

October 13, 2017

Board of Commissioners of Public Utilities
Prince Charles Building
120 Torbay Road, P.O. Box 21040
St. John's, NL A1A 5B2

Attention: Ms. Cheryl Blundon
Director of Corporate Services & Board Secretary

Dear Ms. Blundon:

Re: Application of Newfoundland and Labrador Hydro for Approval of Revised Capacity Assistance Agreement with Corner Brook Pulp and Paper Limited

Please find enclosed the original and nine (9) copies of the Application, affidavit, draft order and a draft agreement for up to 90 MW of winter capacity assistance between Newfoundland and Labrador Hydro (Hydro) and Corner Brook Pulp and Paper Limited (CBPP), filed for the Board's approval under sections 70(1), 71 and 80 of the *Public Utilities Act*.

Currently, Hydro has 2 capacity assistance agreements in place with CBPP. The first agreement enables Hydro to call on CBPP to provide up to 60 MW of capacity assistance during winter peak demand periods. The second agreement with CBPP is referred to a Supplemental Capacity Assistance Agreement and provides for up to an additional 30 MW of capacity assistance through a further interruption of mill operations by CBPP of its operating load that is normally provided by its hydro generating facilities.

This application is to combine the two existing Corner Brook Pulp and Paper agreements into one single Revised Capacity Assistance Agreement that will provide up to 90 MW of capacity assistance to Hydro under consistent terms and conditions.

As compared with Hydro's two existing capacity assistance agreements with CBPP, the Revised Capacity Assistance Agreement provides, among other benefits to Hydro, increased operational flexibility as it is available for six months of the year as opposed to four; improved response time as the notification period is reduced from 20 minutes to 10; and, increased security for long term planning due to its longer term of five years or until the commissioning of the Muskrat Falls plant, whichever is earlier, all for a comparable fixed payment rate.

The Revised Capacity Assistance Agreement is in general alignment with Hydro's other capacity assistance agreements with Vale Newfoundland & Labrador Limited and Praxair Canada Inc. In the Revised Capacity Assistance Agreement the total annual payment for capacity assistance is \$2,565,000. CBPP will also be paid a variable credit for capacity assistance provided.

Ms. Cheryl Blundon
Public Utilities Board

2

Please contact the undersigned should you have any questions.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO



Michael S. Ladha
Legal Counsel and Assistant Corporate Secretary

ML/bs

cc: Gerard Hayes – Newfoundland Power Inc.
Paul Coxworthy – Stewart McKelvey
Sheryl Nisenbaum – Praxair Canada Inc.
ecc: Larry Bartlett – Teck Resources Ltd.

Dennis Browne, Q.C. – Consumer Advocate
Thomas O' Reilly, Q.C. – Cox & Palmer

Denis Fleming – Cox & Palmer

IN THE MATTER OF the *Electrical Power Control Act*, RSNL 1994, Chapter E-5.1 (the *EPCA*) and the *Public Utilities Act*, RSNL 1990, Chapter P-47 (the *Act*) and regulations thereunder;

AND IN THE MATTER OF an Application by Newfoundland and Labrador Hydro for the approval, pursuant to Sections 70 (1), 71 and 80 of the *Act*, of the Revised Capacity Assistance Agreement between Newfoundland and Labrador Hydro and Corner Brook Pulp and Paper Limited.

TO: The Board of Commissioners of Public Utilities (the Board)

THE APPLICATION OF NEWFOUNDLAND AND LABRADOR HYDRO (Hydro) STATES THAT:

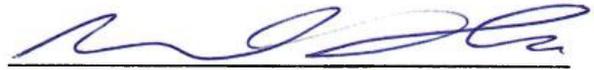
1. Hydro is a corporation continued and existing under the *Hydro Corporation Act*, 2007, is a public utility within the meaning of the *Act* and is also subject to the provisions of the *Electrical Power Control Act, 1994*.
2. Hydro and its Island Industrial Customer, Corner Brook Pulp and Paper (CBPP), are parties to a Service Agreement, whereby Hydro sells electrical power and energy to CBPP which agreement is approved by, and which sales are at rates set by the Board and which were last approved by the Board Order No. P.U. 26(2017).
3. CBPP has hydroelectric generating capability to provide most but not all of its own electricity generation needs and which, from time to time, enable it to provide electrical capacity to Hydro.

4. Hydro and CBPP are parties to a capacity assistance agreement for 60 MW of capacity assistance, which commenced on December 1, 2014 and expires on March 31, 2018, providing a reduction in the overall island electrical system demand during peak hours and periods of system constraint and which was approved by the Board by Order No. P.U. 49(2014).
5. Hydro and CBPP are parties to a supplemental capacity assistance agreement which also expires on March 31, 2018 providing for up to an additional 30 MW of capacity assistance through a further interruption of mill operations by CBPP of its operating load that is normally provided by its hydro generating facilities providing a further reduction in the overall island electrical system demand during peak hours.
6. This Application is to combine the two CBPP agreements into one single revised agreement (the Revised Capacity Assistance Agreement) and to extend the term of the agreement for five years or until the commissioning of the Muskrat Falls plant, whichever is earlier.
7. The proposed Revised Capacity Assistance Agreement between Hydro and CBPP is contained in Schedule A to this Application.
8. The proposed Revised Capacity Assistance Agreement will provide up to 90 MW of capacity assistance to Hydro. The key terms and conditions of the revised agreement

are summarized in in the detailed justification document attached as Schedule B to this Application.

9. The Revised Capacity Assistance Agreement provides Hydro increased flexibility, on a cost effective basis, to deal with unanticipated generation or load events that may otherwise require the implementation of a customer outage program to provide peak load management in order to maintain system integrity.
10. Specifically, as compared with Hydro's two existing capacity assistance agreements with CBPP, the Revised Capacity Assistance Agreement provides, among other benefits to Hydro, increased operational flexibility as it is available for six months of the year as opposed to four; improved response time as the notification period is reduced from 20 minutes to 10; and, increased security for long term planning due to its longer term of five years or until the commissioning of the Muskrat Falls plant, whichever is earlier, all for a comparable fixed payment rate.
11. Hydro hereby requests that the Board make an Order approving the Revised Capacity Assistance Agreement, as provided in Schedule A and the recovery of purchased power expenses arising therefrom as reasonable and prudent and properly chargeable to operating account.

DATED at St. John's in the Province of Newfoundland and Labrador this 13th day of October 2017.



Michael S. Ladha
Counsel for the Applicant
Newfoundland and Labrador Hydro
500 Columbus Drive
St. John's, NL A1B 4K7
Telephone: (709) 778-6671
Facsimile: (709) 737-1782

THIS AMENDED AND RESTATED CAPACITY ASSISTANCE AGREEMENT made in the Province of Newfoundland as of the day of 2017.

