BEFORE THE ADDITIONAL FACILITY OF THE
INTERNATIONAL CENTRE FOR SETTLEMENT OF
INVESTMENT DISPUTE (ICSID)

BETWEEN:

MERCER INTERNATIONAL INC.
Claimant

AND:

GOVERNMENT OF CANADA
Respondent

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

WITNESS STATEMENT OF CHRISTIAN LAGUE

27 March 2015
I, Christian Lague, declare as follows:

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

2. I received a B.A.Sc. degree from Université Laval, Quebec in 1984 and a M.A.Sc. degree from the University of British Columbia in 1987. I am registered as a Professional Engineer (P. Eng.) with the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC). I am also registered as a Certified Energy Manager (CEM) and as a Certified Measurements and Verification Professional (CMVP) with the Association of Energy Engineers (AEE), based in Atlanta, Georgia.

3. I joined the Skookumchuck mill in 1987 as a Project Engineer. Crestbrook Forest Industries (“CFI”) owned the mill at that time. During my employment with CFI, I held the positions of Project Engineer, Maintenance Engineer, Assistant Maintenance Superintendent, and Maintenance Superintendent. Shortly after Tembec Inc. acquired CFI in 1999, the scope of the Purcell Power project was absorbed into Tembec’s Cogen Project. I was assigned to the Cogen Project team in the position of Mill Engineer until 2002. As Mill Engineer for the project, I was responsible for providing technical support for the technical specifications, implementation, and commissioning of the project, which I will describe below. This role specifically required a vision towards what potential could be unlocked for the Skookumchuck mill as a result of the project, and the vision was supported with additional capital by Tembec in the equipment ultimately selected for the project.

4. Following completion of the Cogen project, I was assigned to the position of Project Engineer and Energy Coordinator at the mill. In this role, I was responsible for implementing Tembec’s policies regarding energy conservation, electrical generation, and fossil fuel reductions at the Skookumchuck pulp mill. I explored, recommended, justified and implemented multiple projects, initiatives and programs to optimize the energy efficiency and environmental aspects of the Skookumchuck plant. This role involved many aspects, from thermodynamic and process analysis modeling, operator to executive level communications and mentoring, monitoring of government, utilities policies and regulatory process, developing technical and financial justifications for
energy and cost saving opportunities, obtaining capital for projects, monitoring the performance of energy conservation and generation projects, and implementing corrective measures to restore and maintain their effectiveness. During my tenure in this position, the Skookumchuck mill reduced its thermal energy consumption by [redacted].

The mill was also transformed from a [redacted] electrical power to a [redacted]. In this role, I was also the primary contact for the Skookumchuck mill and BC Hydro. I provided for Tembec the technical justification leading to the GBL included in Tembec’s 2009 Electricity Purchase Agreement (“EPA”) with BC Hydro.

5. I held the position of Project Engineer and Energy Coordinator until the mill’s assets were sold by Tembec in May 2013 to Skookumchuck Pulp Inc, a subsidiary of Paper Excellence Holdings Corporation. During the asset ownership transfer, I accepted a position of Engineer, Projects and Energy offered by Skookumchuck Pulp Inc. I have held this position since that time.

6. In this witness statement, I will first describe the Skookumchuck mill’s facilities and certain capital projects, and set out the terms of the 1997 Electricity Purchase Agreement between Purcell Power Corporation and BC Hydro (“the 1997 EPA”). I will then describe the mill’s operations under the 1997 EPA, and explain Tembec’s rationale for negotiating a new EPA with BC Hydro. Finally, I will discuss Tembec’s negotiation and conclusion of a new EPA with BC Hydro on August 13, 2009 (“the 2009 EPA”). This section will describe the generator baseline (“GBL”) discussions, and address certain other provisions of the 2009 EPA.

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

8. I have reviewed the documents cited in my witness statement for the purposes of preparing this witness statement. I am a fact witness in this NAFTA arbitration.
A. THE SKOOKUMCHUCK MILL

1. Overview of the Mill’s Facilities and Certain Capital Projects

9. The Skookumchuck mill is a single-line northern bleached softwood kraft (“NBSK”) pulp producer. Built in 1968 by Crestbrook Forest Industries, it originally featured a recovery boiler, a power boiler fueled by natural gas, and a backpressure turbine generator with a nameplate capacity of 15 MW (“STG1”). The recovery boiler burns black liquor, a by-product of the pulping process, to produce high-pressure steam. This steam would then run through STG1 to lower its pressure so that it can be used again in the pulping process. The pulp mill would produce steam in the gas boiler to make up for any deficit between the mill’s thermal needs and the output of the recovery boiler.

