guilbault to Lester Dyck and Gerard Kho (11 April 2008). Canada also supplied to counsel for Mercer certain Howe Sound generation, load, purchase and sales data in an electronic spreadsheet. See C-236, Howe Sound Generation - External (Restricted Access). [REDACTED]

<sup>673</sup> C-96, Email from Wendy Guilbault to Lester Dyck and Gerard Kho (11 April 2008); C-25, Letter from HSPP to BC Hydro (16 June 2009).



committed its generation output under the 1989 Generation Agreement, and the power call was for new or incremental power only.

559. Following the financial crisis in 2008, recession, and a precipitous drop in pulp prices throughout late 2008 and early 2009 (*see* Figure 6 above), Howe Sound was in dire financial circumstances. [REDACTED]

[REDACTED]

560. In its efforts to restore its mills to profitability, [REDACTED]

[REDACTED]

<sup>674</sup> [REDACTED] C-24, HSPP, Financial Statements (3 January 2009) (Exhibit 10 to Howe Sound Green Energy Project: Project Submission (31 March 2010)) at 5. [REDACTED]

[REDACTED] C-24, HSPP, Financial Statements (3 January 2009) (Exhibit 10 to Howe Sound Green Energy Project: Project Submission (31 March 2010)) at 5.

<sup>675</sup> C-24, HSPP, Financial Statements (3 January 2009) (Exhibit 10 to Howe Sound Green Energy Project: Project Submission (31 March 2010)).

[REDACTED]

[REDACTED] <sup>676</sup>

561. Negotiations for a new arrangement proceeded, resulting in two agreements dated 7 September 2010. First, the parties executed a Termination Agreement that terminated the 1989 Generation Agreement [REDACTED]

[REDACTED]

[REDACTED] <sup>677</sup>

562. Second, the parties executed an Electricity Purchase Agreement (the “2010 EPA”), [REDACTED]. BC Hydro entered into the 2010 EPA pursuant to its 2009 Integrated Power Offer, which meant the agreement was exempted from BCUC review and approval.

563. Under the terms of the 2010 EPA, Howe Sound [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] <sup>681</sup> The EPA also provides for a GBL of [REDACTED] GWh/year,<sup>682</sup> but other documents, including a BC Hydro GBL calculation worksheet

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<sup>676</sup> C-25, Letter from HSPP to BC Hydro (16 June 2009).

<sup>677</sup> C-171, Termination Agreement between HSPP and BC Hydro (7 September 2010).

<sup>678</sup> See C-23, 2010 HSPP EPA, at app. 4 [REDACTED].

<sup>679</sup> See C-23, 2010 HSPP EPA, at app. 3, § 3.1.

<sup>680</sup> See C-23, 2010 HSPP EPA, at app. 3, Schedule A.

<sup>681</sup> See C-23, 2010 HSPP EPA, at app. 3, § 3.2.

<sup>682</sup> See C-23, 2010 HSPP EPA, at app. 2, Part II.

and descriptions of the agreement, appear to indicate that the GBL is [REDACTED] GWh/year.<sup>683</sup>

[REDACTED]

[REDACTED]<sup>684</sup>

564. As Mr. Switlishoff explains, the seemingly different GBL figures likely were computed on different bases but are equivalent in light of a special provision in the Howe Sound 2010 EPA. Specifically, unlike the Celgar EPA, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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<sup>683</sup> See, e.g., C-133, Letter from David Cunningham, Industrial Rates Manager, BC Hydro, to Fred Fominoff, General Manager, Fibre and Energy, HSPP (5 March 2012) at 5 (BC Hydro letter to Howe Sound dated March 5, 2012, regarding FY2011 CBL adjustment, states that [REDACTED]

[REDACTED] (emphasis in original); C-117, Presentation titled “Howe Sound Pulp and Paper GBL Overview” (3 August 2011) [REDACTED]

<sup>684</sup> [REDACTED]

<sup>685</sup> C-23, 2010 HSPP EPA, app. 2, Part III.

[REDACTED]

[REDACTED] <sup>686</sup>

565. The EPA thus contemplates that Howe Sound would typically generate at least [REDACTED]  
[REDACTED]  
[REDACTED]. As the facility's combined load [REDACTED]  
[REDACTED], <sup>687</sup> is much higher than its generation capacity, the GBL  
enables Howe Sound to arbitrage [REDACTED] of electricity it sells to BC Hydro. It  
is permitted to purchase firm energy from BC Hydro at embedded cost rates to meet all its load  
requirements in excess of its GBL of [REDACTED]  
[REDACTED], while selling [REDACTED]  
[REDACTED].

566. Howe Sound's Below-Load Access Percentage must be calculated relative to its  
generation and not its load, as its generation level is lower than its load. As Mr. Switlishoff  
explains, Howe Sound's Below-Load Access Percentage under the 2010 EPA is [REDACTED]  
percent, reflecting the [REDACTED] GWh/year of electricity it is permitted to arbitrage out of total  
generation of [REDACTED] GWh/year.<sup>688</sup> (If Celgar had been afforded the same proportionate  
access to embedded cost utility power as Howe Sound, Celgar's GBL would be [REDACTED]  
GWh/year.)<sup>689</sup>

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<sup>686</sup> See Switlishoff Expert Statement, ¶ 127.

<sup>687</sup> [REDACTED]  
[REDACTED] C-236, Howe Sound Generation - External (Restricted Access).

<sup>688</sup> Switlishoff Expert Statement, ¶ 130.

<sup>689</sup> Switlishoff Expert Statement, ¶ 215. [REDACTED]  
[REDACTED]

567. Prior to the new EPA, Howe Sound's GBL had been [REDACTED]

[REDACTED]  
[REDACTED] This enabled Howe Sound to increase the volume of electricity it could arbitrage, and sell to BC Hydro.

568. With respect to generation that Howe Sound had been obligated to use to meet load under its earlier arrangement [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] 690

d. BC Hydro's GBL Calculation for Howe Sound

569. As noted, Canada produced to Claimant a worksheet dated 28 October 2009 that appears to show how the GBL under normal outage conditions of [REDACTED] was calculated.<sup>691</sup> Counsel for Claimant could locate no documents substantiating the actual contractual GBL of [REDACTED] in the documents produced by Canada.

570. In computing the GBL of [REDACTED], BC Hydro used [REDACTED]

[REDACTED]  
[REDACTED] Claimant could locate no document

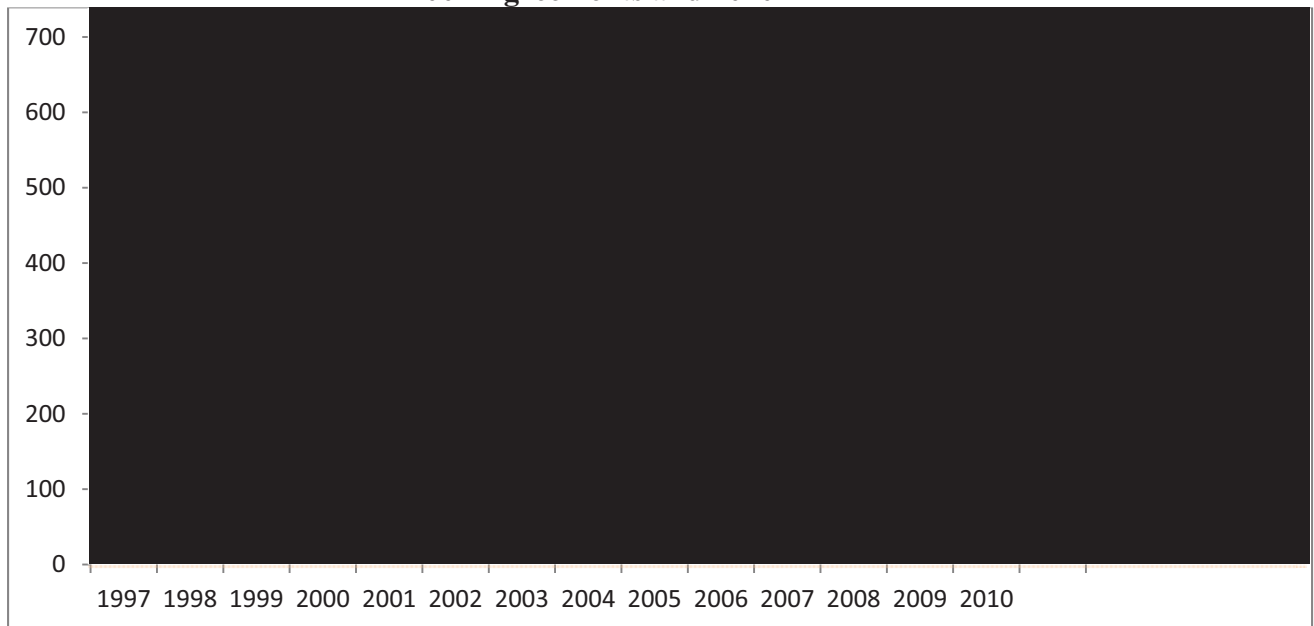
<sup>690</sup> This electricity value was computed by BC Hydro, [REDACTED].  
[REDACTED]. See C-105, BC Hydro, Briefing Note, HSPP Generation Agreement Termination (Draft, 16 February 2010).

<sup>691</sup> C-117, Presentation titled "Howe Sound Pulp and Paper GBL Overview" (3 August 2011).

produced by Canada explaining the basis for the selection of this period, or why BC Hydro used [REDACTED] and a one-year baseline period for Celgar.

571. The use of a [REDACTED] meant that BC Hydro would not capture only Howe-Sound's highest generation year (as it had for Celgar), or only its lowest, but instead capture a range in performance. The following chart illustrates this range, in the context both of the 2010 EPA and the GBL BC Hydro originally set for Howe Sound in 2001:

**Figure 17**  
**HSPP GBL Calculation<sup>692</sup>**  
**2001 Agreements and 2010 EPA**



572. BC Hydro computed a GBL for [REDACTED]

<sup>692</sup> Source: 1997-99 data from Figure 15 above. 2000 data from C-104, B BC Hydro Generation Shortfall Briefing, Discussion with Larry Bell, at 1. 2003-05 data from Figure 16 above. 2007 and 2008 data taken from C-117, Presentation titled "Howe Sound Pulp and Paper GBL Overview" (3 August 2011) at 6-7 (reprinted below). 2006, 2009, and 2010 data taken from C-236, Howe Sound Generation - External (Restricted Access), of generation, purchase, sale, and load data provided by Canada.

[REDACTED]

[REDACTED]

[REDACTED]. The actual calculations, as indicated on this BC Hydro worksheet, were as follows:

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<sup>693</sup> The level of self-generation used to meet load can be computed in two equivalent ways: (1) Generation - Sales, or (2) Load - Purchases. This is because  $\text{Load} = \text{Generation} + \text{Purchases} - \text{Sales}$ . Switlishoff Expert Statement, ¶ 190, n. 48. [REDACTED]

**Figure 18**  
**BC Hydro GBL Worksheet for HSPP 2010 GBL<sup>694</sup>**



573. This BC Hydro calculation worksheet documents BC Hydro's use of [REDACTED], its use of a historical usage standard, its use of an actual [REDACTED]. These approaches all differed from those BC Hydro took for Celgar as well as for Tembec.

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<sup>694</sup> See C-117, Presentation titled "Howe Sound Pulp and Paper GBL Overview" (3 August 2011).



**2. The Treatment BC Hydro Afforded Howe Sound is More Favorable Than the Treatment It Afforded to Celgar**

574. Again, BC Hydro and the BCUC afforded to Howe Sound treatment more favorable than they afforded to Celgar, with respect to access to embedded cost utility power while selling power, both under Howe Sound's 1989 Generation Agreement (which the BCUC may have approved)<sup>695</sup> and under Howe Sound's 2010 EPA (which the Province exempted from BCUC review).

575. As Mr. Switlishoff confirms, with respect to the 1989 Generation Agreement, the following differences in treatment exist:

1. BC Hydro paid Howe Sound to provide load displacement services. BC Hydro provided valuable consideration to Howe Sound in exchange for Howe Sound's commitment to use its self-generation to meet a portion of its own load. BC Hydro and its ratepayers thus contributed substantially to the total cost incurred by Howe Sound in installing its electricity generation capacity. BC Hydro and its ratepayers did not contribute at all to the total cost incurred by Celgar in installing its electricity generation capacity, and BC Hydro did not provide consideration to Celgar in exchange for an agreement to displace load. The Province instead imposed a full load displacement obligation upon Celgar by regulatory action. The Province thus took from Celgar that which it paid Howe Sound to provide.
2. Following Order G-38-01, BC Hydro established a GBL for Howe Sound of [REDACTED] MW, based upon an unknown baseline period but which is unrelated to its actual generation used to meet load in any annual or multi-year period. It appears instead that BC Hydro based the GBL on Howe Sound's generation at some undisclosed point in time, but it is unclear whether or how the historical usage standard was applied. For Celgar, BC Hydro used a one-year, calendar year 2007 baseline, and thus captured only Celgar's highest ever generation year to date.
3. After stepped rates were introduced, [REDACTED]

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<sup>695</sup> See Switlishoff Expert Report, ¶ 109 (noting that BC Hydro should have filed the 1989 Generation Agreement with the Commission for approval, but that Mr. Switlishoff could find no publicly available record of such approval).

[REDACTED] BC Hydro and the Province have not afforded Celgar the same flexibility. Instead, Celgar has been required under Order G-48-09 and its 2009 EPA always to meet its own load before it can sell any self-generated electricity.

4. BC Hydro and the BCUC in Order G-38-01 afforded Howe Sound access to embedded cost utility electricity to facilitate new arbitrage, as Howe Sound had not previously sold any self-generated electricity. Howe Sound was afforded such access, [REDACTED].  
[REDACTED]. Celgar never committed to use its self-generated electricity to meet its own load; nevertheless, BC Hydro and the BCUC did not permit Celgar to access embedded cost utility power at all while selling power.<sup>696</sup>

576. With respect to the 2010 EPA, the following differences in treatment exist:

1. The Province and BC Hydro subjected Celgar to a net-of- load standard, under which no below-load access could be afforded. BC Hydro subjected Howe Sound to a historical usage standard in the 2010 EPA, under which substantial below-load access was afforded.
2. The degree of below-load access the Province and BC Hydro afforded to Celgar was 0.0 percent. The degree of below-load access BC Hydro afforded to Howe Sound under the 2010 EPA was [REDACTED] percent.
3. In terms of methodology and calculations, although Celgar's EPA was negotiated in 2008, and Howe Sound's later, in 2009, BC Hydro utilized a one-year, calendar year 2007 baseline period for Celgar, whereas it used [REDACTED], baseline period for Howe Sound. For Celgar, BC Hydro captured only its highest ever generation year to date. For Howe Sound, BC Hydro ignored Howe Sound's [REDACTED].  
[REDACTED].
4. In those baseline periods, BC Hydro measured Celgar's [REDACTED].  
[REDACTED].

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<sup>696</sup> Switlshoff Expert Statement, ¶¶ 187-188, 210.

5. BC Hydro permitted Howe Sound to capture the full benefit of its investments in self-generation made following Order G-38-01. It did so by affording Howe Sound access to embedded cost utility power to arbitrage the new or incremental generation capacity it added in 2010. BC Hydro and the BCUC refused to allow Celgar to capture the full benefit of all its post-Order G-38-01 investments in increasing generation output, treating in particular the benefits of its 2005-07 Project Blue Goose investments as belonging in part to BC Hydro and FortisBC ratepayers.<sup>697</sup>

**E. Celgar's Less Favorable Treatment Cannot Be Justified By Legitimate Government Policies Consistently Applied**

577. The more favorable treatment afforded by BC Hydro or the BCUC to both Tembec and Howe Sound cannot be justified as emanating from the reasonable application of any rational and legitimate government policy. Necessarily, Mercer must await Canada's filing on justification in order to address this issue comprehensively. Nonetheless, Mercer provides several preliminary observations based on the policy contained in the BCUC's 2001 Order G-38-01, which BC Hydro and the BCUC were purporting to apply, organized by each different substantive area of discrimination identified above. Each numerical heading below identifies an independent basis for concluding that Canada has afforded less favorable treatment to Mercer.