BETWEEN: **NEWFOUNDLAND AND LABRADOR HYDRO** a corporation and agent of the Crown constituted by statute, renamed and continued by the *Hydro Corporation Act, 2007* Chapter H-17 of the 2007 Statutes of Newfoundland and Labrador and having its head office at St. John's, in the Province of Newfoundland and (hereinafter called "Hydro"), of the first part;

AND **CORNER BROOK PULP AND PAPER LIMITED** a company organized under the laws of Newfoundland and Labrador (hereinafter called the "Customer"), of the second part.

WHEREAS Hydro and the Customer are parties to an agreement whereby Hydro sells Electrical Power and Energy to the Customer which agreement was most recently approved by the Board of Commissioners of Public Utilities for the Province of Newfoundland ("the Board") on February 8, 2012 in Order No. P.U. 4(2012) (herein after called the "Service Agreement");

AND WHEREAS the Customer has hydroelectric generating capability which enables it to provide electrical capacity to Hydro;

AND WHEREAS Hydro and the Customer are parties to an agreement whereby the Customer reduces its load pursuant to a request of Hydro such that it provides up to 60MW of relief on the island transmission system which agreement is dated as of December 1, 2014 and was approved by the Board on November 28, 2014 in Order No. P.U. 49(2014) (hereinafter called the "Original Capacity Assistance Agreement");

AND WHEREAS Hydro and the Customer are parties to an agreement whereby the Customer reduces its load pursuant to a request from Hydro such that it provides up to a further 30MW of relief on the island transmission system which agreement is dated as of December 14, 2014 and did not require Board approval (hereinafter called the "Supplemental Capacity Assistance Agreement");

AND WHEREAS Hydro and the Customer desire to enter into a new agreement whereby the Customer reduces its load pursuant to a request of Hydro such that it provides up to 90MW of relief on the island transmission system, which agreement shall supersede and replace the Original Capacity Assistance Agreement and the Supplemental Capacity Assistance Agreement;

AND WHEREAS the parties acknowledge that any such agreement shall not be binding unless and until it is approved by the Board;

THEREFORE THIS AGREEMENT WITNESSETH that the parties agree as follows:

ARTICLE 1
INTERPRETATION

In this Agreement, unless the context otherwise requires,

- 1.01 (a) “Amount of Power on Order” means the same as it does under the Service Agreement.
- (b) “Capacity Assistance” means a reduction of 20, 40, 60 or 90 MW in the Mill Load pursuant to a request of Hydro, following (i) the Customer producing power at its maximum available 60Hz hydraulic generating capacity upon Hydro’s request, and (ii) upon Hydro’s request, a cessation of any and all Interruptible Demand by the Customer.
- (c) “Capacity Assistance Request” means a request by Hydro from its Energy Control Center to the Deer Lake Power control room to provide Capacity Assistance in the amounts set out in Article 2.
- (d) “Capacity Assistance Period” is a period of not less than four (4) hours and not more than six (6) hours during which Capacity Assistance is provided in accordance with a Capacity Assistance Request.
- (e) “Capacity Fee” means a fee payable by Hydro to Customer as set forth herein of \$2,565,000 per Winter Period.
- (f) “Demand” means the same as it does under the Service Agreement.
- (g) “Extended Duration Capacity Assistance” means committed Capacity Assistance provided by Customer to Hydro for periods of 24 hours or greater.
- (h) “GTVC” means the previous month’s Gas Turbine Variable Cost as provided on Customer’s monthly invoice as per the Service Agreement and expressed as a cost per KWh.
- (i) “Force Majeure” means any event that is unforeseeable, and beyond a party’s control, which causes a delay in or interrupts or prevents the total or partial performance by that party of any or all of its obligations under this Agreement including, without limiting the generality of the foregoing, war, riot, acts of vandalism, rebellion, epidemic, lightning, earthquake, flood, fire, explosion, government decrees or prohibitions or restrictions by any authority of competent jurisdiction affecting the obligations of the party suffering Force Majeure.

(j) "Ice Condition Event" means any event of frazil ice or other ice conditions at or upstream of the Customer's Deer Lake generating station penstocks, resulting in whole or in part in the Customer being unable to meet a Capacity Request from Hydro. The Customer shall not be required to reduce its Mill Load below the Mill Essential Services Load but shall deliver Capacity Assistance for the excess.

(k) "Interruptible Demand" means the same as it does under the Service Agreement.

(l) "Mill Essential Services Load" means that amount of Mill Load required to operate the Customer's main power boiler and essential heating and lighting but in any event shall not exceed 10 MW.

(m) "Mill Load" means the Customer's 60 Hz electrical power requirements as taken at its 66 kV supply buses, or at such other points agreed to in writing by the parties.

(n) "Secondary Energy" means the same as it does under the Agreement dated May 13, 1977 binding upon the parties and amended June 3, 1988.

(o) "Winter Period" means the period from November 1 to April 30 inclusive.

1.02 This Agreement amends, restates and replaces the Original Capacity Assistance Agreement and the Supplemental Capacity Assistance Agreement which shall both cease to have effect as of the date of execution of this Agreement.

ARTICLE 2 **CAPACITY ASSISTANCE**

2.01 Hydro may make Capacity Assistance Requests to the Customer in amounts of 20 MW, 40 MW, 60 MW or 90 MW, or other amount as confirmed in a test pursuant to clause 2.07 hereof, no more than twice in a calendar day, no more than thirty times in a Winter Period, each of a duration of not less than 4 hours and not more than 6 hours, and such that the total duration of such Capacity Assistance Periods does not exceed 150 hours in a Winter Period.

2.02 A Capacity Assistance Request shall be made to the Customer upon not less than 10 minutes notice prior to the time that the Capacity Assistance Period is scheduled to commence. Any request to cease a Capacity Assistance Period, or to change the amount of Mill Load reduced during a Capacity Assistance Period, shall be made upon 10 minutes notice but a change in the level of Capacity Assistance provided in a Capacity Assistance Period does not i) constitute a new Capacity Assistance Request; or ii) disentitle the Customer to payment under section 3.02 hereof for the period in the initial Capacity Assistance Request.