10. The mill was modernized in the 1990s, largely to bring its environmental systems into line with new regulatory standards. The original recovery boiler was decommissioned in 1994 and replaced with a new recovery boiler. Around the same time, Stothert Engineering, which oversaw a portion of the modernization efforts during the mill’s Asset Renewal project, proposed another project: to convert the decommissioned recovery boiler into a wood-fired boiler, and shut down the gas boiler. This was an attractive proposal because (1) natural gas had become more expensive for the mill; (2) the gas boiler was emitting large quantities of greenhouse gases; and (3) an abundance of wood waste was being burned inefficiently in various area sawmills, causing serious local air quality concerns. Stothert proposed to install a second turbine generator with a nameplate capacity of around 14 MW in conjunction with the wood-fired boiler.

11. Under the proposal, Stothert would be responsible for bringing in the wood waste fuel for the new boiler, and the second turbine generator would operate in parallel with STG1, which would continue operating as it had in the past. The mill did not envisage displacing energy purchases from BC Hydro with the new generating equipment as its ownership would have remained with Stothert Power, and electrical energy sales from that equipment would be to Stothert’s account. The project would only be commercially viable if the project could sell the electricity generated by the new turbine generator to third parties.
12. Crestbrook’s commercial commitment for the project would have been to make available the required real estate, to operate and maintain the equipment, and to deliver high-pressure steam to the project. In return, it would receive medium- and low-pressure steam from the project’s back pressure extraction turbine. All of the steam generated by the new hog boiler would have been conveyed to the project’s steam turbine through the mill’s steam systems. A complex steam metering agreement would have been implemented to account for steam delivered to the project by the mill, and steam returning to the mill.

13. The project thus had four outcomes: first, to displace natural gas consumption at the Skookumchuck mill; second, to reduce waste wood burning at local sawmills with the direct result of improved local air quality; third, to reduce overall greenhouse gas emissions in the area; and fourth, to generate more electricity to sell to third parties.

14. Stothert and Crestbrook created Purcell Power Corporation (“Purcell Power”) to implement the project. Purcell Power was successful in BC Hydro’s 1994 Request for Proposals, and concluded an EPA with BC Hydro on September 5, 1997. I will discuss the terms of this agreement in the next section.

15. In 1999, Tembec purchased Crestbrook, acquiring, among other things, the Skookumchuck mill and the 1997 EPA. The second turbine generator proposed by Stothert Power had not yet been purchased at the time Tembec acquired the mill, and after considering its options, Tembec decided to install a 43.5 MW condensing steam turbine generator (“STG2”) to replace the original STG1 and to meet the delivery obligations of the 1997 EPA. Tembec placed the order for STG2 in late 1999, with

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1 Electricity Purchase Agreement between Purcell Power Corp. and BC Hydro, 5 September 1997, R-190.


3 A backpressure turbine generator converts high-pressure steam into medium- and low-pressure steam that can be used in the pulping process. If a mill has only a backpressure turbine generator, and is producing more steam than is required in the pulping process, the excess steam must be vented to the atmosphere. The electricity generating potential of that steam is lost. A condensing turbine can also fulfill this steam
The Terms of the 1997 EPA

18. While I was not a part of the negotiations of the 1997 EPA between Purcell Power and BC Hydro, I was working at the Skookumchuck mill at the time and was aware that the negotiations were taking place as I was being consulted from time to time on the engineering and maintenance aspects of the equipment being considered. I base my description of the terms of the 1997 EPA on my experience managing the mill’s energy contracts, in optimizing operating practices, and in implementing multiple projects aimed
at increasing overall plant energy efficiency and maximizing biomass firing under the obligations of the 1997 EPA, and on my review of the document. I was not a member of the EPA operating committee, but I supervised an electrical engineer (Mr. Karl Unger) who was a member of that committee, and I was aware of its activities.

19. The 1997 EPA had a term of twenty years, and required Purcell Power to deliver

5 The agreement

6 The 1997 EPA also

7

20. In addition, one of the agreement’s goals was to reduce CO₂ emissions from the mill. The 1997 EPA therefore included

8 In this context, Tembec understood that

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4 Electricity Purchase Agreement between Purcell Power Corp. and BC Hydro, 5 September 1997, s. 2.1 at bates 016971, R-190.

5 Electricity Purchase Agreement between Purcell Power Corp. and BC Hydro, 5 September 1997, s. 7 at 016977, R-190.

6 The 2009 EPA contained transition provisions to account for the two remaining years of deliveries under the 1997 EPA. I discuss these in ¶ 53 below.