**1. Canada Cannot Justify Taking from Celgar Load Displacement Services it Paid Other NBSK Pulp Mills to Provide**

578. As set forth above, BC Hydro paid Howe Sound to install two new turbine generators, and to improve its steam production, in its kraft pulp mill, by providing an interest free loan of [REDACTED]. In exchange for this valuable consideration, Howe Sound agreed to use its generation to meet its own electrical load, [REDACTED].

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<sup>697</sup> Switlshoff Expert Statement, ¶¶ 191, 210.

579. This LDA was neither unique nor unusual. As but one additional example, and using a third appropriate comparator, BC Hydro, on 15 March 2004 entered into a LDA with Canfor, covering its Prince George and Intercontinental NBSK pulp mills.<sup>698</sup> BC Hydro executed this LDA some three years after Order G-38-01. The Agreement provided that BC Hydro would pay Canfor C\$ 49 million toward a new generation project's estimated total cost of C\$ 81.4 million, [REDACTED]<sup>699</sup> In exchange, Canfor agreed that it would install a 60 MW double extraction condensing turbine generator, and, for the 15-year term of the Agreement, it would use reasonable efforts to operate the project so as to generate an average of at least 390 GWh annually (45 MW), and to use 390 GWh/year to meet the plant's own load.<sup>700</sup>

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<sup>698</sup> The LDA originally was entered into by Canfor Forest Products Ltd. ("Canfor"). Subsequently, Canfor Pulp Limited Partnership ("Canfor LP"), with Canfor Pulp Holding Inc. as its general partner ("Canfor Holding") acquired the Prince George pulp mill operations, and succeeded to the LDA. Upon information and belief, at all relevant times, Canfor, Canfor LP, and Canfor Holding have been Canadian entities, with substantial Canadian ownership. *See* C-194, Canfor Pulp Products Inc. Annual Information Form (13 February 2013) at 1-2, *available at* [http://www.canforpulp.com/\\_resources/investors/annuals/A130215\\_CPPI\\_2012\\_AIF.pdf](http://www.canforpulp.com/_resources/investors/annuals/A130215_CPPI_2012_AIF.pdf); C-195, Canfor, The Leader in Dimension Lumber, *available at* <http://www.canfor.com/documents/CanforCorpoarteBrochure.pdf>, [REDACTED]

*See e.g.*, C-190, Excel titled "BC Hydro Transmission Customers with Self Generation"; C-191, Excel titled "Attachment A - Update (Aug. 1, 2007)."

<sup>699</sup> C-160, Power Smart Incentive Program Agreement, Industrial Load Displacement Projects, between BC Hydro and Canadian Forest Products Ltd. (15 March 2004), ¶¶ 3.1, 4.5.

<sup>700</sup> C-160, Power Smart Incentive Program Agreement, Industrial Load Displacement Projects, between BC Hydro and Canadian Forest Products Ltd. (15 March 2004), ¶ 6. [REDACTED]

[REDACTED] C-160, Power Smart Incentive Program Agreement, Industrial Load Displacement Projects, between BC Hydro and Canadian Forest Products Ltd. (15 March 2004), ¶ 6.4.

580. Prior to the LDA, the mill had no generation capacity. Like Howe Sound, BC Hydro paid Canfor to install generation equipment and to provide load displacement services.

581. [REDACTED]

582. On the same date, BC Hydro and Canfor entered into a 10-year EPA (entered into after Canfor was one of the four successful bidders in Bioenergy Phase I, along with Celgar). The EPA provides for an hourly GBL of [REDACTED] MWh, which, at 8760 hours/year, is equivalent to an annual GBL of [REDACTED].

583. In sum, when BC Hydro set GBLs for Canfor in its 2009 EPA, and for Howe Sound in its 2010 EPA, it was requiring those mills to meet load with generation equipment BC Hydro and its ratepayers had helped to pay for, and which both mills already had committed contractually to use to meet load.

584. Celgar did not enter into any similar LDA, and was not paid by BC Hydro or the Province to purchase or install any generation capacity. In imposing a GBL and a net-of-load

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<sup>701</sup> C-238, Power Smart Incentive Program Amending Agreement No. 2 between BC Hydro and Canfor Pulp Limited Partnership (4 February 2009).

<sup>702</sup> C-239, Electricity Purchase Agreement between BC Hydro and Canfor Pulp Limited Partnership, at app. 2, Part II.

obligation upon Celgar, the BCUC and BC Hydro took from Celgar through regulatory action that which BC Hydro had paid Howe Sound, Canfor, and others, to provide — valuable load displacement services.<sup>703</sup> Correspondingly, Canada denied Celgar access to embedded cost utility power that it could otherwise have used to meet its load, without a LDA or compensation, whereas it compensated Howe Sound and Canfor, and obtained their agreement, for waiving their access to utility embedded cost power up to the amount of their load displacement commitments. Canada thereby afforded Mercer less favorable treatment than it afforded Howe Sound, Canfor, and other pulp mills paid to displace load.

585. As Mr. Switlishoff explains, “The Province recognizes that load displacement is a valuable service. It enters into binding contractual arrangements with some pulp mills to provide that service, paying at least two mills [REDACTED] each. And then by regulatory action it orders Celgar to provide the same service without any compensation. In my view, this taking from Celgar that which BC Hydro paid others to provide constitutes less favourable treatment.”<sup>704</sup>

586. To be clear, Mercer does not contend that BC Hydro or the Province should have paid Celgar for the load displacement obligations imposed by Order G-48-09 and its GBL, and it is not seeking damages based on payments made to others. Mercer likewise is not challenging BC Hydro’s load displacement procurement practices. Rather, Mercer contends that it is “less favorable” treatment for the Province and BC Hydro to compel Mercer to provide load

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<sup>703</sup> As Mr. Switlishoff explains, “Load displacement agreements are relatively common in the electric utility industry, and authorized by public utility regulators, as they provide utilities with a cost-effective means to solve certain supply shortfalls. . . . As long as the price paid by the utility for load displacement services is less than the cost of building new generation or purchasing incremental energy from alternative sources, such arrangements make economic sense both for the utility and the customer.” Switlishoff Expert Statement, ¶ 21.

<sup>704</sup> Switlishoff Expert Statement, ¶ 141.

displacement services at all. Because the Province or BC Hydro did not obtain a LDA with Celgar, it cannot require Celgar to provide any load displacement services without treating Celgar less favorably than those whom it paid.

587. Canada cannot justify this discriminatory treatment with reference to any legitimate government policy, and, to date, neither the BCUC, BC Hydro, nor the Province, ever has attempted to do so.

**2. Canada Cannot Justify its Application of Different Regulatory Standards, Applying A Net-of-Load Standard to Celgar While Using a historical Usage Standard for All Other Pulp Mills**

588. Even if the Tribunal were to conclude that the Province has not treated Mercer less favorably by imposing upon Celgar load displacement obligations that the Province paid others to provide, the Tribunal should nonetheless conclude that the Province treated Mercer less favorably, by imposing a net-of-load standard on Celgar and no other pulp mill. The net-of-load standard, as implemented by the Province, means that Celgar is afforded no access to utility-supplied embedded cost power while selling electricity below its load. It is “less favorable” treatment to impose upon Celgar a different, more restrictive, regulatory standard than the Province imposes on all other pulp mills.

589. BCUC Order G-38-01 directed BC Hydro to negotiate GBLs with its self-generating customers applying a historical usage standard. This standard allowed mills to access embedded cost utility electricity while selling electricity based on their historical usage. BCUC Order G-48-09, effectively required self-generators in the FortisBC service territory to abide by a net-of-load standard, such that they could be afforded no access to embedded cost utility

electricity while selling electricity. The historical usage standard thus is less restrictive than the net-of-load standard.

590. BC Hydro computed Celgar's GBL consistently with the net-of-load standard it had requested the BCUC to apply to self-generating customers of FortisBC, including Celgar, and which the Commission adopted and required BC Hydro to use. The result was that the province afforded Celgar no access to embedded cost power while selling electricity (its Below-Load Access Percentage is zero percent). BC Hydro, on the other hand, computed GBLs for its customers by applying a historical usage standard, which the BCUC required BC Hydro to use with its self-generating customers. All other BC NBSK pulp mills selling electricity, therefore were afforded some access to embedded cost power while selling electricity. The degree of below-load access the Province and BC Hydro afforded to Tembec was [REDACTED] percent, considering the special seasonal shaping afforded to Tembec, and [REDACTED] percent absent such impact. For Howe Sound, the Below-Load Access Percentage was [REDACTED] percent.

591. Application of the differing standards thus had a significant discriminatory impact. Indeed, although not a necessary independent element of Mercer's proof as discussed above, in the context of BC NBSK pulp mills selling self-generated electricity — the only comparators in like circumstances with Celgar — the impact fell disproportionately and exclusively on a U.S.-owned company. Celgar is the only pulp mill located in FortisBC's service territory, and the only pulp mill in British Columbia to which the Province has applied a net-of-load standard.

592. The BCUC has held that the net-of-load and historical usage standards are not identical or similar, and that the application by a utility of one standard to one customer and the other standard to another customer is "unduly discriminatory." As noted above, in its November



2013 Order G-191-13 concerning Tolko and FortisBC's acquisition of the City of Kelowna's utility assets, the Commission expressly concluded that "a GBL which is less than a customer's load, other things equal, is not equivalent to the concept of net-of-load on a dynamic basis. The concept of net-of-load on a dynamic basis does not envision sales of energy which could be used to serve load at any time."<sup>705</sup> In light of these differences, the Commission held that "FortisBC offering service on different bases to these two customers will constitute a situation of 'undue discrimination, preference, prejudice or disadvantage' in respect of this service, within the meaning of section 59(4)(b) of the Act."<sup>706</sup>

593. If application of the different standards is discriminatory within the context of the UCA when a single utility applies each to different customers in its territory, then it also is discriminatory under NAFTA for BC Hydro to request, and the BCUC to approve, the application of one standard to Celgar and the other to all other pulp mills, when all such mills are within the same political jurisdiction and under the BCUC's jurisdiction.

594. The BCUC rejected Tolko's arguments attempting to justify application of the different standards, and neither the BCUC nor BC Hydro ever has offered any legitimate justification for applying a different standard to FortisBC's self-generation customers than to BC Hydro's self-generation customers.<sup>707</sup> To the contrary, since advocating its adoption in the G-

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<sup>705</sup> C-21, *Kelowna Decision*, at 18.

<sup>706</sup> C-21, *Kelowna Decision*, at 21.

<sup>707</sup> BC Hydro, when asked in litigation before the BCUC why it requested a different standard for FortisBC self-generators, has attempted to blame FortisBC, contending that "FortisBC would not agree to any approach to limit arbitrage in relation to PPA supply." C-115, BC Hydro response to Celgar Information Request No. 1.1.15.3 in BCUC New PPA Proceeding (22 July 2013). But this is beside the point. BC Hydro did not get FortisBC's agreement to the net-of-load approach either. That is why BC Hydro went to the BCUC seeking a BCUC order, and it could have requested that the Commission order FortisBC to negotiate historical usage baselines with its self-generating customers, just as the Commission had ordered BC Hydro to do in Order

[FOOTNOTE CONTINUED ON NEXT PAGE]

48-09 proceeding, BC Hydro has backed away entirely from the net-of-load standard for industrial self-generators.<sup>708</sup>

595. On 24 May 24, BC Hydro submitted for BCUC review a proposed new 20-year Power Purchase Agreement (“2013 PPA”) to replace its 1993 PPA with FortisBC. In place of the net-of-load standard for FortisBC self-generators added to the 1993 PPA by the BCUC in Order G-48-09, the New PPA proposes that the historical usage standard be applied.<sup>709</sup> In justifying the change, BC Hydro has argued to the Commission that:

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

G-38-01. Canada cannot demonstrate that its concerns regarding arbitrage required the application of different standards.

<sup>708</sup> While BC Hydro did not use the specific term “net-of-load” in its application to amend the 1993 PPA, the terminology it did use, “not in excess of load”, carries the same meaning. See C-147, BC Hydro Final Argument, *Application to Amend Section 2.1 of the Rate Schedule 3808 Power Purchase Agreement* (16 January 2009), ¶18 (BC Hydro’s requested amendment of the 1993 PPA stated, “The Electricity purchased under this Agreement . . . shall not be sold to any FortisBC customer that is selling self-generated electricity which is not in excess of its load.”).

<sup>709</sup> C-162, BC Hydro Application for Approval of New PPA with FortisBC (24 May 2013), ¶ 2.5. Section 2.5 of the 2013 PPA reads, in relevant part:

(a) Electricity taken under this Agreement:

...

(ii) shall not be sold to any FortisBC customer with self-generation facilities, or used by FortisBC to serve any such customer’s load, when such customer is selling self-generated Electricity unless a portion of the customer’s load equal to or greater than the customer-specific baseline is being served by Electricity that is not Electricity taken under this Agreement, where such customer-specific baseline is as agreed between the Parties (acknowledging that such baseline shall be determined in a manner consistent with how BC Hydro establishes a generator baseline for its own customers), failing which agreement either Party may submit the matter for dispute resolution in accordance with Section 13;

...

(b) For greater certainty, Section 2.5(a)(ii) is intended to prevent FortisBC from increasing its purchases of Electricity under this Agreement if such increased purchases would be a result of FortisBC’s customers with self-generation facilities purchasing Electricity from FortisBC at regulated rates and

[FOOTNOTE CONTINUED ON NEXT PAGE]

BC Hydro believes the Net-of-load Approach does not strike the right balance because it is inflexible and can have unintended consequences . . . . The Net-of-load Approach is problematic when a FortisBC self-generating customer exports electricity from the service area (such as pursuant to an EPA with BC Hydro). The problem is that under this approach FortisBC cannot use any PPA electricity to serve the customer load while the customer is exporting, including if the export is in accordance with an EPA with BC Hydro. The Net-of-load Approach may also be an impediment to the development of cost effective incremental generation in the FortisBC service area because FortisBC is not permitted to access PPA power for the purpose of serving a customer that wishes to sell any electricity not in excess of load including new incremental electricity.<sup>710</sup>

596. In other words, BC Hydro concedes that the net-of-load standard functions as a disincentive to investment in self-generation, contravenes one of the policy objectives of Order G-38-01, and therefore is not an appropriate regulatory standard.

597. BC Hydro in fact appears to have advised the Commission about its reservations concerning the net-of-load standard in June 2012. On June 20, 2012, BC Hydro finally responded to a request from the BCUC dated 27 November 2009 to explain its GBL policies, and to answer 20 questions concerning its GBLs, including whether it planned to transition its own customers to the net-of-load standard. In that filing, BC Hydro explained why it disfavored the net-of-load approach:

The main disadvantage of the net-of-load approach is that it does nothing to remove the economic barriers to customers' usage of idle self-generation or investment in upgrades to existing generation or new generation.

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[FOOTNOTE CONTINUED FROM PREVIOUS PAGE]

simultaneously selling Electricity at higher rates, except as otherwise approved by the Commission.

C-162, C Hydro Application for Approval of New PPA with FortisBC, app. A (24 May 2013), att. 1, ¶ 2.5 (2013 PPA).

<sup>710</sup> C-140, BC Hydro, Supplemental Submissions of BC Hydro, *In re BC Hydro Application for Approval of Rates for Services to FortisBC, Rate Schedule 3808, Tariff Supplement No. 3 - Power Purchase and Associated Agreements, Rate Schedule 3817, Tariff Supplement No. 2 - Amended and Restated Wheeling Agreement* (13 January 2014), ¶¶ 42–44.

\* \* \*

In BC Hydro's view, application of a net-of-load approach to BC Hydro's transmission service customers would result in the continued under-utilization of existing generation assets and the avoidance of investment in upgrades or new generation assets. Consequently, under a net-of-load approach BC Hydro and its customers would have reduced access to the benefits of cost-effective electricity from customers with self-generation.<sup>711</sup>

598. BC Hydro's express stated "preference"<sup>712</sup> for the historical usage standard over the net-of-load standard, and its abandonment of the net-of-load standard in the new PPA as proposed, hardly justify the application of the net-of-load standard to Celgar alone among pulp mills. And the Tribunal should not lose sight of the fact that BC Hydro's "conversion" came about only after Celgar filed this NAFTA claim.