- 2.03 Any Capacity Assistance Request made by Hydro may be cancelled by Hydro if notice to cancel that Capacity Assistance is given by Hydro to the Customer not less than 10 minutes before the time that the Capacity Assistance Period was scheduled to commence.
- 2.04 Hydro shall have the sole and absolute discretion to decide the loading of its gas turbine generators. Hydro shall include any Capacity Assistance offered by Customer pursuant to this Agreement in the generating unit dispatch guidelines to be followed by Hydro in order to maintain sufficient spinning reserve, maintain the reliability of the island transmission system and minimize service impacts to customers.
- 2.05 Hydro may request from Customer and Customer may provide Extended Duration Capacity Assistance in amounts of 40 MW or 50 MW no more than ten times in a Winter Period, each of a duration of not more than 72 hours. A request for Extended Duration Capacity Assistance shall be made to the Customer upon not less than 12 hour notice prior to the time that the Extended Duration Capacity Assistance period is scheduled to commence and may only be made on or after the 5th day following the end of the previous Extended Duration Capacity Assistance period. Provided that the request for Extended Duration Capacity Assistance is made to the Customer upon not less than two week notice prior to the time that the Extended Duration Capacity Assistance is scheduled to commence and that there is no request for Extended Duration Capacity Assistance during such 2-week notice period, the duration of such Extended Duration Capacity Assistance may be up to two weeks. Extended Duration Capacity Assistance requests by Hydro shall be voluntary at Customer's discretion.

Periods of Extended Duration Capacity Assistance shall not count towards the total duration of Capacity Assistance of 150 hours nor 30 times in a Winter Period as per clause 2.01 hereof. For Extended Duration Capacity Assistance, Hydro shall pay Customer the rate set out in section 3.03 hereof.

- 2.06 Hydro may make a Capacity Assistance Request or a request for Extended Duration Capacity Assistance outside of a Winter Period and Customer compliance with such a request is voluntary at Customer's discretion. For Capacity Assistance Requests outside of a Winter Period, Hydro shall pay Customer the rate set out in section 3.03 hereof.
- 2.07 The Customer must demonstrate the capability to reduce its load pursuant to a request of Hydro such that it provides up to 90MW of relief on the island transmission system. A test will be carried out at a mutually agreed time between October 15 and October 31 before each Winter Period. If a level of Capacity Assistance of 90MW is not sustained for a continuous period of 1 hour in the test, the Customer will be provided an opportunity to repeat the test at another mutually agreed time. If the level of Capacity Assistance is not sustained in the second test, the Capacity Fee will be reduced to reflect the prorated amount of Capacity Assistance which the Customer has demonstrated it can sustain. No

payment shall be made under this agreement for Capacity Assistance tests carried out under this clause 2.07.

- 2.08 Notwithstanding anything else contained in this Agreement, the maximum energy available for Capacity Assistance and Extended Duration Capacity Assistance per Winter Period is 100 GWh. For greater certainty, any Capacity Assistance outside a Winter Period is not included in the 100 GWh maximum.

ARTICLE 3
PAYMENT

- 3.01 Subject to Article 4, Hydro shall pay the Capacity Fee whether or not Hydro makes any Capacity Assistance Request, fifty percent (50%) of which shall be billed at the end of January and the balance at the end of April in each Winter Period that this agreement is in effect.
- 3.02 In addition to the fees payable under Clause 3.01, Hydro shall pay the Customer a variable rate fee for the maximum Capacity Assistance requested and provided during each Capacity Assistance Period based on the greater of (i) the applicable percentage of the previous month's GTVC (as determined below), or (ii) a predetermined rate of \$0.20/KWh, but which shall not exceed \$0.26/KWh. The applicable percentage of the previous month's GTVC shall be determined on a sliding scale based on the maximum Capacity Assistance at such time for the Winter Period, as follows:
- i) 0 to 7.5 GWh/Winter Period – 90% of GTVC;
 - ii) Greater than 7.5 to 100 GWh/Winter Period – 80% of GTVC.
- 3.03 In addition to the fees payable under section 3.01, for periods of Extended Duration Capacity Assistance or for any Capacity Assistance outside of a Winter Period, Hydro shall pay the Customer a variable rate fee for the maximum Capacity Assistance requested and provided during each Capacity Assistance Period based on the greater of (i) 80% of the previous month's GTVC, or (ii) a predetermined rate of \$0.20/KWh, but which shall not exceed \$0.26/KWh.
- 3.04 The amounts paid for any Capacity Assistance shall be the only amounts payable and no amounts shall be payable under the Secondary Energy arrangements that exist under separate agreements with respect to Capacity Assistance provided during a Capacity Assistance Period under this Agreement but otherwise the Secondary Energy arrangements will apply.
- 3.05 The Customer shall render its accounts two times each Winter Period, once at the end of January and once at the end of April, and Hydro will, within twenty (20) days after the date of receiving such account, make payment in lawful money of Canada at the

appointed office of the Customer or by means of direct deposit into a Canadian bank account of the Customer. Any amounts in arrears or overdue to the Customer after expiration of such twenty (20) days shall bear interest, before and after judgment, at the prime rate of the Bank of Montreal plus 2% annually until such balance is paid. The prime rate of the Bank of Montreal is the annual rate so established and announced by such bank at its head office in Canada as an annual rate of interest for demand loans payable in Canadian Dollars in Canada.

ARTICLE 4
CAPACITY FEE ADJUSTMENTS AND FORCE MAJEURE

- 4.01 Subject to Clauses 4.02 and 4.03, in the event that Hydro makes a Capacity Assistance Request and the Customer fails to provide the Capacity Assistance, the Capacity Fee, after adjustments, if any, pursuant to Clause 4.02, will be reduced by 50% as a result of the first failure to provide Capacity Assistance as requested during a Winter Period. For each additional failure to provide Capacity Assistance, the Capacity Fee will be reduced by a further 25%. If the Customer fails to provide Capacity Assistance three times during a Winter Period, the Customer forfeits 100% of the Capacity Fee.
- 4.02 If Hydro has given a Capacity Assistance Request at a time when the Customer is experiencing an Ice Condition Event, then there will be no reduction made to the Capacity Fee pursuant to clause 4.01, however, at the end of the Winter Period, an adjustment shall be made to the Capacity Fee paid or payable for that Winter Period so that, in result, the total amount of the Capacity Fees shall be reduced by \$85,500 (1/30 of \$2,565,000) for each Ice Condition Event. The Customer shall use all reasonable efforts to remedy the Ice Condition Event as quickly as possible and shall resume compliance with its obligations hereunder as soon as reasonably possible upon termination of the Ice Condition Event. The Customer shall notify Hydro's Energy Control Centre when it is experiencing an Ice Condition Event that may impact its ability to fulfill its obligation under this Agreement. The Customer shall also notify Hydro's Energy Control Centre when the Ice Condition Event has cleared.
- 4.03 A party shall not be liable for failure to comply with its obligations hereunder due to an act of God or event of Force Majeure. The party affected by Force Majeure shall promptly give written notice to the other party of the event of Force Majeure, stating therein the nature of the event, the obligations affected, the reasons and expected duration of any suspension of performance and the anticipated date of termination of the event of Force Majeure. The affected party shall use all commercially reasonable efforts to remedy the event of Force Majeure as quickly as possible, including not exceeding Mill Essential Services Load, and shall resume compliance with its obligations hereunder as soon as reasonably possible upon termination of the event of Force Majeure.