7 Electricity Purchase Agreement between Purcell Power Corp. and BC Hydro, 5 September 1997, s. 7.3 at bates 016977, R-190.

8 Electricity Purchase Agreement between Purcell Power Corp. and BC Hydro, 5 September 1997, s. 16 and Appendix 2 (“Emission Reductions Computation”) at bates 016986 and 016996, R-190. Section 16.3 states:
Combined with the strong policies and directives from Tembec regarding minimizing fossil fuel consumption, when Tembec amalgamated with Crestbrook, it acquired an already-concluded EPA. BC Hydro had agreed to purchase When deciding whether to install a 43.5 MW turbine to replace STG1 and to meet the delivery obligations in the 1997 EPA, Tembec approached BC Hydro, with contract in hand, to determine how deliveries might be measured under a new configuration. Around the same time, Tembec and BC Hydro negotiated a new Electricity Supply Agreement (“ESA”) to set out the specific terms under which BC Hydro would supply electricity to the Skookumchuck mill. While the ESA was not signed until September 2001, these discussions were held in 1999 and 2000, when Tembec was making and implementing its capital investment decisions. While I did not have a direct role in the discussions, as indicated above, one of my direct reports was directly involved in the discussions. I was aware of those discussions and of the mechanisms discussed for the “metering”

9 See also Electricity Purchase Agreement between Purcell Power Corp. and BC Hydro, 5 September 1997, ss. 7.1 at bates 016977 and 016970, R-190.

10 See, for example, Crestbrook Forest Industries Ltd. Minutes of Meeting, Crestbrook Forest Industries Ltd. (CFI) Cogeneration Project Meeting No. 5 dated 30 May 2000, R-524.
23. The EPA and the ESA are tied together, and cannot operate separately. The Appendix to the ESA between Tembec and BC Hydro sets out the manner in which electricity sales and purchases were measured and accounted for under these two agreements.\textsuperscript{11} Tembec’s generation was divided into four tranches.

24. Tranche 1 is the [REDACTED] 10.8 MW of electricity that the mill generated. 

25. Tranche 2 is 

Tranche 3 is 

Tranche 4 is [REDACTED] 

\textsuperscript{11} Appendix to Electricity Supply Agreement between British Columbia Hydro and Power Authority and Tembec Industries Inc. ("Determination of Electricity Supplied and Taken Under RS 1821/1880"), 14 September 2001 at 30-31, R-188.
3. Tembec’s Operations Prior to the 2009 EPA

From 2001 to 2009, Tembec operated the Skookumchuck mill under the 1997 EPA and the 2001 ESA. There are a number of factors that affected Tembec’s operational decisions under the 1997 EPA. For example, as I stated above, hog fuel boilers can be very unstable if they are not run at high operating rates because they are sensitive to the quality, quantity, and distribution of fuel within the boiler. Wet hog fuel, for example, will not burn as well nor produce as much steam as dry hog fuel, and might require some auxiliary natural gas firing to produce the same, or smaller, amount of steam. Each boiler has a minimum firing rate at which it must be run to provide stable steam flows and prevent circulation problems. Due to its design, the Skookumchuck’s hog boiler must be run at a minimum firing rate of...
27. Other factors affected how much Tembec would generate.

28. Second, when the mill began operating under the 1997 EPA in 2001, BC Hydro’s industrial customers were subject to Rate Schedule 1821, a flat rate for energy purchases. The price to displace purchases at the margins was the same under this rate as the price to displace purchases at the core. In 2006, BC Hydro implemented Rate Schedule 1823 for industrial customers, a two-tiered rate that was designed to encourage energy

13 Electricity Purchase Agreement between Purcell Power Corp. and BC Hydro, 5 September 1997, s. 16 and Appendix 2 (“Emission Reductions Computation”) at bates 016986 and 016996, R-190.

14 Electricity Supply Agreement between British Columbia Hydro and Power Authority and Tembec Industries Inc. (“Determination of Electricity Supplied and Taken Under RS 1821/1880”), 14 September 2001, s. 6 at 7, R-188.
conservation, or to increase customer self-generation. Each customer was assigned a customer baseline (“CBL”), which governed the amount of electricity it could purchase at the lower Tier 1 price. Once a customer exceeded 90% of its CBL in purchases, the higher Tier 2 rate would apply to all further energy purchases. There was thus a stronger incentive to displace purchases at the margins (the Tier 2 price).