**3. Canada Cannot Justify BC Hydro's Inconsistent Methodologies and Calculations in Determining GBLs for Celgar, Tembec, and Howe Sound as Consistent with BCUC Order G-38-01 Policies**

599. As Mercer has noted above, BC Hydro also applied inconsistent calculation methodologies, baseline periods, and baseline durations in determining the GBLs for Celgar, Tembec, and Howe Sound. [REDACTED]

[REDACTED] It variously used load or generation-to-load as the basis for computing the GBL

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<sup>711</sup> C-26, BC Hydro, Information Report, app. E (June 2012) at 4.

<sup>712</sup> In the New PPA proceedings, BC Hydro has characterized in June 2012 Information Report as providing "reasons why BC Hydro prefers the GBL {historical usage} approach to the 'net-of-load' approach." C-141, BC Hydro, Supplemental Submissions of BC Hydro, *In re BC Hydro Application for Approval of Rates for Services to FortisBC, Rate Schedule 3808, Tariff Supplement No. 3 - Power Purchase and Associated Agreements, Rate Schedule 3817, Tariff Supplement No. 2 - Amended and Restated Wheeling Agreement* (3 February 2014), ¶ 34.

600. In evaluating any justifications Canada may proffer for these inconsistencies, the Tribunal's task, as in *AES v. Hungary*, is to determine whether BC Hydro was acting consistently in applying a uniform methodology, or whether it instead was exercising discretion in a manner that was less favorable to Celgar than to others.

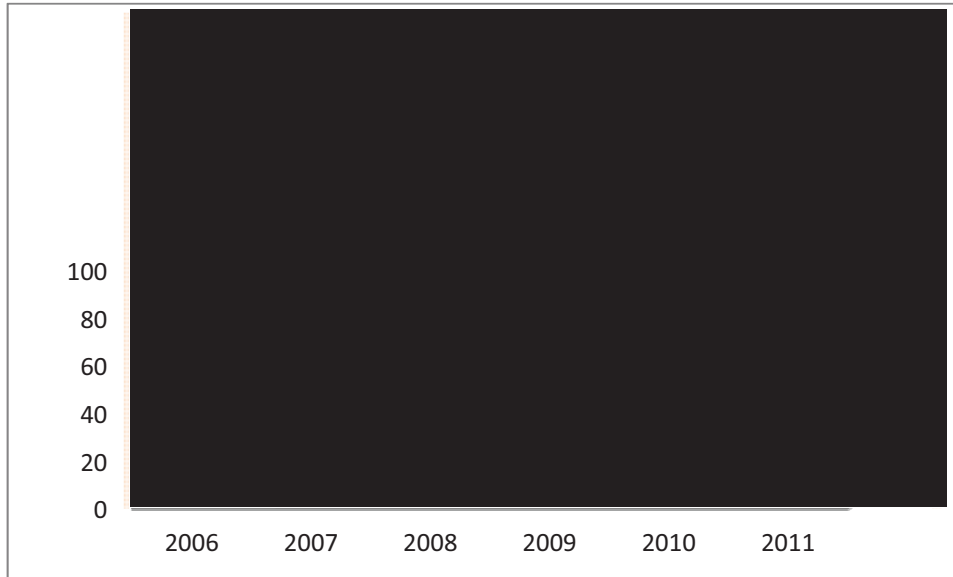
601. Even if the Tribunal were to ignore Order G-48-09, and its imposition of a net-of-load standard for Celgar and other FortisBC self-generators, which differed from the historical usage standard it had imposed in Order G-38-01 on BC Hydro self-generating customers, Canada's treatment of Celgar still remains less favorable than that afforded to Tembec and Howe Sound (Celgar's Below-Load Access Percentage at zero, is the lowest by far). Moreover, the differences in treatment cannot be justified as resulting from the uniform application of Order G-38-01's policies and directives.

a. *The No Increased Access Mandate*

602. The central tenet of Order G-38-01 is that a self-generator should not be afforded increased access to embedded cost power while selling electricity. Nevertheless, as detailed above, in the Tembec 2009 EPA, BC Hydro actually provided Tembec with significantly increased access, while disguising this fact from the BCUC in its Justification Report.

603. The large increase in Tembec's access to embedded cost power under the 13 August 2009 EPA, as afforded by BC Hydro and the Province, can be illustrated graphically:

**Figure 19**  
**Tembec Firm Energy Purchases (RS1821/1823)**  
**From BC Hydro**  
**(GWh/Yr)**



604. Canada cannot justify this increase in access to embedded cost utility power as necessary to “take into consideration” the 1997 EPA or otherwise to preserve for Tembec any benefits under the 1997 EPA. First, that goal could have been accomplished by setting the GBL within the strictures of Order G-38-01, by simply maintaining for Tembec the same level of access it had historically enjoyed under the 1997 EPA. It cannot justify the *increase* in access BC Hydro and the BCUC provided to Tembec.

605. Moreover, Mercer takes issue with the very notion of taking preexisting agreements into consideration in establishing GBLs. Order G-38-01 contains no statement or direction authorizing BC Hydro to do so, and it generally is “less favorable” treatment for BC Hydro to do so. A State cannot justify providing preferential treatment to one entity on the basis that it is necessary to protect earlier preferential treatment it provided to that entity. At both times, the State provides more favorable treatment to some than to others.

606. While BC Hydro acted more permissively with Tembec than Order G-38-01's access mandate allows, it acted more restrictively with Celgar. Whereas Tembec's purchases of embedded cost utility power increased after its 2009 EPA took effect, without Tembec increasing its load, Celgar's declined.<sup>713</sup> Celgar began making sales to BC Hydro under its EPA on its EPA's Commercial Operation Date of 20 September 2010. Celgar's purchases from FortisBC totaled 22.6 GWh in 2007 and 24.6 GWh in 2008, before the EPA was signed. After the EPA took effect, Celgar's purchases from FortisBC dropped to [REDACTED]

607. This decrease is the direct result of the GBL calculation BC Hydro used. As noted, consistent with the net-of-load standard, BC Hydro set Celgar's GBL equal to its 2007 load of 349 GWh/year. Celgar, however, was not using its self-generation to supply all of that load. Rather, in 2007, it had self-supplied 326 GWh and purchased the remaining 23 GWh needed to meet its load from FortisBC.<sup>715</sup> With a GBL set at its load, rather than at the level of the self-generation it had used to meet load, all other things remaining equal, Celgar's GBL forced it to increase the amount of generation it used to meet its load, and reduced its access to embedded cost utility electricity.

608. Celgar's GBL thus is not consistent with the Order G-38-01 historical usage standard. Under that standard, BC Hydro would have had to use in its calculation the level of

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<sup>713</sup>As previously indicated, [REDACTED]

[REDACTED] Thus, the effect of load growth effectively is excluded when examining Celgar's purchases from FortisBC.

<sup>714</sup> See Annex A.

<sup>715</sup> See Annex A. Celgar also had sales of 23.9 GWh.

self-generation used to meet load, just as it did for [REDACTED]. It should not have used total load. This also is confirmed by BC Hydro's post facto June 2012 GBL Guidelines, which purport to reflect the GBL methodology BC Hydro has historically applied. The guidelines state that the 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 in which the EPA is being negotiated."<sup>716</sup>

b. Preservation of the Status Quo

609. BC Hydro also acted inconsistently with Order G-38-01 in utilizing completely different baseline periods for Celgar (2007), Tembec [REDACTED], and Howe Sound [REDACTED]. As the Commission has explained, its intent in Order G-38-01 was "in fact the preservation of the *status quo*, such that BC Hydro's obligation to serve was limited to the load served at a particular time and self-generators were required to continue to serve that portion of their own load which they had served in the past."<sup>717</sup> The Commission also noted that "{t}he concept of preserving the *status quo* for the utility necessarily includes a temporal aspect."<sup>718</sup> By not confining its baseline periods "to a particular time," and using highly variable time periods instead, BC Hydro eliminated that intended "temporal element."

610. One problem (among many) with BC Hydro's approach, which of course fails to preserve any particular *status quo* at all, is that the economic conditions underlying self-generation change over time. The key variables affecting the economics of self-generation —

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<sup>716</sup> C-26, 2012 GBL Guidelines, at 2 (emphasis added).

<sup>717</sup> C-21, *Kelowna Decision*, at 7.

<sup>718</sup> C-21, *Kelowna Decision*, at 18.



investment costs, avoided purchased energy costs, hog fuel costs, natural gas prices, and, for pulp mills, pulp prices (which determine whether the mill even stays open) — all have changed over the wide span of years across which BC Hydro’s various baseline periods fall. BC Hydro thus has determined every mill’s GBL under different conditions, which conditions effectively then get locked in for the term of the EPA. This re-orders the competitive positions of the different self-generating pulp mills, providing significant benefit and advantage to some and not to others,

611. The objective expressed in Order G-38-01 could have been achieved using a uniform baseline period for all, set around the time the Commission issued its order. Such an approach would have protected BC Hydro’s ratepayers from the ostensible “harm” that would result if BC Hydro would have to replace the amount of self-generation currently used to meet the mill’s own load, and also encourage future investment in self-generation by making clear that all new and incremental generation resulting from new investment could be sold at market prices.

612. If BC Hydro had computed Celgar’s GBL using a historical usage standard, and a baseline period of 2001 as Order G-38-01 contemplates, [REDACTED], Celgar’s GBL would be [REDACTED] GWh/year,<sup>719</sup> and its Below-Load Access Percentage (using the 2007 calendar year load data available at the time its GBL was established in 2008) would be [REDACTED] percent<sup>720</sup> [REDACTED]

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<sup>719</sup> This is the total amount of Celgar’s generation in the year, minus some small sales, and thus reflecting the amount of self generation Celgar used to meet its own load. See Annex A.

<sup>720</sup> [REDACTED]

613. Canada cannot justify its actions in utilizing different baseline time periods to compute GBLs for individual pulp mills as a reasonable application of BC self-generator policy, when its actions are flatly inconsistent with that policy, and do not serve its articulated objectives. One express purpose of Order G-38-01 was to encourage new investment in self-generation by allowing self-generators to obtain access to embedded cost utility power to facilitate market sales of new and incremental self-generation. BC Hydro's "moving goalpost" approach hardly serves that purpose.

614. Moreover, BC Hydro adopted and implemented its practice of using historical usage data close in time to when it was negotiating an EPA without public notice. It was not until it released its GBL Guidelines in June 2012 that BC Hydro advised the public that it would use current data at the time it was computing the GBL.<sup>721</sup> Thus, companies like Celgar that were making investment decisions on new or improved generation in, for example, 2005-2006, had no way of knowing that they would have to obtain a GBL from BC Hydro before making the improvements in order to be able to treat such generation as new or incremental under Order G-38-01. Indeed, as Mr. Merwin testifies, Celgar had no reason to believe that it needed to approach BC Hydro at all.<sup>722</sup> Under Order G-38-01, and as the Commission reaffirmed in the Kelowna proceeding, GBLs were to be negotiated between the self-generating customer and its utility. BC Hydro has never been Celgar's utility. BC Hydro cannot thus cannot justify its

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<sup>721</sup> See C-26, BC Hydro Information Report (June 2012) at 15-16 ( "{T}he objective of the contracted GBL determination process is always the same namely, 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. It is important to emphasize that 'normal' in the context of a contracted GBL 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 . . . {d}ata from 2008 to 2012 is much more likely to reflect normal operating conditions in 2012. ")

<sup>722</sup> See Merwin Witness Statement at ¶ 90.

actions in basing Celgar's GBL on a baseline period keyed to when it approached BC Hydro, as there was no requirement that Celgar contact BC Hydro embodied in BC self-generator policy.

c. Treatment of New and Incremental Generation

615. Not only was BC Hydro's approach of using "current" data as of the time it was negotiating the EPA inconsistent with the Commission's intent in Order G-38-01 to preserve the *status quo*, but also it violated the commitment implicit in Order G-38-01, and reiterated by the BC MEM to the Pulp & Paper Working Group, that new or incremental generation would not have to be used by a self-generator to meet its own load, and could be sold at market rates.

616. Indeed, instead of preserving for ratepayers the benefits of self-generation that had historically been used to meet load around 2001, when the BCUC issued its Order G-38-01, BC Hydro took for itself and its ratepayers additional benefits resulting from self-generation investments made *after* Order G-38-01. Order G-38-01 expressly contemplated that BC Hydro ratepayers would have no entitlement to any rate-reducing benefit from a self-generator's future investment in self-generation, and that the self-generator could capture the full returns of all its future investments to increase self-generation.

617. In Celgar's case, in utilizing a 2007 baseline, BC Hydro denied to Celgar the full benefits of its Project Blue Goose. As noted above, over the period 2005-2007, Celgar invested approximately C\$ 25 in process improvements and de-bottlenecking in order to increase the mill's production of both pulp and electricity. These investments helped the plant to increase its total generation level from 300 GWh/year in 2005 and 290 GWh/year in 2006, to 351 GWh/year in 2007 and 374 GWh/year in 2008.<sup>723</sup> By using a 2007 baseline, BC Hydro captured for its

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<sup>723</sup> See Annex A.

ratepayers the benefits from Mercer's post-Order G-38-01 investments and improvements in self-generation. Even granting to Mercer just the benefit of its own incremental investments in self-generation, after acquiring the plant in 2005, would result in a GBL of 271 GWh/year (based on Celgar's average generation used to meet load in 2005 and 2006),<sup>724</sup> and a Below-Load Access Percentage of 22.4 percent.<sup>725</sup>

618. We know the BCUC, under Order G-38-01, did not intend for generation-related investments made in the few years preceding the computation of a GBL to count as generation historically used to meet load due to the BCUC's review and acceptance of Tolko's proposed 2 MW/hr GBL in 2001. As noted above, the annual level of generation that Tolko was using to meet its load at the time it approached the Commission was 4.7 MW/hr, reflecting recent investments Tolko had made. The Commission instead accepted Tolko's historical usage data based alternatively on 1997 data or 1996-99 four year average data, both of which yielded a GBL of approximately 2 MW/hr.

619. In light of the BCUC's treatment of Tolko, there is no reasonable basis for BC Hydro's differential treatment of Celgar. BC Hydro's rigid use of 2007 data was neither required nor appropriate to implement any Order G-38-01 policy objective.

*d. Canada Failed To Apply Consistently  
Any Uniform Methodology*

*(i) A Proposed Framework for Analysis*

620. In analyzing the existence of discretion, and whether it was exercised less favorably for Celgar than for others, the Tribunal may find it useful in developing its analytical framework to be guided by jurisprudence developed elsewhere but for the same purpose of

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<sup>724</sup> Calculated by subtracting electricity sales from total generation.

<sup>725</sup> The formula is (load-GBL) / load, or (349 GWh - 271 GWh) / 349 GWh = 22.4 Percent.

identifying targeting and discrimination. Mercer makes no contention that NAFTA requires the application of any particular framework, but simply suggests the Tribunal may find what follows to be useful in determining how to evaluate Canada's proffered explanations.

621. Specifically, under the WTO SCM Agreement discussed above, subsidies targeted to particular industries or companies are actionable, but subsidies that are widely available and not "specific" to particular industries or companies are not actionable. The underlying concept is that targeted subsidies create trade distortions, but broadly available and widely used subsidies do not.<sup>726</sup> Both in the subsidy specificity context, and in the NAFTA national treatment/MFN context, the objective of the analysis is to differentiate between preferential/less favorable treatment and equivalent treatment.

622. As is the case in investor-state discrimination jurisprudence, the SCM Agreement contemplates the possibility both of *de jure* targeting and discrimination (referred to as "specificity") and *de facto* specificity. With respect to *de jure* specificity, the SCM Agreement provides that

{w}here the granting authority, or the legislation pursuant to which the granting authority operates, explicitly limits access to a subsidy to certain enterprises, such subsidy shall be specific.<sup>727</sup>

This approach parallels the NAFTA/investment treaty approach to *de jure* discrimination.

623. With respect to *de facto* specificity, the SCM Agreement provides that specificity (*i.e.*, preferential targeting) will not be presumed if the relevant governing regulation is clearly

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<sup>726</sup> See, e.g., C-87, *United States-Final Countervailing Duty Determination with Respect to Certain Softwood Lumber from Canada*, WTO No. WT/DS257/R (Panel Report, 29 August 2003), ¶ 7.116 (rejecting Canada's argument that, for a subsidy to be specific, the granting authority must have deliberately limited access to specific enterprises within a group of enterprises, finding that the provision "is concerned with the distortion that is created by a subsidy which either in law or in fact is not broadly available.").