ARTICLE 5
TERM OF AGREEMENT

5.01 This agreement commences as of November 1, 2017 and expires on the earlier of April 30, 2022 or the commissioning of the Muskrat Falls Generating Plant.

5.02 Notwithstanding Clause 5.01, either party may terminate this Agreement if:

- i) the other party has failed to pay any amount due pursuant to this Agreement, or
- ii) the other party is in material default of any provision of this Agreement (other than a payment default) for a period of [30] days,

and in both cases such defaulting party fails to remedy such default within thirty (30) days after receipt of written notice thereof from the other Party.

IN WITNESS WHEREOF, each Party has executed this Agreement by its duly authorized representatives.

Corner Brook Pulp and Paper Limited

Newfoundland and Labrador Hydro

Per: _____

Per: _____

Title: _____

Title: _____

**CORNER BROOK PULP AND PAPER
CAPACITY ASSISTANCE AGREEMENT REVISION**

NEWFOUNDLAND AND LABRADOR HYDRO

October 2017

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Appendix A – Corner Brook Pulp and Paper - Capacity Assistance Agreement

Appendix B – Corner Brook Pulp and Paper - Supplemental Capacity Assistance Agreement

Appendix C – Vale – Amended Capacity Assistance Agreement (Generation)

Appendix D – Vale – Capacity Assistance Agreement (Load Curtailment)

Appendix E – Praxair – Capacity Assistance Agreement

1 **1.0 Background**

2 Hydro presently has capacity assistance agreements in place with the following industrial
3 customers:

- 4 • Corner Brook Pulp and Paper (2 agreements);
- 5 • Vale (2 agreements); and
- 6 • Praxair (1 agreement)

7

8 All agreements are presently set to expire March 31, 2018.

9

10 This application is to combine the two Corner Brook Pulp and Paper agreements into one
11 single agreement (the Revised Capacity Assistance Agreement) and to extend the term of
12 the agreement for five years or until the commissioning of the Muskrat Falls plant,
13 whichever is earlier.

1 **2.0 Existing Capacity Assistance**

2 Hydro presently has five capacity assistance¹ agreements in place with its industrial
3 customers, two with Corner Brook Pulp and Paper (CBPP), two with Vale Newfoundland &
4 Labrador Limited (Vale), and one with Praxair Canada Inc. (Praxair). In addition to the five
5 formal agreements, Hydro can request that Newfoundland Power Inc. (Newfoundland
6 Power) implement its curtailable service options to provide a capacity benefit to Hydro.
7 Each of the existing capacity assistance arrangements are described below.

8

9 Corner Brook Pulp and Paper

10 The first capacity assistance agreement with CBPP was approved by the Board of
11 Commissioners of Public Utilities (the Board) in Order P.U. 49(2014). The agreement enables
12 Hydro to call on CBPP to provide up to 60 MW of capacity assistance during winter peak
13 demand periods by both reducing its firm demand supplied by Hydro (9 MW), and by
14 providing 51 MW of capacity to the Island Interconnected System (IIS) from the CBPP
15 hydraulic generating facilities. CBPP interrupts its production activities to provide this
16 capacity assistance to Hydro.

17

18 The second agreement with CBPP is referred to a Supplemental Capacity Assistance
19 Agreement. This agreement contracts for up to an additional 30 MW of capacity assistance
20 through a further interruption of mill operations by CBPP of its operating load that is
21 normally provided by its hydro generating facilities.

22

23 Vale Newfoundland & Labrador Limited

24 The first capacity assistance agreement with Vale is for the supply of up to 15.8 MW of
25 capacity assistance from Vale's standby diesel generating facilities. The amount of capacity
26 assistance available last winter (2016-2017) was confirmed to be 7.6 MW during annual

¹ Capacity assistance can be provided in two ways. The first is by a customer providing additional generation capacity to Hydro, such as diesels or hydraulic generation. The second way a customer can provide capacity assistance is by curtailing its load and reducing overall system demand. Customers do this by shutting down a portion or all of their operations.

1 generator testing and it is anticipated that annual testing planned for fall 2017 will yield
2 similar results.

3

4 The second agreement with Vale is a load curtailment agreement, approved by the Board in
5 Order P.U. 3(2017). The agreement enables Hydro to call upon Vale to curtail its firm
6 demand supplied by Hydro by 6 MW during winter peak demand periods.

7

8 Praxair Canada Inc.

9 Similar to the agreement with Vale, in Order P.U. 55(2016), the Board approved a load
10 curtailment agreement with Praxair for 5 MW.

11

12 Newfoundland Power Inc.

13 In addition to the five agreements outlined above, Hydro can request that Newfoundland
14 Power implement its curtailable service option. The Newfoundland Power billing demand
15 approved by the Board in Order No. P.U. 47(2014) includes a curtailable credit to reflect the
16 curtailable load it provides to Hydro. The amount of curtailable load that was provided
17 during winter 2016-2017 by Newfoundland Power was 11 MW.