30. Around the same time, Tembec had purchased a thermo-mechanical pulping (“TMP”) mill at Chetwynd.

31. Skookumchuck’s CBL was set

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15 Skookumchuck’s CBL was set
Finally, Tembec’s Ra
4. Tembec’s Rationale for Negotiating a New EPA with BC Hydro

tional 1997 EPA obligations,

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The American housing and construction crisis in 2008-9 intensified this reality as the BC lumber market was immediately and directly affected. As a result of the crisis, the pulping industry’s fibre supply became chronically curtailed. Sawmills, a primary source of both chips for pulping and hog fuel for burning, were either significantly curtailing their production, or shutting down completely. Tembec’s sawmills at Elko and Canal

16 Without the 1997 EPA obligations, Electricity Purchase Agreement between Purcell Power Corp. and BC Hydro, 5 September 1997, s. 20.6 at bates 016991, R-190.
Flats were no exception. The Skookumchuck mill requires... 

35. The Skookumchuck mill requires... 

Figure 2: Price of Hog Fuel Delivered to the Skookumchuck Mill (2006-2012)

<table>
<thead>
<tr>
<th>Year</th>
<th>Price (CAD/BDT)</th>
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<tbody>
<tr>
<td>2006</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td></td>
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<td>2008</td>
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<tr>
<td>2011</td>
<td></td>
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<tr>
<td>2012</td>
<td></td>
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</tbody>
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36. At times during the crisis, hog fuel was so scarce that non-traditional and more costly sources of wood wastes were considered and utilized, such as wood wastes normally left in the forest, or used for higher value added purposes than as fuels. Some of this wood waste... To maintain its EcoLogo... 

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18 Tembec also owned a sawmill facility in Cranbrook, This mill shut down during the crisis.
certification,\textsuperscript{19} Tembec\textsuperscript{20} deemed Hog fuel shortages and low quality conditions did not abate until 2012, which was after Tembec sold its sawmills to Canfor. The abatement was a gradual process driven by lumber market shifting, lumber demand increasing, and capital investments in local sawmills, with the quality of available hog fuel gradually increasing first, and prices decreasing afterwards.

38. To compound the problem\textsuperscript{21} Tembec deemed

39. In addition,

40. Tembec concluded

\textsuperscript{19} EcoLogo is a nationally recognized certification standard in Canada by which projects are evaluated to determine whether they qualify as “green energy”. It is administered by Environment Canada.
41. Tembec and BC Hydro began discussions about a new EPA in December 2008, and negotiations began in earnest in early 2009. Tembec and BC Hydro agreed to negotiate the new EPA on the basis of the Bioenergy Call for Power Phase I contract terms, which included a GBL.\textsuperscript{22}

B. THE 2009 EPA BETWEEN TEMBEC AND BC HYDRO

1. GBL Discussions

42. On March 10, 2009, I wrote to BC Hydro with a proposed method for determining a GBL for the Skookumchuck mill in the absence of the 1997 EPA.\textsuperscript{23} In my letter, I

\textsuperscript{22} The 2007 BC Energy Plan instructed BC Hydro to obtain incremental capacity only from green or “BC Clean” sources (“BC Clean” energy refers to “alternative energy technologies that result in a net environmental improvement relative to existing energy production.”): \textit{See} Information Sheet \#7, Green & Clean Energy Definitions, BC Hydro Provincial Integrated Electricity Planning Committee Meeting 2, February 22-23, 2005, \textbf{R-525}. In 2005, Skookumchuck was one of the first pulp mills to succeed in having its electrical generation certified under the EcoLogo program as “renewable low impact.” Under the 1997 EPA,

\textsuperscript{23} Email from Chris Lague to Matt Steele re: Tembec Skookumchuck site GBL calculations, dated March 10, 2009, \textbf{R-193}.

\textsuperscript{24} Email from Chris Lague to Matt Steele re: Tembec Skookumchuck site GBL calculations, dated March 10, 2009 at 020997, \textbf{R-193}. 

16
43. Without the obligations of the 1997 EPA, 

44. 

45. 

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

26 Email from Chris Lague to Matt Steele re: Tembec Skookumchuck site GBL calculations, dated March 10, 2009 at 020997-8, R-193.

27 I assumed for the purposes of my model that TG1 had been available for continuous service since 2001: Email from Chris Lague to Matt Steele re: Tembec Skookumchuck site GBL calculations, dated March 10, 2009 at 020998, R-193.

28 See Email from Chris Lague to Matt Steele re: Tembec Skookumchuck site GBL calculations, dated March 10, 2009, Exhibit 4 at 021003, R-193.