<sup>727</sup> C-161, SCM Agreement, art. 2.1(a)

expressed in and verifiable from an official document, its criteria strictly adhered to, and eligibility automatic. Discretion in the application of a program is an indication of specificity:

Where the granting authority, or the legislation pursuant to which the granting authority operates, establishes objective criteria or conditions<sup>728</sup> governing the eligibility for, and the amount of, a subsidy, specificity shall not exist, provided that the eligibility is automatic and that such criteria and conditions are strictly adhered to. The criteria or conditions must be clearly spelled out in law, regulation, or other official document, so as to be capable of verification.

If, notwithstanding any appearance of non-specificity resulting from the application of the principles laid down in subparagraphs (a) and (b), there are reasons to believe that the subsidy may in fact be specific, other factors may be considered. Such factors are: use of a subsidy programme by a limited number of certain enterprises, predominant use by certain enterprises, the granting of disproportionately large amounts of subsidy to certain enterprises, and the manner in which discretion has been exercised by the granting authority in the decision to grant a subsidy. . . .<sup>729</sup>

624. As the WTO Appellate Body has explained, “these provisions thus set out indicators as to whether the conduct or instruments of the granting authority discriminate or not.”<sup>730</sup> Thus, in both the subsidies specificity context, and in NAFTA’s national treatment and MFN context, the task is to discern whether all are afforded the same treatment or whether some are afforded more favorable, preferential treatment. In both contexts, it is necessary to focus on the exercise of discretion by the administering authority, because it is primarily through the exercise of discretion that the administering authority has the ability to treat one comparator more favorably than another.

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<sup>728</sup> “Objective criteria or conditions, as used herein, mean criteria or conditions which are neutral, which do not favour certain enterprises over others, and which are economic in nature and horizontal in application, such as number of employees or size of enterprise.” C-161, SCM Agreement, footnote to Art. 2.1(a).

<sup>729</sup> C-161, SCM Agreement, arts. 2(b) and 2(c).

<sup>730</sup> C-114, *United States-Definitive Anti-Dumping and Countervailing Duties on Certain Products from China*, AB-2010-3, WTO No. WT/DS379/AB/R (Appellate Body Report, 11 March 2011), ¶ 367 (emphasis added).

625. As detailed above, where, as here, application of ostensible government policy or practice leads to different practical impacts, as in the specificity context, the burden is on the administering entity to establish the existence of a policy or practice and the consistent application of a uniform methodology to implement that policy or practice.<sup>731</sup> To support a finding of consistent treatment, the government must show, as it did in *AES*, that it developed a uniform methodology that it applied on a consistent basis in furtherance of a legitimate governmental policy. On the other hand, to the extent BC Hydro exercised discretion less favorably for Celgar than for any non-U.S. pulp mill, Canada has breached its obligations under Articles 1102 or 1103 and 1503.

626. As in the subsidies context, the existence and exercise of discretion can be assessed by examining (1) the existence of objective criteria, (2) whether such criteria are clearly spelled out in an official document, (3) whether such criteria are strictly adhered to, and (4) whether adherence is capable of verification. Where objective criteria exist and are consistently followed, the administering authority does not exercise discretion. Where objective criteria do not exist, or are not consistently followed, or cannot be verified, the administering authority exercises discretion.

627. Under these tests for discretion, or, Mercer submits, any reasonable test for discretion, it is apparent that BC Hydro exercised wide-ranging discretion in its GBL determinations. There were no written criteria it followed. There were no criteria it adhered to strictly. In the absence of written guidelines, policies, or procedures, it is not possible to verify BC Hydro's adherence to a defined methodology. BC Hydro exercised enormous discretion in

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<sup>731</sup> See, e.g., CA-6, *Feldman* (NAFTA), ¶ 176; CA-2, *AES*, ¶¶ 10.3.34 –10.3.35, 10.3.47, 10.3.50.

its GBL determinations, and, in the exercise of that discretion, treated Celgar less favorably than Tembec and Howe Sound.

628. It is beyond dispute that Order G-38-01 conferred enormous discretion upon BC Hydro. As noted above, the Order established a general policy guideline for self-generator access to embedded cost power, prohibiting increased access based on historical usage. Idle, new, and incremental generation did not need to be directed to meeting the self-generators own load, but could be sold at market prices. Determination of a calculation methodology, what historical period to use (including time frame and duration), whether and how to consider pre-existing agreements, whether to adjust for unusual events, and how to determine what generation qualified as “idle” or new or incremental, all were left within BC Hydro’s discretion to determine. Indeed, the fact that the BCUC directed BC Hydro to “negotiate” the customer baselines only highlights the degree of discretion afforded. The BCUC established virtually no objective criteria, and the one it did articulate — no increased access to embedded cost power — BC Hydro did not follow for Tembec (to whom it gave increased access) or Celgar (to whom it gave reduced access).

629. BC Hydro took no action to limit its discretion, such as by developing written policies, procedures, or criteria on its own. Throughout the time BC Hydro was establishing GBLs for Tembec, Howe Sound, Celgar, and other self-generators, thereby determining how much access each would have to embedded cost utility power while selling self-generated electricity, BC Hydro had no written policies, procedures, or guidelines that it made available to self-generators, and it apparently had no internal policies, procedures or guidelines even for its own use. There was no written methodology it applied. There were no formalized internal



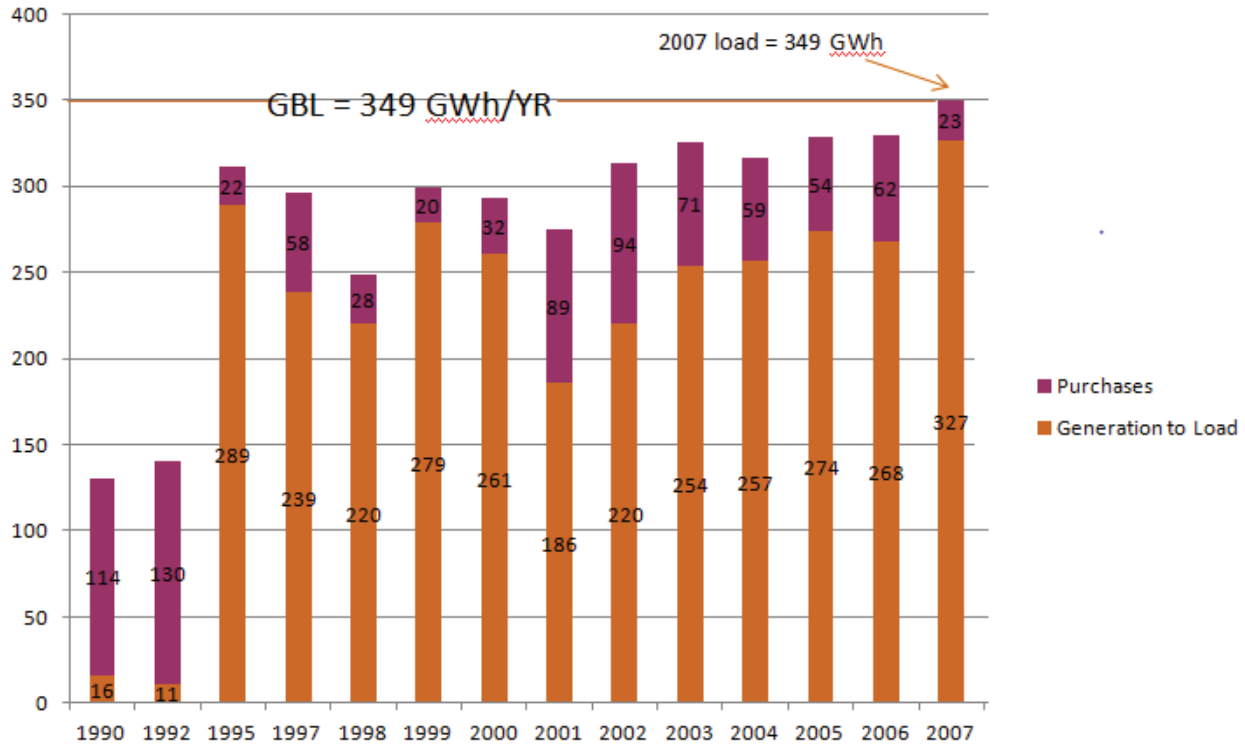
controls to ensure consistent, non-discriminatory treatment. There is not even a standard form for explaining or documenting any mill-specific GBL calculation.

630. In the exercise of its vast discretion, BC Hydro treated Celgar less favorably than Tembec and Howe Sound. Indeed, as explained above, BC Hydro established for Celgar its *highest possible* GBL. No mill can have a GBL higher than its load, and BC Hydro set Celgar's GBL at its 2007 load. If that GBL had been set based on Order G-38-01's historical usage standard, rather than Order G-48-09's net-of-load standard, it would mean that at every single discretionary decision point, BC Hydro chose an approach unfavorable to Celgar. These discretionary decisions necessarily would have included the following, among others:

1. BC Hydro computed Celgar's GBL based on its total load, rather than on its self-generation actually used to meet load, [REDACTED].
2. BC Hydro failed to utilize a uniform historical period for all in computing baseline levels, and failed to use a period around the time of Order G-38-01, as the Commission had intended. This disfavored Celgar, because Celgar significantly increased its self-generation from 2001 to 2007, from 190.5 GWh in 2001 to 350.6 GWh in 2007.
3. BC Hydro selected calendar year 2007 as Celgar's baseline period. This was the year in which Celgar achieved its highest level of electricity generation, and experienced its highest electrical load, ever, to date. The selection of *any* other year, or combination of years, would have yielded a lower GBL. The use of a one-year period thus was less favorable for Celgar than [REDACTED].
4. BC Hydro failed to treat the increased generation resulting from Celgar's Blue Goose Project, which investment Celgar made after Order G-38-01, as new or incremental generation that would not need to be used to meet Celgar's load. Blue Goose had resulted in Celgar increasing its generation level from 300.1 GWh in 2005 to 350.6 GWh in 2007, and BC Hydro treated that incremental generation as historical generation that Celgar would have to use to meet its load.

631. The chart below presents graphically Celgar's historical generation and generation-to-load data, and illustrates exactly how unfavorable BC Hydro's decisions were for Celgar:

**Figure 20**  
**Celgar's Load and How it Was Met<sup>732</sup>**  
**(GWh/year)**



632. By using 2007 data, a one-year baseline period, and load rather than generation-to-load, BC Hydro assigned to Celgar the highest GBL possible.

633. None of these determinations was compelled by Order G-38-01 or any binding written guidelines in effect at the time they were made. Each resulted from a discretionary decision BC Hydro made. Whereas BC Hydro's determination of a GBL for Celgar, viewed against the historical usage standard it applied to others, skewed against Celgar at every opportunity, BC Hydro exercised its discretion in ways favorable to both Tembec and Howe Sound.

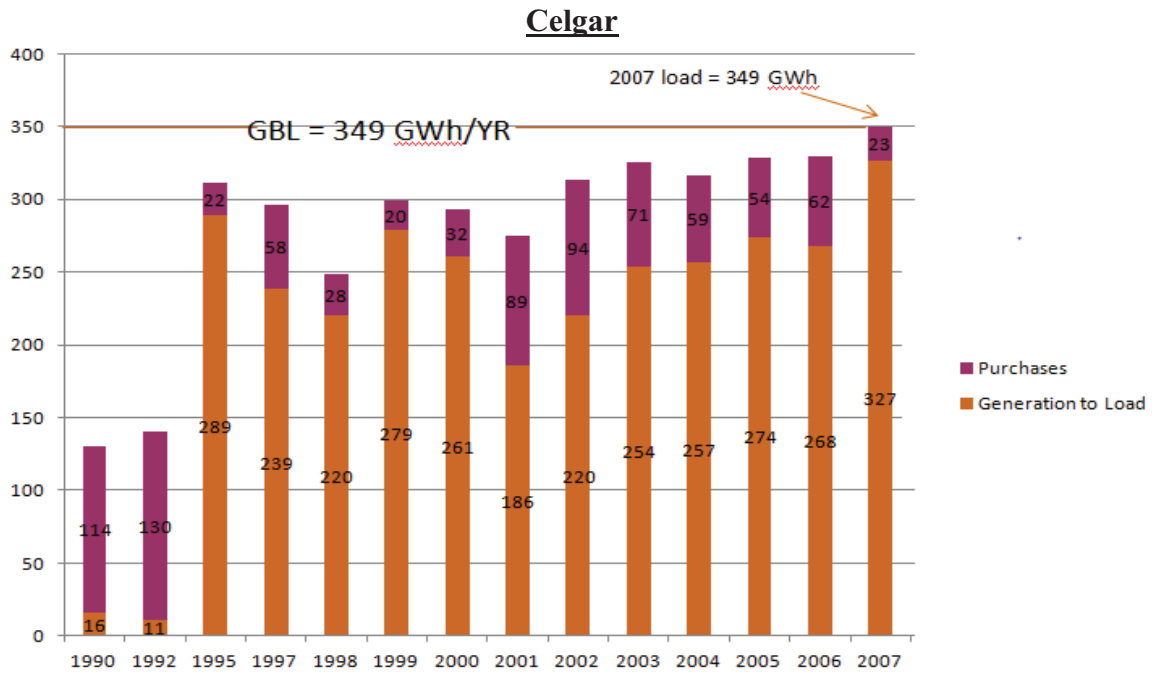
<sup>732</sup> Data from Annex A. Purchases refer to electricity purchases from FortisBC. Generation to load refers to the level of Celgar's self-generation that Celgar used to meet its own load.

634. BC Hydro favored Tembec with the unexplained seasonal shaping of its GBL, not tethered to any actual generation pattern of the mill. BC Hydro also favored Tembec in using a baseline period of [REDACTED], and in not using any recent or actual generation to load data. As noted, BC Hydro not only grandfathered the favorable treatment it had afforded Tembec in the 1997 EPA, but also provided even more favorable treatment by permitting Tembec increased access to embedded cost utility power. These decisions all were discretionary, as none is compelled by Order G-38-10 or any other extant written policy. Indeed, most of these decisions are contrary to express policies and directions contained in that Order.

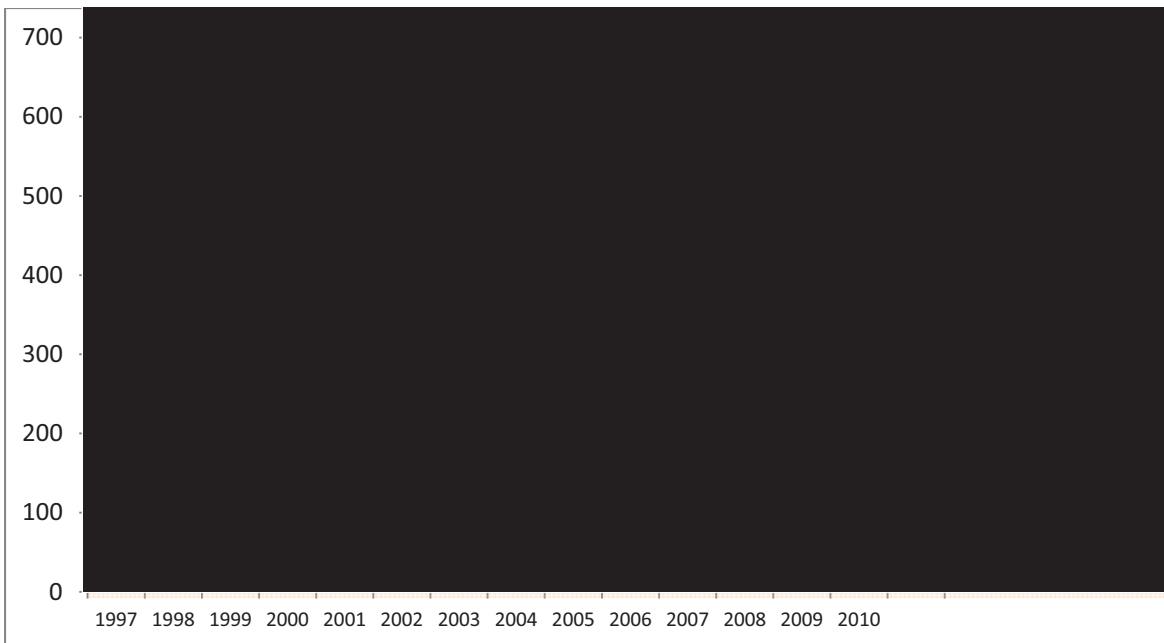
635. BC Hydro favored Howe Sound by paying Howe Sound for load displacement services that the BCUC in Order G-48-09 took from Celgar without compensation. Following Order G-38-01, BC Hydro fixed a GBL for Howe Sound that was based on a baseline period that had to have been less than one year. Using a one-year or three year period would have yielded a higher GBL. In the 2010 EPA, BC Hydro did not use Howe Sound's total generation or total load in determining its GBL. Rather, [REDACTED]  
[REDACTED] For Celgar, BC Hydro did not measure generation to load. [REDACTED]  
[REDACTED]

636. A side-by side comparison of Figures 17 and 20 above, which graph Howe Sound's and Celgar's GBL against their historical generation-to-load data, graphically highlights the difference in treatment. Celgar's GBL exceeds its generation-to-load in every year, and is drawn at the highest possible level. Howe Sound's 2001 and 2010 GBLs both fall below historical levels of its generation-to-load:

**Figure 21**  
**Celgar and HSPP GBL Comparison**



**Howe Sound**



637. Because BC Hydro exercised discretion to treat Celgar less favorably than Tembec or Howe Sound, Canada has breached its obligations under Articles 1102 or 1103 and 1503.