18

19 Table 1 summarizes the key terms and conditions of Hydro's existing capacity assistance
20 agreements.

Table 1
Summary of Existing Capacity Assistance Agreements

Provider	Contracted Capacity	Rate Structure	Conditions
CBPP	Up to 60 MW in 20 MW increments i.e. 20 MW, 40 MW or 60 MW	<u>Fixed</u> \$7 per kW per month for each of the four winter months December through March for a total of \$1.68M <u>Variable</u> \$0.20 per kW per hour for the maximum assistance provided	<ul style="list-style-type: none"> • Notification Period - 20 minutes • Interruption Period - 3 hours (minimum) to 6 hours (maximum) • Maximum number of curtailments - 2 per day, 20 per winter • Total Assistance Period - 100 hours per winter • Penalties - Three strike clause² • Expiry - March 31, 2018 • Test - No Test³, 60 MW planned as available
CBPP Supplemental	Maximum of 30 MW Remaining of CBPP capacity except essential services at the mill.	<u>Fixed</u> No fixed payment <u>Variable</u> Up to 10 MW = 0.55 per kW per hour Greater than 10 MW = \$0.65 per kW per hour	<ul style="list-style-type: none"> • This agreement is supplemental to the first contract for up to 60 MW • Notification Period - 15 minutes • Other conditions as per initial 60 MW contract • Penalties - none • Expiry - March 31, 2018 • Test - No Test³, Net 22 MW planned as available.
Vale Generation	Up to 15.8 MW	<u>Fixed</u> \$7 per kW per month for each of the four winter months December through March for a total maximum of \$442k <u>Variable</u> Cost of fuel	<ul style="list-style-type: none"> • Notification Period - 20 minutes • Interruption Period – Up to 6 hours (maximum) • Maximum number of curtailments - 2 per day, 20 per winter • Total Assistance Period - 100 hours per winter • Penalties – Downward adjustment based on average capacity⁴ • Expiry - March 31, 2018 • Test - Tested annually, 7.6 MW planned as available
Vale Load Curtailment	6 MW	<u>Fixed</u> \$7 per kW per month for each of the four winter months December through March for a total maximum of \$168k <u>Variable</u> \$0.20 per kW per hour for the maximum assistance provided	<ul style="list-style-type: none"> • Notification Period - 60 minutes • Interruption Period - 3 hours (minimum) to 6 hours (maximum) • Maximum number of curtailments - 2 per day, 10 per winter • Total Assistance Period - 50 hours per winter • Penalties – Three strike clause • Expiry – March 31, 2018 • Test – Tested annually, 6 MW planned as available
Praxair	5 MW	<u>Fixed</u> \$7 per kW per month for each of the four winter months December through March for a total maximum of \$140k <u>Variable</u> \$0.20 per kW per hour for the maximum assistance provided	<ul style="list-style-type: none"> • Notification Period - 60 minutes • Interruption Period - 3 hours (minimum) to 6 hours (maximum) • Maximum number of curtailments - 2 per 24 hour period⁵, 10 per winter • Total Assistance Period - 50 hours per winter • Penalties – Three strike clause • Expiry - March 31, 2018 • Test – Tested Annually, 5 MW planned as available

² If the customer fails to provide the requested capacity assistance, the fixed fee is reduced by 50% in the first instance.

For the second failure to provide capacity assistance, the fixed fee is reduced by a further 25%. If the customer fails to provide capacity assistance three times during the winter, 100% of the fee is forfeited.

³ While there is no test as a part of the capacity assistance agreements, CBPP are required to do a generation test annually as part of the generation credit provisions in CBPP's piloted service agreement (per Board Order No.'s P.U. 17(2009), P.U. 15(2011) and P.U. 4(2012)).

⁴ The agreement was amended to provide economic incentive to Vale after multiple failures to provide the full amount of capacity assistance to Hydro early in the winter 2015-2016. The amended agreement compensates Vale for making capacity available upon Hydro's request but if the full amount of capacity is not delivered upon any request by Hydro, the agreement provides for a downward adjustment to those payments by basing the capacity payment upon the average amount of capacity delivered in the winter season.

1 2.1 Operating Experience

2 During winter 2014-2015, winter 2015-2016 and winter 2016-2017 Hydro made three, 13
3 and 18 requests for capacity assistance respectively.⁶ A summary of the requests made by
4 Hydro is provided in Table 2 below.

Table 2
Summary of Capacity Assistance Requests

Customer	Number of Requests	Total Number of Hours of Assistance Provided	Total Capacity Assistance Provided (equivalent kWh)
Winter 2014-2015			
CBPP	1	5.6 hours	336,000 kWh
Vale	2	10.6 hours	114,480 kWh
2014-2015 Total			450,480 kWh
Winter 2015-2016			
CBPP	2	11 hours	660,000 kWh
Vale	11	30.3 hours	277,770 kWh
2015-2016 Total			937,770 kWh
Winter 2016-2017			
CBPP	4	18 hours	840,000 kWh
Vale	10	68.5 hours	403,677 kWh
Praxair	4	6 hours	28,725 kWh
2016-2017 Total			1,272,402 kWh

⁵ In the case of Praxair, their operations require Hydro to give extra consideration to a second Load Curtailment Request in a 24 hour period:

- Notification of the second Load Curtailment Request must be provided to Praxair no less than 60 minutes prior to scheduled end of the first Load Curtailment Period
- A request to cease a second Load Curtailment Period shall be made with not less than 15 minutes notice prior to the scheduled end of the first Load Curtailment Period.
- Whenever there are two Load Curtailment Periods in a twenty-four (24) hour period, Praxair's operations require a 24 hour rest during which no Load Curtailment Requests can be made.

⁶ Hydro filed the Capacity Assistance Reports for winter 2014-2015, winter 2015-2016 and winter 2016-2017 on April 15, 2015, April 14, 2016 and April 17, 2017 respectively. In those reports, Hydro provided details on the usage and benefit of these contracts.

1 These capacity assistance requests helped to maintain generation reserves on both the IIS
2 and Avalon Peninsula systems and, in the case of significant system events, lessen the
3 impact to customers. The total cost of Hydro’s capacity assistance agreements for the past
4 three winter seasons is provided in Table 3 below.

Table 3
Summary of Capacity Assistance Costs

Customer	Fixed	Variable	Total
Winter 2014-2015			
CBPP	\$1,680,000	\$72,000	\$1,752,000
Vale	\$267,412	\$15,784	\$283,196
2014-2015 Total			\$2,035,196
Winter 2015-2016			
CBPP	\$1,680,000	\$132,000	\$1,812,000
Vale	\$250,460	\$67,691	\$318,151
2015-2106 Total			\$2,130,151
Winter 2016-2017			
CBPP	\$1,680,000	\$168,000	\$1,848,000
Vale	\$338,800	\$136,064	\$474,864
Praxair	\$113,750	\$5,745	\$119,495
2016-2017 Total			\$2,442,359

5 All of the existing agreements are set to expire at the end of March 2018 and Hydro has
6 been exploring the requirements and alternatives for renewals.

7 **3.0 Proposed Revised Capacity Assistance Agreement with CBPP**

8 **3.1 Terms and Conditions**

9 The proposed Revised Capacity Assistance Agreement between Hydro and CBPP is
10 contained in Schedule A to the Application. This proposed agreement will provide up to 90

- 1 MW of capacity assistance to Hydro. The key terms and conditions of the revised agreement
2 are summarized in Table 4 below.