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

30 Prior to 2001, the Skookumchuck mill
46. I had technical discussions about my proposal throughout March 2009 with Mr. Norman Wild, an engineer at BC Hydro, and with Mr. Lester Dyck, who was my primary point of contact at BC Hydro for the GBL discussions. On March 31, 2009, I provided Mr. Wild with additional information on the Skookumchuck mill’s operations, including

47. BC Hydro

While BC Hydro accepted that

48. Frank Lin of BC Hydro verbally informed Tembec by voicemail in early April 2009 that based on BC Hydro’s calculations, the GBL for the Skookumchuck mill’s 2009 EPA would be set at 14 MWh/h (or 122.64 GWh/year on the basis of 8,760 operating hours). Tembec accepted this number and proceeded to negotiate the terms of the EPA with the Power Acquisitions team at BC Hydro on that basis.

49. The Claimant objects in its Reply to the model we used to set the GBL for the Skookumchuck mill. It argues that BC Hydro

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

32 See, for example, Email exchange between Chris Lague and Norman Wild, dated 23 March to 25 March 2009, R-526.

34 Mr. Switlishoff also asserts that,

50. In reality, nothing could be farther from hypothetical.


51. The Claimant also states in its Reply that there is no evidence to support the assumption that,

36 Claimant’s Reply, ¶ 413. See also Claimant’s Reply, ¶ 428. Hydro’s conclusion, in setting Tembec’s extraordinarily low 14 MW GBL, that

This is simply an assumption unsupported by any analysis or evidence.”

Mr. Switlishoff reaches similar conclusions in his second report:

As demonstrated by Tembec’s actual conduct in the period from May to August 2009,

52. As I explained above, the Skookumchuck mill was operating under the terms of the 1997 EPA and the 2001 ESA,

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37 Claimant’s Reply, ¶ 454.
38 Switlishoff Report II, ¶ 75.
39 Appendix to Electricity Supply Agreement between British Columbia Hydro and Power Authority and Tembec Industries Inc. (“Determination of Electricity Supplied and Taken Under RS 1821/1880”), 14 September 2001 at 31, R-188.
2. Conclusion of the 2009 EPA

53. Tembec and BC Hydro concluded the 2009 EPA on August 13, 2009.\textsuperscript{40} Regulatory requirements and BCUC approvals delayed COD until 14 November 2009. The parties agreed to the average hourly GBL of 14 MWh/h. I believe this GBL was a fair compromise, and allowed Tembec and BC Hydro to continue negotiating the EPA without additional delays which would have been required to further refine the GBL calculations.

54. The Bioenergy Call for Power Phase I form contract also gave proponents the ability to shape their deliveries. Accordingly, Tembec proposed a shape for its GBL and firm energy deliveries, which BC Hydro accepted.\textsuperscript{41} In electing to deliver electricity on basis, and suggesting a shape for our deliveries under the EPA, Tembec undertook the risk of delivering or be subject to penalties.

55. As the 1997 EPA could only the remaining years of the 1997 EPA were incorporated into the 2009 EPA. Conceptually,

\begin{footnotesize}
\begin{itemize}
  \item \textsuperscript{40} BC Hydro and Tembec Electricity Purchase Agreement, 13 August 2009, \textbf{R-198}.
  \item \textsuperscript{41} BC Hydro and Tembec Electricity Purchase Agreement, 13 August 2009, Appendix 2 at 017088, \textbf{R-198}.
  \item \textsuperscript{42} See BC Hydro and Tembec Electricity Purchase Agreement, 13 August 2009, Appendix 3, Energy Price – Hourly Firm, s 3.1, \textbf{R-198}.
\end{itemize}
\end{footnotesize}
56. There were several requirements Skookumchuck had to meet in order to reach COD on the 2009 EPA. Tembec and BC Hydro signed a new ESA on December 7, 2009 and the mill reached COD on the 2009 EPA in November 2009. While the mill had met other commercial and technical requirements by the time the EPA was signed in August 2009, the delayed COD was the result of a new BC court decision requiring BC Hydro and/or proponents of projects similar to Skookumchuck’s to demonstrate adequate consultation of all First Nations who may have interests in the areas of operations. BC Hydro required such evidence in order to support its filing of the EPA before the BCUC under Section 71 of the BC Utilities Commission Act. The delay in COD

57. Mr. Switlishoff describes Tembec’s 2009 EPA with BC Hydro as a

To support his assertion, he points to the fact that Mr. Switlishoff ignores the reasons for this

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

59. I affirm this witness statement in support of Canada's Rejoinder Memorial in the 
Mercer International Inc. v. Government of Canada NAFTA arbitration and for no 
improper purpose.

AFFIRMED BEFORE ME 

at the City of  

in the Province of British Columbia, 

this 27th day of 

March, 2015.

A Commissioner for taking Affidavits for 

British Columbia.


CHRISTIAN LAGUE


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