**4. Canada Acted Inconsistently With the Heritage Contract in Denying Celgar Any Access to BC Hydro Heritage Power**

638. As noted, in 2003 the BC Government enacted into law a Heritage Contract that guaranteed the benefits of BC Hydro's low-cost power resources (Heritage Resources) for all BC Hydro ratepayers. The 1993 PPA, and, when approved by the BCUC, its successor agreement, ensure that BC residents in FortisBC's service territory also receive a fair share of the benefits of Heritage Resources, as FortisBC is a BC Hydro ratepayer.<sup>733</sup>

639. Through Order G-48-09, the BCUC denied Celgar, alone among pulp mills in BC, all access to BC Hydro's Heritage Resources and BC Hydro-generated embedded cost power while selling electricity. This measure, without justification, treated Celgar less favorably than Canadian or third-country comparators, such as Tembec and Howe Sound, both of which are afforded access to BC Hydro Heritage Resources and BC Hydro-generated embedded cost power while they are selling self-generated electricity.

640. If Celgar simply had been granted the same access to utility embedded cost power which it was using in calendar year 2002, the year prior to the enactment of the Heritage

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<sup>733</sup>In an early 1993 decision that established the parameters for the 1993 PPA, the BCUC characterized the relationship between FortisBC (then WKP) and BC Hydro as a "hybrid, in which WKP is to be treated partly as a customer of B.C. Hydro and partly as an independent utility. **As a customer, WKP has a right to a specified amount of electricity from B.C. Hydro at the rates extended by B.C. Hydro to comparable customers.**" C-165, BCUC, Order Number G-27-93 and Accompanying Decision (22 April 1993) at 26 (emphasis in original).

Contract, as a person within the MEM once suggested, including whatever BC Hydro Heritage Power it could be deemed to have used at the time, is GBL would be 220 GWh/year,<sup>734</sup> and its Below-Load Access Percentage 37.0 percent.<sup>735</sup>

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641. Accordingly, for the reasons above, through the actions of the BCUC and/or BC Hydro, and the inaction of the MEM, Canada has afforded Mercer and its investments, Celgar, less favorable treatment than it has afforded other pulp mills in like circumstances, owned by Canadian and third-country investors, and without justification. Canada therefore has breached NAFTA Articles 1102 and 1103.

**VII. CANADA'S HAS VIOLATED ITS OBLIGATION UNDER ARTICLE 1105(1) OF NAFTA BY DENYING MERCER FAIR AND EQUITABLE TREATMENT IN ACCORDANCE WITH INTERNATIONAL LAW**

**A. The Legal Standard under NAFTA**

**1. Canada's Treatment of Mercer Violates Article 1105**

642. Celgar may accurately be described as the Cinderella of British Columbia kraft pulp mills. Celgar, of course, does not exemplify a "Cinderella Story" of happy endings. Celgar is the Cinderella before her happy ending, subjected to mistreatment by those responsible for her. Canada (through BC Hydro, the BCUC, and the MEM), although legally obligated to treat U.S. investments in a fair and equitable manner, instead has singled Celgar out for treatment that is discriminatory, arbitrary, and non-transparent. Instead of treating Celgar like all other BC kraft pulp mills, the Province has subjected Celgar to harmful, disparate treatment. Instead of providing reasons that might explain its discriminatory treatment of Celgar, BC has failed to

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<sup>734</sup> Computed as 2002 total generation of 224.0 GWh less exports of 3.9 GWh. See Annex A.

<sup>735</sup> Calculated as (349 Load - 220 GBL) / 349 Load.

provide reasons. Instead of providing a transparent regulatory regime in which Celgar could readily discern the legal requirements applicable to its access to embedded cost utility power, BC has provided an *ad hoc* regime with no clear rules or procedures, and shifting standards. This conduct discloses a lack of fairness antithetical to the purposes of NAFTA Article 1105's State obligation to accord Celgar fair and equitable treatment in accordance with international law. That this mistreatment has caused up to C\$ 243.2 million worth of harm only highlights the gravity of Canada's conduct.

a. *The Minimum Standard of Treatment under Customary International Law*

643. NAFTA Article 1105(1) requires Canada to accord Mercer's investment "treatment in accordance with international law, including fair and equitable treatment and full protection and security."<sup>736</sup> In 2001, the NAFTA Free Trade Commission issued a note of interpretation on Article 1105(1), which clarified that the minimum standard of fair and equitable treatment under NAFTA does not require "treatment in addition to or beyond that which is required by the customary international law minimum standard of treatment of aliens."<sup>737</sup>

644. This standard of treatment is progressive and not static, as Canada and the other NAFTA parties have recognized.<sup>738</sup> Thus, as the tribunal noted in *International Thunderbird*,

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<sup>736</sup> As discussed above, this obligation extends to the BCUC and MEM directly, and also to BC Hydro, through Article 1503(2).

<sup>737</sup> CA-44, OAS, NAFTA Notes of Interpretation of Certain Chapter 11 Provisions, NAFTA Free Trade Commission (31 July 2001).

<sup>738</sup> See CA-43, OECD, "Fair and Equitable Treatment Standard in International Investment Law," September 2004, at 11-12. (Mexico, Canada, and the United States, acknowledge that the minimum standard has evolved since its articulation in the *Neer* case in 1926); CA-1, *ADF* (NAFTA), n. 170 ("Canada's position has never been that the customary international law regarding the treatment of aliens was 'frozen in amber at the time of the *Neer* decision' ...

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“{T}he minimum standard should not be rigidly interpreted and it should reflect evolving international customary law.”<sup>739</sup>

645. The evolution of the minimum standard of treatment has been significant. The tribunal in *Mondev v. United States* emphasized that “*Neer* and like arbitral awards were decided in the 1920s, when the status of the individual in international law, and the international protection of foreign investments, were far less developed than they have since come to be. In particular, both the substantive and procedural rights of the individual in international law have undergone considerable development . . . . To the modern eye, what is unfair or inequitable need not equate with the outrageous or the egregious.”<sup>740</sup>

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Canada’s position has always been that customary international law can evolve over time, but that the threshold for finding violation of the minimum standard of treatment is still high.”)

<sup>739</sup> CA-15, *Thunderbird* (NAFTA), ¶ 194; CA-4, *Cargill* (NAFTA), ¶ 284 (recognizing the dynamic nature of the minimum standard); CA-40, *Chemtura Corp. v. Government of Canada* (NAFTA), UNCITRAL (Award, 2 August 2010) (Kaufmann-Kohler, Brower, Crawford) (“*Chemtura* (NAFTA)”), ¶ 112 (recognizing evolution of the minimum standard since the *Neer* case). Tribunals interpreting other treaties have also recognize this evolution. See, e.g., CA-37, *Railroad Development Corporation v. Republic of Guatemala* (CAFTA-DR), ICSID Case No. ARB/07/23 (Award, 29 June 2012) (Sureda, Eizenstat, Crawford) (“*RDC* (CAFTA-DR)”), ¶ 216 (interpreting the minimum standard as incorporated in CAFTA-DR); CA-35, *Deutsche Bank AG v. Democratic Socialist Republic of Sri Lanka*, ICSID Case No. ARB/09/2 (Award, 31 October 2012) (Hanotiau, Khan, Williams) (“*Deutsche Bank*”), ¶ 419-420 (citing *Waste Management II* (NAFTA)) (interpreting BIT).

<sup>740</sup> CA-45, *Mondev International Ltd. v. United States of America* (NAFTA), ICSID Case No. ARB(AF)/99/2 (Award, 11 October 2002) (Stephen, Crawford, Schwebel) (“*Mondev* (NAFTA)”), ¶ 116; accord CA-10, *Merrill* (NAFTA), ¶ 213 (“today’s minimum standard of treatment is broader than that defined in *Neer* and its progeny”); CA-40, *Chemtura* (NAFTA), ¶ 215 (a violation does not need to be outrageous); CA-13, *Pope & Talbot II* (NAFTA), ¶ 118 (fairness standard is an ordinary one, without any threshold limitation that the conduct be egregious, outrageous or shocking, or otherwise extraordinary); CA-39, *Waste Management, Inc. v. United Mexican States* (NAFTA), ICSID Case No. ARB(AF)/00/3 (Award, 30 April 2004) (Crawford, Civiletti, Gómez) (“*Waste Management II* (NAFTA)”), ¶ 91-93 (final award cites *Mondev* (NAFTA) and *ADF* as rejecting outrageous *Neer* standard); CA-36, *GAMI Investment, Inc. v. Government of the United Mexican States* (NAFTA), UNCITRAL (Award, 15 November

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646. The application of the international minimum standard of treatment is, of course, not exclusive to NAFTA. A variety of instruments, including the Dominican Republic-Central American Free Trade Agreement (“CAFTA”) as well as a number of bilateral investment treaties, contain provisions binding their parties to the international minimum standard of treatment.<sup>741</sup> In decisions issued pursuant to these instruments, the tribunals’ analyses are instructive for our purposes, given that they are examining the “same base floor of conduct as the minimum standard of treatment under customary international law,” *i.e.*, the standard contained in NAFTA Article 1105.<sup>742</sup>

647. As explained by the tribunal in *Mondev v. United States*, bilateral investment treaties incorporate the fair and equitable treatment standard in an attempt to incorporate customary international law; such adoption, as indicated by the United States, is both a matter of state practice and “can evidence *opinio juris*,” or a sense of legal obligation under customary international law.<sup>743</sup> Decisions issued pursuant to these treaties can thus “serve as illustrations of

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2004) (Paulsson, Reisman, Muró) (“*GAMI (NAFTA)*”), ¶ 95 (concurring with *Waste Management II (NAFTA)*).

<sup>741</sup> CA-42, Dominican Republic-Central America Free Trade Agreement, Chapter 10 (Investment) (2004), Art. 10.5. Similarly, various tribunals addressing the fair and equitable treatment standard as contained in a number of bilateral investment treaties have held that the standard applied there does not differ from customary international law. *See, e.g.*, CA-52, *CMS Gas Transmission Co. v. Argentine Republic*, ICSID Case No. ARB/01/8 (Award, 12 May 2005) (Orrego Vicuña, Lalonde, Rezek) (“*CMS*”), ¶ 266 (interpreting the treaty clause “Investment shall at all times be accorded fair and equitable treatment, shall enjoy full protection and security and shall in no case be accorded treatment less than that required by international law”); CA-53, *Occidental Exploration and Production Co. v. Republic of Ecuador*, LCIA Case No. UN 3467 (Award, 1 July 2004) (Orrego Vicuña, Brower, Sweeney) (“*OPEC*”), ¶ 180 (same).

<sup>742</sup> CA-22, *Glamis Gold (NAFTA)*, ¶¶ 608, 611; CA-4, *Cargill (NAFTA)*, ¶ 267-268 .

<sup>743</sup> CA-54, *Mondev (NAFTA)*, ¶ 111.

customary international law if they involve an examination of customary international law, as opposed to a treaty-based, or autonomous, interpretation.”<sup>744</sup>

648. In *Waste Management v. Mexico (II)*, the tribunal, considering decisions that came before it, illustrated some of the types of state action that would violate the minimum standard of fair and equitable treatment in its modern context:

The *S.D. Myers, Mondev, ADF and Loewen* {NAFTA} cases suggest that the minimum standard of treatment of fair and equitable treatment is infringed by conduct attributable to the State and harmful to the claimant if the conduct is arbitrary, grossly unfair, unjust or idiosyncratic, is discriminatory and exposes the claimant to sectional or racial prejudice, or involves a lack of due process leading to an outcome which offends judicial propriety – as might be the case with a manifest failure of natural justice in judicial proceedings or a complete lack of transparency and candor in an administrative process.<sup>745</sup>

649. Largely echoing *Waste Management II*, the tribunal in *TECO Guatemala Holdings, LLC v. Republic of Guatemala*, applying the international minimum standard of treatment in a CAFTA dispute, and relying largely on NAFTA awards,<sup>746</sup> held that the international standard “is infringed by conduct attributed to the State and harmful to the investor if the conduct is arbitrary, grossly unfair or idiosyncratic, is discriminatory or involves a lack of due process leading to an outcome which offends judicial propriety.”<sup>747</sup> The tribunal concluded

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<sup>744</sup> CA-22, *Glamis Gold* (NAFTA), ¶ 605.

<sup>745</sup> CA-39, *Waste Management II* (NAFTA), ¶ 98. The tribunal in *Biwater* extensively cited *Waste Management II* (NAFTA) in explaining that the general standard of fair and equitable treatment includes a number of components, including “Transparency, consistency, non-discrimination: the standard also implies that the conduct of the State must be transparent, consistent and non-discriminatory, that is, not based on unjustifiable distinctions or arbitrary.” CA-26, *Biwater Gauff (Tanzania) Ltd. v. United Republic of Tanzania*, ICSID Case No. ARB/05/22 (Award with Dissent, 24 July 2008) (Honotiau, Born, Landau) (“*Biwater*”), ¶ 602.

<sup>746</sup> CA-38, *TECO Guatemala Holdings, LLC v. Republic of Guatemala* (CAFTA-DR), ICSID Case No. ARB/10/23 (Award, 19 December 2013) (Mourre, Park, von Wobeser) (“*TECO* (CAFTA-DR)”), ¶ 450.

<sup>747</sup> CA-38, *TECO* (CAFTA-DR), ¶ 454.

that such is “the content of the minimum standard of treatment in customary international law.”<sup>748</sup>

650. In sum, the minimum standard of treatment involves four pillars: protection against discriminatory<sup>749</sup>, arbitrary,<sup>750</sup> grossly unfair, unjust or idiosyncratic,<sup>751</sup> or non-transparent<sup>752</sup> treatment.<sup>753</sup> A State may breach the standard with a single act involving the violation of at least one pillar, or the breach may be cumulative and become apparent only when considering the State’s acts in the aggregate, under one or more pillars.<sup>754</sup>

651. Finally, the standard of treatment primarily is focused on the effects State acts have upon a claimant, and not on the intentions of the State. Thus, for example, evidence of bad

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<sup>748</sup> CA-38, *TECO* (CAFTA-DR), ¶ 455.

<sup>749</sup> See CA-39, *Waste Management II* (NAFTA), ¶ 98; CA-36, *GAMI* (NAFTA), ¶ 94; CA-38, *TECO* (CAFTA-DR), ¶ 454.

<sup>750</sup> See CA-21, *S.D. Myers I* (NAFTA), ¶¶ 262-263; CA-10, *Merrill* (NAFTA), ¶ 187; CA-39, *Waste Management II* (NAFTA), ¶ 98; CA-36, *GAMI* (NAFTA), ¶ 94; CA-38, *TECO* (CAFTA-DR), ¶ 454.