Table 4
Summary of Revised Corner Brook Pulp and Paper
Capacity Assistance Agreement

Provider	Capacity	Rate Structure	Conditions
Corner Brook Pulp and Paper	Up to 90 MW in the following increments: - 20 MW - 40 MW - 60 MW - 90 MW	<p><u>Fixed</u> \$4.75 per kW per month for each of the six winter months November through April for a total of \$2,565,000⁷</p> <p><u>Variable</u> A minimum of \$0.20 per kW per hour to a maximum of \$0.26 per kW per hour for the maximum assistance provided as determined on the following sliding scale: I. 0 to 7.5 GWh/Winter Period – 90% of GTVC;⁸ II. Greater than 7.5 to 100 GWh/Winter Period – 80% of GTVC.</p>	<ul style="list-style-type: none"> • Notification Period - 10 minutes • Interruption Period - 4 hours (minimum) to 6 hours (maximum) • Maximum number of curtailments - 2 per day, 30 per winter • Total Assistance Period - 150 hours per winter • Penalties - Three Strike Clause • Expiry – April 30, 2022 or the date of commissioning of the Muskrat Falls Generating Plant, whichever is earlier • Test - Tested annually

- 3 Below is an overview of the most significant changes in the proposed Revised Capacity
4 Assistance Agreement in comparison to the existing agreements with CBPP:
- 5 • Increased Availability - The proposed Revised Capacity Assistance Agreement
6 contracts CBPP for capacity assistance for six months, November 1 through to April
7 30 as opposed to four months from December 1 through March 31. This change will

⁷ The total fixed payment to CBPP for capacity assistance will increase due to the revised agreement; this is largely due to the winter period being extended from four months in the existing agreement to six months in the proposed revised agreement.

⁸ GTVC = the previous month's Gas Turbine Variable Cost as provided on Corner Brook Pulp and Paper's monthly invoice and expressed as a cost per KWh.

- 1 provide additional operational flexibility to Hydro should there be unforeseen delays
2 to the maintenance season or an early arrival/late departure of winter weather;
- 3 • Improved Response Time – The previous notification period for CBPP was 20
4 minutes and the new agreement has a 10 minute period. This will allow the capacity
5 assistance to be provided to the system in a faster timeframe which is beneficial
6 during unplanned and forced outages;
 - 7 • Fixed Payment Rate - The proposed fixed payment rate for the proposed Revised
8 Capacity Assistance Agreement is \$4.75 per kW per month as opposed to the \$7 per
9 kW per month in the existing contract for the first 60MW of capacity assistance. The
10 supplemental agreement had no fixed payment but it was also voluntary
11 participation by CBPP;
 - 12 • Variable Rate - The variable rate in the proposed Revised Capacity Assistance
13 Agreement provides Hydro with a benefit in comparison to running combustion
14 turbines. The first block of capacity assistance, up to 7.5 GWh is at 90% of GTVC and
15 with subsequent amounts up to 100 GWh at 80% of GTVC. There variable rate has a
16 ceiling of \$0.26 per kW per hour to protect Hydro against rising diesel prices and a
17 floor of \$0.20 per kW per hour to provide a minimum revenue incentive to CBPP to
18 provide capacity assistance. Previously, the variable rate in the first capacity
19 assistance agreement was set at \$0.20 per kW per hour, while the rate for the
20 supplemental agreement started at \$0.55 per kW per hour and ratcheted up to
21 \$0.65 per kW per hour for amounts greater than 10 MW;
 - 22 • Annual Testing – Similar to other industrial customers like Vale and Praxair, CBPP will
23 now be required to test and prove their ability to respond to a capacity assistance
24 request in advance of November 1 each year;
 - 25 • Longer Term – The previous agreement could be terminated by either party in the
26 spring of each year whereas the new agreement remains in effect for five years or
27 until the date of commissioning of the Muskrat Falls Generating Plant, whichever is
28 earlier. This will allow for greater certainty for Hydro and enable the capacity to be
29 included in its longer term planning horizon;

- 1 • Extended Duration Capacity Assistance – The new contract contains provisions
2 whereby Hydro can request CBPP to provide capacity assistance to Hydro in the
3 amount of 40 to 50 MW continually for up to two weeks at 80% of GTVC. Since there
4 is no fixed fee for this service, it is at CBPP’s discretion as to whether they comply
5 with Hydro’s request; and
- 6 • Capacity Assistance Outside of a Winter Period– Hydro may make requests for
7 capacity assistance outside of the six winter months. Similar to the Extended
8 Duration Capacity Assistance in the previous bullet, the variable payment is 80% of
9 GTVC and there is no fixed fee associated with this service, therefore it is at CBPP’s
10 discretion as to whether they comply with Hydro’s request. While Hydro does not
11 anticipate the need for capacity assistance during the non-winter months, it is
12 recognized that with all of the system changes and integration activities planned for
13 2017 through to Muskrat Falls in-service that this contract provides Hydro with
14 additional operational flexibility.

16 **3.2 Operational Considerations**

17 Upon approval of the proposed revised Capacity Assistance Agreement with CBPP, Hydro
18 will continue to incorporate capacity assistance into its IIS reserve assessments and dispatch
19 the resource as appropriate to reliably supply customer demand requirements.

20 **4.0 Value of Capacity Assistance**

21 Capacity assistance arrangements are used in many other Canadian jurisdictions⁹ as a
22 means to minimize disruptions to customers in the event of a contingency or to maintain
23 sufficient level of operating reserves for reliable operation of the grid. Since the winter of
24 2014-2015, Hydro has been working with the industrial customers on the island to identify
25 cost effective opportunities for them to provide capacity to the IIS while maintaining the
26 integrity of their operations.

⁹ Through publically available information, Hydro was able to identify various forms of capacity assistance programs for industrial customers at Nova Scotia Power, Manitoba Hydro, SaskPower, New Brunswick Power and Hydro Quebec.

1

2 The location of CBPP's generation and paper making facilities and the constraints that exist
3 with the current transmission infrastructure, along with the high load on the Avalon
4 Peninsula, have been a barrier for Hydro to fully maximize the value of the capacity
5 assistance that could be provided by CBPP. With the construction of TL 267 nearing
6 completion and target in-service date of December of this year, the transmission constraints
7 will no longer be a barrier and additional capacity from the west coast of the island will
8 provide increased benefit to the entire IIS.

9

10 The upcoming fall and winter season will begin a significant period of system integration
11 and change for Hydro with the planned completion of both the Maritime Link and the
12 Labrador Island Link. Capacity assistance from industrial customers will provide increased
13 operational flexibility and security during this period for the system.

14

15 Further requirements for capacity assistance renewals with other industrial customers for
16 2018 and beyond will be further evaluated after the first phase of integration is complete
17 and in advance of winter 2018-2019.

1 **5.0 Conclusion**

2 This current application is for approval of the proposed Revised Capacity Assistance
3 Agreement to provide 90 MW of capacity assistance with Corner Brook Pulp and Paper.