<sup>751</sup> See CA-39, *Waste Management II* (NAFTA), ¶ 98 (“the minimum standard of treatment of fair and equitable treatment is infringed by conduct attributable to the State and harmful to the claimant if the conduct is arbitrary, grossly unfair, unjust or idiosyncratic . . .”).

<sup>752</sup> See CA-38, *TECO* (CAFTA-DR), ¶ 457; CA-10, *Merrill* (NAFTA), ¶ 187; CA-39, *Waste Management II* (NAFTA), ¶ 98; CA-23, *Metalclad*, ¶ 76.

<sup>753</sup> In addition to this general standard, tribunals also have identified several specialized claims under the minimum standard, such as for denial of justice. Mercer is not making any such specialized claim.

<sup>754</sup> See CA-38, *TECO* (CAFTA-DR), ¶¶ 658, *et seq.* (the state regulator’s issuance of a resolution that disregarded, without providing reasons, a neutral (but non-binding) commission report was arbitrary and therefore breached the minimum standard of treatment under Article 10.5 of CAFTA-DR) : CA-4, *Cargill* (NAFTA), ¶¶ 297-305 (finding that a single import permit requirement violated Article 1105 because it was “manifestly unjust”).

faith or willful neglect, while typically sufficient to establish a breach of the standard, is not necessary to establish that a breach has occurred.<sup>755</sup>

b. Canada's Acts and Omissions are Discriminatory in Violation of the Minimum Standard of Treatment of NAFTA Article 1105

652. Of the four pillars of the minimum standard of treatment, discrimination deserves special reference. Discrimination, in the form of “treatment less favorable,” also expressly is prohibited under NAFTA Articles 1102 and 1103. In order to establish a claim of discriminatory state conduct under Articles 1102 and 1103, a claimant must meet the specific standard applicable to those articles, as set forth above.<sup>756</sup> Because discrimination also is encompassed within the minimum standard of treatment, it follows that discriminatory treatment can lead to separate and independent violations of NAFTA Articles 1102, 1103, and 1105.

653. Unlike the jurisprudence that has developed under NAFTA Articles 1102 and 1103 — which has articulated specific elements that must be established to prove violative discriminatory conduct — there is a dearth of specificity with respect to the elements that must be established to establish discriminatory conduct that violates NAFTA Article 1105. The tribunal in *S.D. Myers* grappled briefly with the overlap of Articles 1102, 1103 and 1105 in prohibiting discriminatory treatment. In so doing, however, the tribunal refrained from

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<sup>755</sup> CA-4, *Cargill* (NAFTA), ¶ 296 (“The Tribunal observes that other NAFTA tribunals have expressed the view that the standard of fair and equitable treatment is not so strict as to require “bad faith” or ‘willful neglect of duty’. The Tribunal agrees. However, the Tribunal emphasizes that although bad faith or willful neglect of duty is not required, the presence of such circumstances will certainly suffice.”); CA-22, *Glamis Gold*, ¶ 560 (NAFTA) (“Although bad faith would meet the standards described, most tribunals agree that a breach of Article 1105 does not require bad faith.”).

<sup>756</sup> See *supra* Section VI.A (Discussion of legal standard applicable to claims under Arts. 1102 and 1103).

providing further specificity or the elements of discriminatory conduct that a claimant must prove to establish a violation of the minimum standard. The tribunal instead focused on whether the breach of a rule of international law would necessarily lead to a breach of Article 1105.<sup>757</sup> Other tribunals similarly have refrained from specifying the elements of a claim of discriminatory treatment under Article 1105.

654. Nevertheless, there is accord among tribunals and jurists that discriminatory treatment is conduct that breaches the precepts of the international minimum standard of treatment.<sup>758</sup> As Article 1105 is not limited by Articles 1102 and 1103, Article 1105 must prohibit additional types of discriminatory treatment.

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<sup>757</sup> CA-21, *S.D. Myers I* (NAFTA), ¶¶ 264-267 (noting, *inter alia*, that “the fact that a host Party has breached a rule of international law that is specifically designed to protect investors will tend to weigh heavily in favour of finding a breach of Article 1105.”).

<sup>758</sup> See CA-10, *Merrill* (NAFTA), ¶ 187 (“Even if the Tribunal were to accept Canada’s argument to the effect that good faith, the prohibition of arbitrariness, discrimination and other questions raised in this case are not stand-alone obligations under Article 1105(1) or international law, and might not be a part of customary law either, these concepts are to a large extent the expression of general principles of law and hence also part of international law”); CA-38, *TECO* (CAFTA-DR), ¶ 454 (noting that the minimum standard of fair and equitable treatment under CAFTA-DR includes protection against conduct that is discriminatory); CA-39, *Waste Management II* (NAFTA); ¶ 98; CA-34, *Bayindir Insaat Turizm Ticaret Ve Sanayi A.Ş v. Islamic Republic of Pakistan*, ICSID Case No. ARB/03/29 (Award, 27 August 2009) (Kaufmann-Kohler, Berman, Böckstiegel)(“*Bayindir*”), ¶ 178 (using customary international law, and citing *Waste Management II* (NAFTA) to inform a general obligation of fair and equitable treatment in the Pakistan-Switzerland BIT to include a non-discrimination factor); see also CA - 21, *SD Myers I* (NAFTA), ¶¶ 263, *et seq.*; CA- 54, *Mondev* (NAFTA), ¶ 156, CA - 55, *Loewen*, ¶ 135; CA-40, *Chemtura* (NAFTA) ¶¶ 215, *et seq.*; CA -49, Dumberry, P., THE FAIR AND EQUITABLE TREATMENT STANDARD: A GUIDE TO NAFTA (Kluwer Law International, 2013) Case Law on Article 1105 The Substantive Content of Article 1105 (Chapter 3), 207-221 (“the reasoning of some {NAFTA} tribunals suggests that discrimination is one of the elements of the FET standard that is protected under Article 1105”); CA-51, Schreuer, C., THE FUTURE OF INVESTMENT ARBITRATION (C.A. Rogers, R.P. Alford eds, 2009) Protection against Arbitrary or Discriminatory Measures (Chapter 10), p. 183-84, 189-90 (“In a number of cases, tribunals have dealt with the prohibition of unreasonable or arbitrary measures in close conjunction with the fair and equitable treatment standard. This tendency is particularly pronounced with tribunals apply the NAFTA. It may be explained, at least in part, by the fact that the NAFTA does not contain a

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655. Claimant posits that discriminatory treatment violative of customary international law must comprise discrimination that is fundamentally unfair and inequitable.<sup>759</sup> That is, discriminatory State conduct that does not violate Articles 1102 or 1103 can nonetheless violate Article 1105 if the discrimination is manifest. Thus, a *de minimis* disparity in treatment would not rise to the level of a breach of the minimum standard under Article 1105. But because a tribunal must evaluate all four pillars of the minimum standard of treatment collectively as well as separately, the tribunal should evaluate the level of the disparate treatment on a sliding scale, in conjunction with the other requirements of the minimum standard. Thus, discrimination that

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separate provision on arbitrary or discriminatory treatment.”); CA-48, Newcombe, A. and Paradell, L., LAW AND PRACTICE OF INVESTMENT TREATIES (Kluwer Law International, 2009) Minimum Standards of Treatment (Chapter 6), § 6.10. Discrimination (“discrimination may occur where the state makes an arbitrary or unreasonable distinction between similarly situated investors or investments.”). Of course, discriminatory treatment is not necessary for a breach of the minimum standard of fair and equitable treatment. For example, in *SD Myers*, the tribunal described the minimum standard as “a floor below which treatment of foreign investors must not fall, even if a government were not acting in a discriminatory manner.” CA-21, *S.D. Myers I* (NAFTA), ¶ 259.

<sup>759</sup> It is a maxim nearly as old as law itself that likes should be treated alike, and evidence to the contrary suggests a presumptive violation of the norms of equity and fairness. *See, e.g.*, CA-50, Aristotle, NICOMACHEAN ETHICS, Politics, III.9. III. 12. Therefore, a breach of customary international law would exist if “unjustifiable or arbitrary regulatory distinctions { are } made between things that are like . . . .” CA-49, Dumbery, P., THE FAIR AND EQUITABLE TREATMENT STANDARD: A GUIDE TO NAFTA (Kluwer Law International, 2013) Case Law on Article 1105 The Substantive Content of Article 1105 (Chapter 3); *see also*, CA-41, *Nykomb Synergetics Technology Holding AB v. Republic of Latvia*, SCC (Award, 16 December 2003) (Haug, Schütze, Gernandt) (“*Nykomb*”), ¶ 4.3.2 (Applying the Energy Charter Treaty but considering the meaning of “discriminatory treatment” under international law, the tribunal concluded that “in evaluating whether there is discrimination in the sense of the Treaty one should only ‘compare like with like.’ . . . {A}ll of the information available to the Tribunal suggests that the three companies are comparable, and subject to the same laws and regulations . . . . In such a situation, and in accordance with established international law, the burden of proof lies with the Respondent to prove that no discrimination has taken or is taking place.”) *See also* CA-40, *Chemtura* (NAFTA), ¶ 179 (“Article 1105 of NAFTA seeks to ensure that investors from NAFTA member States benefit from regulatory fairness,” where non-discriminatory treatment was understood to be an essential component of regulatory fairness.)

also is arbitrary, grossly unfair, unjust or idiosyncratic, and/or carried out non-transparently will violate the standard at a lower threshold of disparate treatment than if these other elements were not present.

656. The tribunal in *Chemtura Corporation v. Canada*, in the context of alleged discriminatory conduct, focused on the state obligation under Article 1105 “to ensure that investors from NAFTA member States benefit from regulatory fairness.”<sup>760</sup> Applying this principle, the tribunal found that Canada had complied with this objective where the investor was receiving treatment identical to that of other applicants for federal registration. To support this conclusion, the tribunal quoted the witness for Canada in that case. The witness stated, “under normal principles of regulatory fairness. . . . we try to treat Registrants in the same fashion. . . . I don’t see how an agreement could work if, in fact, one Registrant was getting one thing and another Registrant another.”<sup>761</sup> The tribunal concluded that Canada’s adherence to these principles fulfilled its obligation to provide fair and equitable treatment under Article 1105(1). As Professor Newcombe and Dr. Paradell have noted, “Discrimination in this sense overlaps substantially with concepts of arbitrariness, unreasonableness and unfairness.”<sup>762</sup>

657. In the present case, the disparate treatment to which Canada has subjected Mercer and its investment is manifest. As detailed above in Section VI.C-E, the BCUC and/or BC Hydro have (1) taken from Celgar by regulatory action and without compensation valuable load displacement services that BC Hydro has paid other pulp mills to provide: (2) applied a net-of-

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<sup>760</sup> CA-40, *Chemtura* (NAFTA), ¶ 179.

<sup>761</sup> CA-40, *Chemtura* (NAFTA), ¶ 179.

<sup>762</sup> CA-48, Newcombe, A. and Paradell, L., *LAW AND PRACTICE OF INVESTMENT TREATIES* (Kluwer Law International, 2009) Minimum Standards of Treatment (Chapter 6), § 6.10. Discrimination.



load regulatory standard to Celgar governing access to embedded cost utility power while selling power different than the historical usage standard they applied to other pulp mills, and (3) restricted Celgar's access to embedded cost utility power and its ability to sell its self-generated below-load electricity under a GBL computed on a different basis, with a different methodology, using a different baseline period, of different duration, than other pulp mills. The resulting harm to Mercer and its investment has been substantial, as detailed in the Damages section below and in the Expert Report of Brent Kaczmarek.

658. Moreover, neither BC Hydro nor the BCUC has acknowledged much less explained the discriminatory treatment afforded Celgar, or the arbitrary distinctions they have drawn, as discussed more fully below. Both in the result, and in the BC Hydro and BCUC processes Mercer has undergone, Canada has subjected Mercer to arbitrary, grossly unfair, unjust and idiosyncratic, and non-transparent treatment in violation of the minimum standard, and thus has denied Mercer and its investment fundamental regulatory fairness.

c. *Canada's Acts and Omissions are Arbitrary, Non-Transparent, and Grossly Unfair, Unjust or Idiosyncratic in Violation of the Minimum Standard of Treatment of NAFTA Article 1105*

659. Wholly apart from its discriminatory treatment of Mercer, Canada's conduct has denied Mercer the minimum standard of treatment required under Article 1105. Examined in its totality, Canada's conduct violates the remaining three pillars of that standard, including (1) protection from arbitrary treatment (2) the obligation to provide transparency, and (3) protection from treatment that is grossly unfair, unjust or idiosyncratic.

660. The prohibition against arbitrary treatment includes a requirement that States act with valid and clearly stated reasons for their actions.<sup>763</sup> As the tribunal in *TECO Guatemala Holdings LLC v. Guatemala* explained, “The obligation to provide reasons derives from both the regulatory framework and from the international obligations of the State under the minimum standard.”<sup>764</sup>

661. The minimum standard of fair and equitable treatment also encompasses an obligation to act transparently when taking measures that affect a foreign investor.<sup>765</sup> “{T}ransparency is closely related to the concept of the rule of law whereby it refers to procedural aspects of administrative law, such as the requirement to give sufficient reasons and the obligation to act in a comprehensible and predictable way.”<sup>766</sup> As noted by the tribunal in *Waste Management II*, State acts evidencing a “complete lack of transparency and candour in an administrative process” would violate the Article 1105 Standard.<sup>767</sup> Similarly, numerous

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<sup>763</sup> CA-38, *TECO* (CAFTA-DR), ¶ 576; *see also*, *Glamis Gold* (NAFTA), ¶ 617 (“a manifest lack of reasoning” would violate the minimum standard of fair and equitable treatment).

<sup>764</sup> CA-38, *TECO* (CAFTA-DR); ¶ 583; CA-42, Dominican Republic-Central America Free Trade Agreement, Chapter 10 (Investment) (2004) (“*CAFTA-DR*”), Article 10.5 states “Each Party shall accord to covered investments treatment in accordance with customary international law, including fair and equitable treatment and full protection and security. 2. For greater certainty, paragraph 1 prescribes the customary international law minimum standard of treatment of aliens as the minimum standard of treatment to be afforded to covered investments.”.

<sup>765</sup> *See* CA-38, *TECO* (CAFTA-DR), ¶ 457; CA-10, *Merrill* (NAFTA), ¶ 187; CA-39, *Waste Management II* (NAFTA), ¶ 98; CA-23, *Metalclad*, ¶ 76.

<sup>766</sup> CA-49, Dumberry, P., *THE FAIR AND EQUITABLE TREATMENT STANDARD: A GUIDE TO NAFTA* (Kluwer Law International, 2013) Case Law on Article 1105 The Substantive Content of Article 1105 (Chapter 3), 172.

<sup>767</sup> CA-39, *Waste Management II* (NAFTA), ¶ 98.

NAFTA tribunals have recognized that the conduct which “grossly unfair, unjust, and idiosyncratic” the minimum standard of treatment.<sup>768</sup>

662. Canada breached its obligation to provide a minimum standard of treatment to Celgar, as its actions reveal the arbitrary application of non-transparent and unclear regulatory procedures and standards in non-transparent and grossly unfair, unjust and idiosyncratic ways. BC’s legal regime governing self-generators is non-transparent, lacking any clear and binding rule of law applicable province-wide, and the BCUC and BC Hydro have made decisions on an arbitrary, *ad hoc*, and idiosyncratic basis, without providing reasons or justifications for the distinctions they have made.