4

5 This agreement combines two existing agreements into one single agreement and provides
6 the following benefits to Hydro:

- 7 • Comparable fixed payment rate;
- 8 • Faster response time;
- 9 • Increased operational flexibility; and
- 10 • Increased security for long term planning.

11

12 Hydro believes that the proposed revised capacity assistance agreement will provide
13 increased operational flexibility to Hydro and will increase Hydro's ability to maintain
14 system integrity.

THIS CAPACITY ASSISTANCE AGREEMENT made in the Province of Newfoundland as of the 1st day of December 2014.

BETWEEN: **NEWFOUNDLAND AND LABRADOR HYDRO** a corporation and agent of the Crown constituted by statute, renamed and continued by the *Hydro Corporation Act, 2007* Chapter H-17 of the 2007 Statutes of Newfoundland and Labrador and having its head office at St. John's, in the Province of Newfoundland and (hereinafter called "Hydro"), of the first part;

AND **CORNER BROOK PULP AND PAPER LIMITED** a company organized under the laws of Newfoundland and Labrador (hereinafter called "the Customer"), of the second part.

WHEREAS Hydro and the Customer are parties to an agreement whereby Hydro sells Electrical Power and Energy to the Customer which agreement was most recently approved by the Board of Commissioners of Public Utilities for the Province of Newfoundland ("the Board") on February 8, 2012 in Order No. P.U. 4(2012) (herein after called "Service Agreement");

AND WHEREAS the parties acknowledge that this Agreement shall not be binding unless and until it is approved by the Board;

AND WHEREAS the Customer has hydroelectric generating capability which enables it to provide electrical capacity to Hydro;

THEREFORE THIS AGREEMENT WITNESSETH that the parties agree as follows:

ARTICLE 1
INTERPRETATION

In this Agreement, unless the context otherwise requires,

- 1.01 (a) "Capacity Assistance" means a reduction of 20, 40 or 60 MW in the Mill Load pursuant to a request of Hydro, following (i) the Customer producing power at its maximum available 60 Hz hydraulic generating capacity upon Hydro's request, and (ii) upon Hydro's request, a cessation of any and all Interruptible Demand by the Customer.



(b) "Capacity Assistance Request" means a request by Hydro from its Energy Control Center to the Deer Lake Power control room to provide Capacity Assistance in any of the amounts set out in Article 2.

(c) "Capacity Assistance Period" is a period of not less than three (3) hours and not more than six (6) hours during which Capacity Assistance is provided in accordance with a Capacity Assistance Request.

(d) "Capacity Fee" means a fee payable by Hydro to Customer as set forth herein of \$1,680,000 per Winter.

(e) "Ice Condition Event" means any event of frazil ice or other ice conditions at or upstream of the Customer's Deer Lake generating station penstocks, resulting in whole or in part in the Customer being unable to meet a Capacity Request from Hydro. The Customer shall not be required to reduce its Mill Load below the Mill Essential Services Load but shall deliver Capacity Assistance for the excess.

(f) "Interruptible Demand" means the same as it does under the Service Agreement.

(g) "Mill Essential Services Load" means that amount of Mill Load required to operate the Customer's main power boiler and essential heating and lighting but in any event shall not exceed 10 MW.

(h) "Mill Load" means the Customer's 60 Hz electrical power requirements as taken at its 66 kV supply buses, or at such other points agreed to in writing by the parties.

(i) "Secondary Energy" means the same as it does under the Service Agreement.

(j) "Winter" means the period from December 1 to March 31 inclusive.

ARTICLE 2
CAPACITY ASSISTANCE

2.01 Hydro may make Capacity Assistance Requests to the Customer in amounts of 20 MW, 40 MW or 60 MW no more than twice in a calendar day, no more than twenty times in a Winter, each of a duration of not less than 3 hours, and such that the total duration of such Capacity Assistance Periods does not exceed 100 hours in a Winter.

2.02 A Capacity Assistance Request shall be made to the Customer upon not less than



20 minutes notice prior to the time that the Capacity Assistance Period is scheduled to commence. Any request to cease a Capacity Assistance Period, or to change the amount of Mill Load reduced during a Capacity Assistance Period, shall be made upon 20 minutes notice but a change in the level of Capacity Assistance provided in a Capacity Assistance Period does not i) constitute a new Capacity Assistance Request; or ii) disentitle the Customer to payment under section 3.02 hereof for the period in the initial Capacity Assistance Request.

2.03 Any Capacity Assistance Request made by Hydro may be cancelled by Hydro if notice to cancel that Capacity Assistance is given by Hydro to the Customer not less than 20 minutes before the time that the Capacity Assistance Period was scheduled to commence.

2.04 Hydro shall not request that a Capacity Assistance Period start until all but one of Hydro's gas turbine generators which are operable have been started and loaded. Hydro shall have the sole and absolute discretion to decide the loading of these gas turbine generators and to choose which of these gas turbine generators it holds in reserve for this purpose. In order to ensure the efficient use of its peaking resources, at any time after the commencement of the first Capacity Assistance Period of that day, Hydro may cease generating power from any or all of these gas turbine generators without affecting its rights to continue a Capacity Assistance Period or to change an amount of Capacity Assistance provided under a Capacity Assistance Request.

ARTICLE 3
PAYMENT

3.01 Subject to Article 4, Hydro shall pay a Capacity Fee whether or not Hydro makes a Capacity Assistance Request, fifty percent (50%) of which shall be billed at the end of January and the balance at the end of March in each Winter that this agreement is in effect.

3.02 In addition to the fees payable under Clause 3.01, Hydro shall pay the Customer a variable rate of 20 cents per kW per hour for the maximum Capacity Assistance requested and provided during each Capacity Assistance Period.

3.03 The amounts paid for Capacity Assistance shall be the only amounts payable and no amounts shall be payable under the Secondary Energy arrangements that exist under separate agreements with respect to Capacity Assistance provided during a Capacity Assistance Period under this Agreement but otherwise the Secondary Energy arrangements will apply.

3.04 The Customer shall render its accounts two times each Winter, once at the end of January and once at the end of March, and Hydro will, within twenty (20) days after the date of receiving such account, make payment in lawful money of Canada at the



appointed office of the Customer or by means of direct deposit into a Canadian bank account of the Customer. Any amounts in arrears or overdue to the Customer after expiration of such twenty (20) days shall bear interest, before and after judgment, at the prime rate of the Bank of Montreal plus 2% annually until such balance is paid. The prime rate of the Bank of Montreal is the annual rate so established and announced by such bank at its head office in Canada as an annual rate of interest for demand loans payable in Canadian Dollars in Canada.