663. BC’s regulatory regime for self-generators lacks a governing statute. There are no regulations. There were no written policies, procedures, or guidelines at any relevant time. The determination of a self-generator’s level of access to embedded cost utility power, and thus the amount of its self-generation output it could sell to market, is tremendously important, involving up to tens of millions of dollars per year for an individual pulp mill, and hundreds of millions of dollars over time, and affecting the relative competitive position of the different pulp mills. Yet Canada permitted such determinations to be made arbitrarily on an *ad hoc* basis, applying different regulatory standards to different mills. BC Hydro then determined GBLs with

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<sup>768</sup> See e.g., CA-39, *Waste Management II* (NAFTA), ¶ 98 (“the minimum standard of treatment of fair and equitable treatment is infringed by conduct attributable to the State and harmful to the claimant if the conduct is arbitrary, grossly unfair, unjust or idiosyncratic . . .”); CA-4, *Cargill* (NAFTA), ¶ 296 (“To determine whether an action fails to meet the requirement of fair and equitable treatment, a tribunal must carefully examine whether the complained of measures were grossly unfair, unjust or idiosyncratic . . .”); CA-38, *TECO* (CAFTA-DR), ¶ 454 (“The Arbitral Tribunal considers that the minimum standard of FET under Article 10.5 of CAFTA-DR is infringed by conduct attributed to the State and harmful to the investor if the conduct is arbitrary, grossly unfair or idiosyncratic . . .”); CA-36, *GAMI* (NAFTA), ¶ 94 (quoting *Waste Management II* (NAFTA), ¶ 98).

virtually unfettered discretion, without public input, making up rules it did not disclose as it went along, and without providing written reasons to the affected entity for the decisions it made in the exercise of its discretion, much less disclosing any of its actions publicly. The lack of a clear regulatory scheme portends a violation of NAFTA Article 1105. Indeed, if one were to set out intentionally to design a regulatory scheme that would not meet a minimum standard of treatment, the BC regulatory scheme is a useful template from which to start.

664. Celgar began its odyssey with this regulatory system from what should have been an advantageous position. It operated one of the most modern and efficient kraft pulp mills in BC. To its knowledge, over the years the Mill had invested more in electric generation assets than any other pulp mill in BC, and had installed more generation capacity relative to its load than any other pulp mill. Celgar had taken no money from BC or BC Hydro for its generation assets, it had entered into no LDAs, and it otherwise had made no commitment to use its generation for any specific purpose. Its generation output thus was unencumbered. And, at least since Mercer had taken over in 2005, the Mill never deliberately idled or shutdown pulp production or electricity production, [REDACTED]

665. Moreover, Celgar had various legal protections, or so it thought. The UCA provides that public utilities such as FortisBC have an obligation to serve their eligible customers, which include Celgar. Even if Celgar were regarded to have left utility service to the extent it had been meeting part of its own load through self-generation, the APA provided it and others within FortisBC's service territory with a right to return, subject only to notice requirements. And the 2003 Heritage Contract had preserved the benefits of BC Hydro's low cost Heritage Resources for all ratepayers, including for Celgar, through the 1993 PPA, which contained no restrictions on FortisBC's sales of PPA power to self-generators.

666. At the time of Mercer's investment in 2005, the only official governmental pronouncement regarding self-generation was BCUC Order G-38-01, issued in 2001. By its express terms, the Order applied only to BC Hydro and its customers. It did not apply to FortisBC or to Celgar. For BC Hydro's self-generating customers, the Order established a mechanism whereby they could protect their pre-existing level of access to utility power, and preserve their ability to sell at market prices new or incremental generation, by requesting a GBL from BC Hydro. The Order established no such mechanism for FortisBC self-generating customers like Celgar. To the extent the BCUC had provided any guidance at all to Celgar, the Order implied that Celgar should deal with its utility, FortisBC.

667. Moreover, even as to BC Hydro, and its self-generating customers, Order G-38-01 is remarkably vague and unclear. It contains no clear standards governing the establishment of a GBL. It articulates only a very general historical usage standard, whereby self-generators are allowed to sell their electricity provided that they do so without taking additional power from BC Hydro above historical levels. The Order vests enormous discretion in BC Hydro, which it directs to "negotiate" with its customers.

668. In and of itself, this is an idiosyncratic approach to regulation, akin to an income tax regime that directs the tax collector simply to negotiate in secret with each taxpayer. The very process itself is inherently unfair, arbitrary, and non-transparent. In the context of the EPA negotiations in which BC Hydro has established all its GBLs, where there is one buyer and multiple sellers, BC Hydro has unequal bargaining power. Moreover, different pulp mills have different bargaining power, knowledge, and skill, amongst themselves, and different political connections and importance. On top of that, as Mr. Switlishoff explains, there is a problem of one-sided, or asymmetric information. "Only BC Hydro knows how it has computed GBLs for

others. Only BC Hydro knows the data on which it relied. Only BC Hydro knows the discretionary decisions it made. It therefore is impossible for any self-generator to argue effectively for treatment similar to that afforded to one or more other pulp mills. BC Hydro alone holds all the information, and thus all the playing cards.”<sup>769</sup> This system design enables BC Hydro to discriminate, which should not be regarded as unintentional. BC Hydro jealously protected its information advantage through confidentiality obligations set out in each EPA, which were imposed as a standard term on each counter-party. No mill can ever argue that another was treated more favorably.

669. Moreover, BC Hydro is not a disinterested party. It has a direct financial stake in the GBL it sets. For all pulp mills except Celgar, it is the supplying utility. For GBLs embodied in EPAs, it is the purchaser of power in excess of the GBL. BC Hydro had direct financial incentives to afford Howe Sound a more favorable GBL than Celgar, particularly in its 2001 agreements with Howe Sound, as BC Hydro’s Powerex subsidiary was taking some [REDACTED] [REDACTED] of the revenue. The BCUC delegated regulatory authority to a party to the very transactions it was regulating.

670. In 2007, Celgar did that which Order G-38-01 implies it should do. Celgar approached its utility, FortisBC, seeking to sell its self-generated power, including new power coming on line as a result of Mercer’s Project Blue Goose investment. [REDACTED] [REDACTED] by 2008, the parties agreed to a Power Sales Agreement enabling Celgar to purchase its full electric load from FortisBC at embedded cost rates. Not just Celgar but also FortisBC believed this to be permissible under the existing legal regime. No statute or regulation prohibited it. No BCUC Order prohibited it. The 1993 PPA did not prohibit it. To the contrary,

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<sup>769</sup> Switlishoff Expert Statement, ¶ 101.

the UCA's obligation to serve, and the APA, supported the parties' view that FortisBC was required to serve Celgar's load.

671. This 2008 PSA nonetheless upset BC Hydro. A self-generator in the Province had shown the temerity to attempt to sell its own power, generated from its own resources, made without BC Hydro or Provincial investment, but not just to BC Hydro or through Powerex. BC Hydro rushed to the BCUC asking the Commission to apply the "principles" of Order G-38-01 to self-generators in FortisBC's service territory, but not the Order G-38-01 regulatory standard. In effect, BC Hydro abandoned the historical usage standard it applied to its own customers, and sought and obtained from the Commission, in 2009, Order G-48-09's net-of-load standard for Celgar. BC Hydro has never adequately explained why it sought a different standard for FortisBC, or why, in 2013, it proposed, in its replacement agreement to the 1993 PPA, to adopt for FortisBC self-generators the historical usage GBL standard. In 2008, BC Hydro arbitrarily sought to apply the more restrictive net-of-load regulatory standard to Celgar, and in 2013, just as arbitrarily, it sought a change to apply the historical usage standard it applied to its own customers.

672. The Commission accepted BC Hydro's 2008 request, and, in 2009, changed the 1993 PPA, altering the benefits and burdens undertaken by the parties to that agreement, over FortisBC's objection. After identifying the principles of Order G-38-01 as fundamental aspects of the regulatory regime, applicable to all self-generators in BC, including self-generators in FortisBC territory, without explanation, the BCUC arbitrarily adopted a different standard for FortisBC self-generators.

673. The Commission then proceeded to draw additional arbitrary distinctions in 2011, in Order G-198-11, in which it held that Tolko, a self-generator in FortisBC territory, should not

be subject to the newly-minted net-of-load standard, and permits Tolko to retain its 2001 historical usage GBL. The Commission decided that the net-of load standard applied only to self-generators that are direct customers of FortisBC, and not to self-generators that are customers of customers (City of Kelowna). It did not explain why customers of customers should get different treatment, much less better treatment, nor does it even appear to recognize that, with respect to the 1993 PPA it has amended, that Celgar is a customer of BC Hydro's customer. Indeed, to the extent the purpose of the restriction self-generator access to embedded cost utility power is to "prevent harm" to other ratepayers, there is no principled reason for applying restrictions only upon direct customers and not also downstream customers, and the BCUC provided none.

674. BC Hydro's newly found interest in FortisBC self-generators, moreover, was as inconsistent and arbitrary as the different net-of-load and historical usage regulatory standards. On the one hand, BC Hydro does not offer LDAs or other Demand Side Management programs to FortisBC self-generators, presumably because they are not BC Hydro customers and thus not part of its system planning. On the other hand, BC Hydro asserts the right to restrict the limited and indirect access these self-generators have to BC Hydro power, through the 1993 PPA (which caps FortisBC's energy take), because of the potential impact they may have on BC Hydro.

675. BC Hydro thus wants to have it both ways. It takes from FortisBC ratepayers load displacement services without compensation because they are not customers, but still wants to restrict their access to power as if they are customers. Put another way, the BCUC arbitrarily has established a system whereby BC Hydro is permitted to use carrots and sticks in its dealings with its own self-generators, but only sticks in dealing with FortisBC customers. And the BCUC gave BC Hydro a bigger stick with which to restrict FortisBC self-generators, prohibiting



outright, at least until it provided “clarification” in Order G-188-11, all arbitrage and access to embedded cost power while selling power by FortisBC self-generators, while permitting some such arbitrage and access by BC Hydro self-generators. At best, the BCUC’s Order G-48-09 was unclear as to the scope of its restrictions, causing FortisBC to deny Celgar any access to embedded cost power while Celgar was selling power. At worst, the BCUC backtracked from an egregiously discriminatory and unfair ruling.

676. It is utterly perverse and unfair for the BCUC in Order G-48-09 to have applied greater power access restrictions to FortisBC self-generators than to BC Hydro self-generators. BC Hydro provided many of the latter, including Howe Sound and Canfor, with tens of millions of dollars to install their generation. BC Hydro let mills like [REDACTED] [REDACTED] And the BC, in Order G-48-09, then subjected the Celgar mill, which received no payments from BC Hydro or the Province, and made no contractual commitments that needed to be re-negotiated, to the harshest regulatory standard of any other pulp mill, allowing no access to embedded cost utility power while it is selling its own electricity, while all other pulp mills get some. In the BC self-generator regulatory regime, no good deed goes unpunished.

677. Celgar’s unforeseen descent into regulatory purgatory only deepened when it began to “negotiate” in 2008 with BC Hydro over a GBL to be included in its Bioenergy Phase I EPA. There was no back and forth, and no negotiation. BC Hydro dictated a GBL that first just defined the demarcation point for BC Hydro’s purchase obligation, but in the end, restricted Celgar from selling below-load power to anyone. When it was assigned, the BC Hydro-determined GBL of 349 GWh/year was equal to Celgar’s most recent annual load, realized in 2007. This GBL, while consistent with BC Hydro’s proposal to the BCUC and the net-of-load

standard the Commission eventually adopted in May 2009, was inconsistent with the historical usage standard applicable to BC Hydro customers under BCUC Order G-38-01.

678. Even if evaluated under the historical usage standard, the GBL that BC Hydro assigned to Celgar reflects the worst regulatory treatment possible, as it was impossible for BC Hydro to fix a higher GBL. Every discretionary decision BC Hydro made — for which BC Hydro articulated no reason, rule, or principle — was adverse to Celgar, including (i) BC Hydro’s use of only one-year’s data, (ii) its selection of 2007 as the baseline period, (iii) its use of load as the basis for the GBL rather than the amount of self-generation Celgar actually had used to meet its load, and (iv) its rejection of Celgar’s request that its incremental Blue Goose generation not be treated as historical in computing the GBL. For other mills, BC Hydro used [REDACTED] baseline periods, or went back to [REDACTED], and measured generation applied to load. BC Hydro applied to Celgar none of the few standards governing GBLs in Order G-38-01, nor did it provide any reasons for its failure to do so. Celgar was not able to maintain even its 2007 level of access to embedded cost utility power, much less its 2001 level, because BC Hydro considered only Celgar’s load, and not the generation it had applied to serve its load. Celgar’s sales of electricity were disregarded [REDACTED]  
[REDACTED]  
[REDACTED] BC Hydro applied different methodologies entirely in computing the GBLs for Tembec and Howe Sound. BC Hydro provided no written reasons for any of the discretionary decisions it made in determination Celgar’s GBL. The determination is as non-transparent as it is arbitrary.

679. It is not until BC Hydro first releases, in June 2012, its perfunctory and parsimonious “GBL Guidelines” that Celgar learns that BC Hydro established a policy to set a

GBL using a baseline period close in time to when its counterparty first approaches BC Hydro to request a GBL. This policy not only is arbitrary and inconsistent with the Commission's intent behind Order G-38-01 when issued in 2001 "to preserve the *status quo*," but also it penalizes Celgar for not taking action earlier that it had no reason to know it should take. How would Celgar have known, before undertaking Project Blue Goose or its Green Energy Project, that it was obligated to contact BC Hydro — a utility from which it did not take service, and with which it did not have any business relationship — to preserve for itself the economic benefits of those investments?

680. In later proceedings, the BCUC appears to have acknowledged that it has treated Celgar unfairly. It has "clarified" and backed away from the absoluteness of Order G-48-09, and ruled that Celgar should have some access to embedded cost power from FortisBC's resource stack, without explaining the difference between BC Hydro power and FortisBC electricity, and why Celgar should have access to the latter but not the former while selling electricity. It has held expressly that the application of a net-of-load standard to some and a historical usage standard to others constitutes "undue discrimination."

681. But the BCUC still has provided no relief or certainty to Celgar, some five years after it issued Order G-48-09. In the interim, the market for BC biomass based green electricity largely has disappeared. The BCUC still has yet to approve any rate for Celgar to obtain either firm service from FortisBC to meet its load while selling power, or standby service to meet its needs when it cannot otherwise do so through its self-generation. And the proposed FortisBC rate currently under consideration is a Made-for-Celgar only rate, that would apply to no other self-generator in the province, embodying the peculiar notional matching mechanism and NECP Rate Rider that deprives Celgar of all the benefits of FortisBC's historical generation assets, and

subjects Celgar alone to the full cost of the required matching purchases. Celgar alone is afforded no access to BC Hydro Heritage Resources while selling power. Celgar alone is afforded no access to FortisBC legacy generation assets while selling power.

682. Celgar's complaints to the BC Government, through MEM, likewise went nowhere. Indeed, the MEM conducted no analysis of the regulatory treatment afforded to Celgar as compared to others. It simply told Celgar that a lower GBL for Celgar would mean higher costs for BC Hydro ratepayers. But this always is true, for any self-generator, and thus failed to address Celgar's claim of discriminatory treatment.

683. It is the hallmark of discriminatory and arbitrary action to single out one entity for unique and peculiar treatment, to subject it to a different and harsher regulatory standard, to apply more restrictive regulatory methodologies than other like entities, and to articulate no reasons for administering such differential treatment. It is the hallmark of non-transparent treatment for written laws, regulations, policies, procedures, and guidelines to be absent, for rules to be announced long after they are applied, and for decisions to be made without written reasons or explanation. All of these indicators are present in this case, and they are too numerous even to count. Canada has denied Celgar the minimum standard of treatment under NAFTA Article 1105.

## **VIII. DAMAGES, INTEREST, AND COSTS**

### **A. Claimant is Entitled to Compensation for Canada's NAFTA Violations**

684. Canada has breached NAFTA Articles 1102, 1103, 1105, and/or 1503, causing Mercer to suffer significant injury and loss. Mercer therefore is entitled under international law to full compensation for the losses it has sustained by reason of those breaches.

685. NAFTA Article 1135 prescribes the damages that a tribunal may award against a Party. Namely, a tribunal may award, separately or in combination, (a) monetary damages and any applicable interest or (b) restitution of property. In this case, because the harm inflicted by Canada's wrongful acts and omissions is pecuniary in nature, the appropriate remedy is monetary damages.

686. As NAFTA is silent on rules or standard for determining compensation of investors injured by a Party's NAFTA breaches, the customary international law standard applies. The Permanent Court of International Justice famously formulated the relevant customary international law standard over eighty-five years ago in its judgment in the *Chorzów Factory* case:

The essential principle contained in the actual notion of an illegal act — a principle which seems to be established by international practice and in particular by the decisions of arbitral tribunals — is that ***reparation must, as far as possible, wipe-out all the consequences of the illegal act and re-establish the situation which would, in {SIC} all probability, have existed if that act had not been committed.*** Restitution in kind, or, if this is not possible, payment of a sum corresponding to the value which a restitution in kind would bear; the award, if need be, of damages for loss sustained which would not be covered by restitution in kind or payment in place of it — such are the principles which should serve to determine the amount of compensation due for an act contrary to international law.<sup>770</sup>

687. The principle of reparation recognized in *Chorzów Factory* reflects what the ICJ more recently has characterized as a “well established rule” of customary international law.<sup>771</sup>

As the NAFTA tribunal in *S.D. Myers* explained, the “principle of international law stated in the

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<sup>770</sup> CA-24, *Case Concerning the Factory at Chorzów (Claim for Indemnity) (Germany v. Poland)*, Judgment of 13 September 1928 P.C.I.J., ser. A, No. 17, at 40 (“*Chorzów Factory*”) (*emphasis added*).

<sup>771</sup> CA-25, *Gabcíkovo-Nagymaros Project* (Hung. v. Slovakia), 1997 I.C.J. 7 (Judgement, 25 September 1997), ¶ 152; CA-26, *Biwater*, ¶ 440.

*Chorzow Factory* case is still recognised as authoritative on the matter of general principle.”<sup>772</sup>

Moreover, it is a principle that is codified in the ILC Articles of State Responsibility, Article 31(1), which provides that “the responsible State is under an obligation to make full reparation for the injury caused by the internationally wrongful act.”<sup>773</sup>

688. As provided in ILC Articles 35 and 36, reparation has two components. The first component is an obligation to provide “restitution,” which requires the State “to re-establish the situation which existed before the wrongful act was committed . . . to the extent that restitution is not materially impossible.”<sup>774</sup> Second, “in so far that such damage is not done good by restitution,” the ILC Articles recognize the State’s obligation to provide the investor compensation for the damage caused by the State’s international wrongful act.<sup>775</sup> Under this principle, reparation is complete only when the damages award serves to restore the investor to the situation it would have been in absent the State’s wrongful conduct.

689. In order to be made whole, Mercer seeks compensation from Canada to place the Celgar Mill, and Mercer’s investment in Celgar, in the same place today that they would have been in had the BCUC and BC Hydro not discriminatorily, arbitrarily, and unfairly acted in 2009 to eliminate Celgar’s access to embedded cost utility power while selling self-generated electricity, and thereby treated Celgar less favorably than it treated its non-U.S. comparators Tembec, Howe Sound, and Canfor. All of the principal measures challenged by Mercer — the issuance of Order G-48-09 and the GBL imposed by BC Hydro — took place or were made final and effective in 2009.

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<sup>772</sup> CA-21, *S.D. Myers I* (NAFTA), ¶ 311.

<sup>773</sup> CA-18, *ILC Articles*, Art. 31(1).

<sup>774</sup> CA-18, *ILC Articles*, Art. 35.

<sup>775</sup> CA-18, *ILC Articles* Arts. 35, 36.

**B. The Nature of Mercer's Damages**

690. Celgar was provided less favorable access to embedded cost utility power to meet its own load while selling power than were comparators in like circumstances, and it was denied fair and equitable treatment, under both the BCUC's imposition in Order G-48-09 of a "net-of-load" standard on Celgar alone among pulp mills, and BC Hydro's discretionary GBL methods and calculations that were less favorable to Celgar than to other pulp mills. As access to below-load embedded cost utility power enables a self-generator to engage in arbitrage, and to sell at market prices electricity it otherwise would have used to meet its own load, Mercer sustained damages resulting from the discriminatory and unfair restrictions because it was unable to sell at market prices electricity it wrongly was forced to use to meet its own load.

691. Accordingly, the Tribunal's first task in assessing damages necessarily must be to determine the GBL Celgar should have received absent its unfavorable, unfair, and inequitable treatment. The difference between that GBL and the GBL that has governed its energy sales since 2009 — its 2007 load-based GBL of 349 GWh/year — will reflect the additional amount of electricity Celgar would have been able to sell each year at market prices absent Canada's wrongful measures.

692. To determine what Celgar's GBL should have been, the Tribunal must consider each distinct element of wrongful treatment Mercer has set forth above, and, for each element the Tribunal accepts as a wrongful act, determine what Celgar's GBL would have been without the wrongful treatment caused by that element.

**1. Mercer's Entitlement to Full Damages from the Restrictions**

693. The first element of wrongful treatment Mercer has established is that Canada, through the regulatory restrictions the BCUC and BC Hydro imposed on Celgar, effectively took from Celgar load displacement services that it paid others to provide. The Province, through both Order G-48-09 and the GBL contained in Celgar's 2009 EPA, imposed a net-of-load access restriction on Celgar that it imposed on no other pulp mill in British Columbia, thereby prohibiting Celgar from selling any electricity it generated below the level of its 2007 load. (Indeed, the BCUC has not even imposed historical usage-based restrictions on other pulp mills without their agreement, as required by Order G-38-01, and frequently with compensation.) Because neither BC nor BC Hydro entered into a LDA with Celgar to obtain Celgar's agreement to provide load displacement services in exchange for compensation, whereas BC Hydro did so for Howe Sound, Canfor, and others, elimination of the Province's disparate treatment would mean that the Province could not have required Celgar to provide load displacement services at all. Celgar's GBL thus should have been zero, and it would have had the ability to sell an additional 349 GWh/year of electricity annually since 2009.

694. Put another way, Order G-48-09 violated Canada's NAFTA obligations, and Celgar should be put in the place it would have been in absent Order G-48-09 and the GBL. Absent Order G-48-09, Celgar would have put into effect its 2008 Power Supply Agreement with FortisBC, which was due to be implemented no later than January 2009, and from that time forward would have been in a position to sell all of its electricity at market prices while having full access to embedded cost utility power to meet its own load.



**2. Mercer's Entitlement to Damages  
from an Excessive GBL**

695. If the Tribunal does not accept this first element of Mercer's claims, then it must proceed to the remaining elements, which in sum and substance demonstrate that BC Hydro and the BCUC set Celgar's GBL too high relative to the treatment BC Hydro and/or the BCUC afforded to comparators Tembec and Howe Sound, both in terms of the overall result and the specific methodologies applied. This discriminatory, unfair, and inequitable treatment consists of many separate elements, including the application of different regulatory standards, and exercises of discretion in selecting GBL baseline periods, baseline durations, and computation methodologies that were unfavorable to Celgar, and, indeed, inconsistent with the BCUC's Order G-38-01 that BC Hydro was purporting to apply.

696. The proper measure of damages for these NAFTA violations should start with a determination by the Tribunal that comparable, fair, and equitable treatment requires that Mercer have access to embedded cost utility electricity while selling its self-generated electricity based on the highest benchmark afforded to a comparator. As established above, under both Canada's national treatment and MFN obligations, Mercer was entitled to the "best" treatment afforded a comparator in like circumstances.

697. As between Canada's distinct national treatment and MFN obligations, NAFTA Article 1104 provides that "Each Party shall accord to investors of another Party and to investments of investors of another Party the better of the treatment required by Article 1102 {(national treatment)} and 1103 {(MFN)}." Accordingly, Mercer is entitled to the best treatment afforded to a Canadian or third-country comparator among all of the comparators either Mercer or Canada identifies.

698. Mercer submits that the appropriate benchmark for best treatment should be the Below-Load Access Percentage. As established above, this factor accurately measures, on a comparable basis, the degree of access afforded different mills. The highest comparator Below-Load Access Percentage is [REDACTED]. For Celgar, such an access rate would translate into a GBL of [REDACTED] GWh/year, and additional energy sales of [REDACTED] GWh/year.<sup>776</sup>

699. Alternatively, should the Tribunal reject the Below-Load Access Percentage as an appropriate benchmark, it may itself re-compute Celgar's GBL by eliminating each discriminatory or unfair element that went into its calculation. Mercer has endeavored to quantify such elements above, where possible, and has provided all of the raw data necessary.<sup>777</sup> For example, the Tribunal could conclude that Celgar should have been treated like Tembec in its 2009 EPA, or Howe Sound in its [REDACTED] agreements, and have its GBL set based on its 2001 level of generation-to-load (as the BCUC intended in Order G-38-01 to maintain the *status quo*).<sup>778</sup> That figure, as already noted, would be 186.1 GWh/year. (Celgar's total generation in that year was 190.5 GWh, and its generation-to-load (subtracting export sales) was 186.1 GWh.)<sup>779</sup>

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<sup>776</sup> Celgar's below-load access would be [REDACTED] percent multiplied by its 2007 load of 349 GWh, which equals [REDACTED]. Its GBL would equal [REDACTED].

<sup>777</sup> Celgar's annual electricity generation, load, purchase, and sale data all are provided as Annex A to this Memorial.

<sup>778</sup> See Switliff Expert Statement, ¶ 216.

<sup>779</sup> Merwin Witness Statement, Annex A.

**C. Damage Methodology and Calculations**

700. The methodology and calculations of Mercer's damages, under various alternative GBL scenarios, are set forth in the Expert Report of Brent C. Kaczmarek, CFA, attached to this Memorial.<sup>780</sup> Mr. Kaczmarek is the Managing Director of Navigant Consulting, Inc. ("Navigant"), where he leads his firm's International Arbitration practice. Mr. Kaczmarek holds the designation of Chartered Financial Analyst, a globally recognized designation held by professionals demonstrating competence in the investment valuation and decision-making process.<sup>781</sup> He has served as a financial, valuation, and damages expert in over 90 international arbitrations, including at least 80 investor-state arbitrations.<sup>782</sup> In those 70 investor-state arbitrations, he was appointed as an expert by both investors and states in a balanced proportion.<sup>783</sup>

701. Mr. Kaczmarek has evaluated the damages suffered by Mercer as of 31 December 2013, and will update his analysis as appropriate at the time of Mercer's Reply Memorial.<sup>784</sup> Mr. Kaczmarek concludes that Mercer's damages have two components. First, Mercer has been harmed to the extent of lost profits on the electricity sales it has not been able to make due to the measures. Mr. Kaczmarek computes that loss as of 31 December 2013, and beginning in January 2009, when Celgar expected that its 2008 Power Supply Agreement with FortisBC would have taken effect.<sup>785</sup>

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<sup>780</sup> Kaczmarek Expert Report, ¶¶ 108 *et seq.*

<sup>781</sup> Kaczmarek Expert Report, ¶ 13.

<sup>782</sup> Kaczmarek Expert Report, ¶ 12.

<sup>783</sup> Kaczmarek Expert Report, ¶ 12.

<sup>784</sup> Kaczmarek Expert Report, ¶ 109.

<sup>785</sup> *See* Kaczmarek Expert Report, ¶ 109.

702. Second, Mr. Kaczmarek concludes that the measures have impaired the value of Celgar as an ongoing enterprise, due to the expected discounted future revenue and earnings impact of the measures on Celgar. Mr. Kaczmarek computes that loss as of 31 December 2013 as well.<sup>786</sup>

703. As noted above, Mercer's losses are a function of the GBL that Celgar should have received absent all discriminatory, unfair, and inequitable treatment. That figure is dependent upon the Tribunal's rulings on liability. Accordingly, Mr. Kaczmarek presents a table containing alternative damages calculations for various possible GBL scenarios identified by Mr. Switlishoff or counsel.<sup>787</sup>

### **1. Summary of Losses**

704. Accepting Mercer's claim that it should not have been forced to provide any load displacement services without compensation, or that it should be put in the position it would have been in absent BCUC Order G-48-09, and that its GBL should therefore have been zero, the total losses suffered by Mercer (excluding interest) are, as calculated by Mr. Kaczmarek as of 31 December 2013, C\$ 232 million.<sup>788</sup>

### **2. Interest**

705. As explained in Mr. Kaczmarek's Report, Claimant must be compensated for "the time value and opportunity cost of money" and it "would be appropriate for the tribunal to consider two different commercial rates of interest when calculating the interest due to

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<sup>786</sup> See Kaczmarek Expert Report, ¶ 109.

<sup>787</sup> Kaczmarek Expert Report, ¶¶ 21-24, 222, Tables 2, 3, 20.

<sup>788</sup> Kaczmarek Expert Report, ¶¶ 22, Table 2.

Claimant.”<sup>789</sup> In each case, interest is compounded annually based upon the effective annual interest rate applicable.<sup>790</sup>

706. Depending upon the interest rate applied, Mercer is entitled to interest of either C\$ 6 or C\$ 11 million, should the Tribunal agree that Celgar should not have been forced to provide load displacement services and that its GBL should have been zero.<sup>791</sup>

707. The present total damages (including interest) claimed by Mercer as a result of Canada’s wrongful acts and omissions, based on a valuation date of 31 December 2013, thus are up to C\$ 243 million.<sup>792</sup>

## **IX. RELIEF REQUESTED**

708. For the reasons articulated herein, Mercer respectfully requests that the Tribunal make the following determinations:

- a. The Tribunal has jurisdiction to address all of the claims asserted by Mercer in this arbitration;
- b. Canada, through the various wrongful acts and omissions described above, has violated its obligations under NAFTA with respect to Mercer and its investment, including violations of Articles 1102, 1103, 1105, and 1503(2):
- c. Mercer is entitled to compensation for the harm it has suffered as a result of Canada’s unlawful acts and omissions with respect to Mercer and its investment in Canada, in the amount of up to C\$ 232 million, plus interest starting from 1

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<sup>789</sup> Kaczmarek Expert Report, ¶¶ 217-218.

<sup>790</sup> Kaczmarek Expert Report, ¶ 221.

<sup>791</sup> Kaczmarek Expert Report, ¶ 221, Table 19.

<sup>792</sup> Kaczmarek Expert Report, ¶¶ 24, 222; Tables 3, 20.

January 2009, compounded annually at the prime rate plus 2 percent, until the date of payment of the Award.

- d. Mercer is entitled to all costs of this arbitration, including fees and expenses of its attorneys and external advisers.

Respectfully submitted,



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**Annex A**

Celgar Mill Historical Data										
A		B		C	D	E	F	G	H	I
							A+B+C-E			
Year	Turbine Generator #1 Output (MWh/year)	Turbine Generator #2 and Turbine Generator #3 Output (MWh/year)	Annual Purchases from FortisBC (MWh/yr)		Physical Export Power Sales (MWh/yr) (before losses)	Celgar Annual Mill Load (MWh/yr)	Natural Gas Used for Steam Production (GJ/yr)	Pulp Production (ADMT/Yr)	Electricity Intensity (MWh/ADMT)	
1990	15,949	-	114,161		-	130,110	713,923	174,235	0.75	
1991	13,890	-	122,320		-	136,210	708,154	151,695	0.90	
1992	10,583	-	129,746		-	140,329	1,926,553	132,570	1.06	
1993	5,866	31	190,905		-	196,802	2,342,843	183,335	1.07	
1994	-	236,253	98,256		-	334,509	2,187,618	356,654	0.94	
1995	-	308,810	22,303		20,100	311,013	2,272,132	374,054	0.83	
1996	-	287,352	28,599		25,597	290,354	2,182,835	352,173	0.82	
1997	-	251,348	57,712		12,250	296,810	2,084,008	381,576	0.78	
1998	-	231,310	28,306		10,985	248,631	1,859,556	295,647	0.84	
1999	-	301,600	19,824		22,470	298,954	2,071,780	396,096	0.75	
2000	-	278,780	31,878		17,892	292,766	3,799,135	410,414	0.71	
2001	-	190,507	88,704		4,384	274,827	1,360,898	352,263	0.78	
2002	-	223,970	93,702		3,948	313,724	1,038,254	402,458	0.78	
2003	-	258,666	71,400		4,914	325,152	946,846	422,504	0.77	
2004	-	271,326	59,220		14,028	316,518	769,525	434,117	0.73	
2005	-	300,192	54,432		26,202	328,422	655,373	444,694	0.74	
2006	-	290,413	61,523		22,213	329,723	629,254	438,855	0.75	
2007	-	350,641	22,560		23,926	349,275	303,006	476,242	0.73	
2008		374,359	24,636		36,470	362,525	432,937	485,893	0.75	
2009		359,897	26,259		35,372	350,783	472,353	466,855	0.75	
2010								502,107		
2011								488,007		
2012								490,018		
2013								447,935		