ARTICLE 4

CAPACITY FEE ADJUSTMENTS AND FORCE MAJEURE

4.01 Subject to Clauses 4.02 and 4.03, in the event that Hydro makes a Capacity Assistance Request and the Customer fails to provide the Capacity Assistance, the Capacity Fee, after adjustments, if any, pursuant to Clause 4.02, will be reduced by 50% as a result of the first failure to provide Capacity Assistance as requested during a Winter. For each additional failure to provide Capacity Assistance, the Capacity Fee will be reduced by a further 25%. If the Customer fails to provide Capacity Assistance three times during a Winter, the Customer forfeits 100% of the Capacity Fee.

Notwithstanding the previous paragraph, no Capacity Fee will be paid if the number of failures to provide Capacity Assistance not contemplated by Clauses 4.02 and 4.03 equals the positive number of requests for Capacity Assistance.

4.02 If Hydro has given a Capacity Assistance Request at a time when the Customer is experiencing an Ice Condition Event, then there will be no reduction made to the Capacity Fee pursuant to clause 4.01, however, at the end of the Winter, an adjustment shall be made to the Capacity Fee paid or payable for that Winter so that, in result, the total amount of the Capacity Fees shall be reduced by \$84,000 (1/20 of \$1,680,000) for each Ice Condition Event. The Customer shall use all reasonable efforts to remedy the Ice Condition Event as quickly as possible and shall resume compliance with its obligations hereunder as soon as reasonably possible upon termination of the Ice Condition Event.

4.03 A party shall not be liable for failure to comply with its obligations hereunder due to an act of God or event of force majeure. "Force Majeure" herein means any event that is unforeseeable, and beyond a party's control, which causes a delay in or interrupts or prevents the total or partial performance by that party of any or all of its obligations under this Agreement including, without limiting the generality of the foregoing, war, riot, acts of vandalism, rebellion, epidemic, lightning, earthquake, flood, fire, explosion, government decrees or prohibitions or restrictions by any authority of competent jurisdiction affecting the obligations of the party suffering Force Majeure.

The party affected by Force Majeure shall promptly give written notice to the other



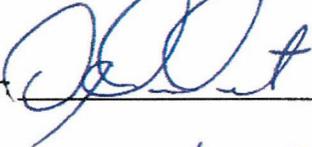
party of the event of Force Majeure, stating therein the nature of the event, the obligations affected, the reasons and expected duration of any suspension of performance and the anticipated date of termination of the event of Force Majeure. The affected party shall use all reasonable efforts to remedy the event of Force Majeure as quickly as possible, including not exceeding Mill Essential Services Load, and shall resume compliance with its obligations hereunder as soon as reasonably possible upon termination of the event of Force Majeure.

ARTICLE 5
TERM OF AGREEMENT

5.01 This agreement commences as of December 1, 2014 and expires on March 31, 2018 provided however that either party may terminate this agreement by providing advance written notice to the other party to that effect no earlier than March 31 and no later than June 30, which termination shall be effective not earlier than for the following Winter Period.

IN WITNESS WHEREOF, each Party has executed this Agreement by its duly authorized representatives.

Corner Brook Pulp and Paper Limited

Per:  _____

Title: SR VICE PRESIDENT

Newfoundland and Labrador Hydro

Per:  _____

Title: VP. SYSTEM OPERATION and Planning

THIS SUPPLEMENTAL CAPACITY ASSISTANCE AGREEMENT is made in the Province of Newfoundland as of the 14th day of December 2014.

BETWEEN:

NEWFOUNDLAND AND LABRADOR HYDRO a corporation and agent of the Crown constituted by statute, renamed and continued by the *Hydro Corporation Act*, 2007 Chapter H-17 of the 2007 Statutes of Newfoundland and Labrador and having its head office at St. John's, in the Province of Newfoundland and (hereinafter called "Hydro"), of the first part;

AND

CORNER BROOK PULP AND PAPER LIMITED a company organized under the laws of Newfoundland and Labrador (hereinafter called "the Customer"), of the second part.

WHEREAS Hydro and the Customer are parties to an agreement whereby Hydro sells Electrical Power and Energy to the Customer which agreement was most recently approved by the Board of Commissioners of Public Utilities for the Province of Newfoundland on February 8, 2012 in Order No. P.U. 4(2012) (herein after called "Service Agreement");

AND WHEREAS the Customer has hydroelectric generating capability which enables it to provide electrical capacity to Hydro;

AND WHEREAS Hydro and the Customer are parties to an agreement whereby the Customer reduces its load pursuant to a request of Hydro such that it provides up to 60 MW of relief on the island transmission system which agreement was approved by the Board of Commissioners of Public Utilities for the Province of Newfoundland on November 28, 2014 in Order No. P.U. 49 (2014) (herein after called "Capacity Assistance Agreement");

THEREFORE THIS AGREEMENT WITNESSETH that the parties agree as follows:

ARTICLE 1
INTERPRETATION

In this Agreement, unless the context otherwise requires,

1.01 (a) "Mill Essential Services Load" means that amount of Mill Load required to operate the Customer's main power boiler and essential heating and lighting but in any event shall not exceed 10 MW.

(b) "Mill Load" means the Customer's 60 Hz electrical power requirements as

taken at its 66 kV supply buses, or at such other points agreed to in writing by the parties.

(c) "Secondary Energy" means the same as it does under the Service Agreement.

(d) "Supplemental Capacity Assistance" means a provision of capacity in excess of that which is required under the Capacity Assistance Agreement but which does not require the Customer to reduce Mill Load below Mill Essential Services Load (the maximum Supplemental Capacity Assistance is estimated to be approximately 30 MW).

(e) "Supplemental Capacity Assistance Period" is a period determined by Hydro at the time of the request of not less than three (3) hours and not more than six (6) hours during which Supplemental Capacity Assistance is provided in accordance with a Supplemental Capacity Assistance Request.

(f) "Supplemental Capacity Assistance Request" means a request by Hydro from its Energy Control Center to the Deer Lake Power control room to provide Supplemental Capacity Assistance in an amount to be determined by Hydro.

(g) "Winter" means the period from December 1 to March 31 inclusive.

ARTICLE 2 SUPPLEMENTAL CAPACITY ASSISTANCE

2.01 Hydro may make Supplemental Capacity Assistance Requests only following a Capacity Assistance Request for 60 MW under the existing Capacity Assistance Agreement approved in Board Order No. P.U. 49(2014), no more than twice in a calendar day, no more than twenty times in a Winter, each of a duration of not less than 3 hours and not more than six (6) hours, and such that the total duration of such Supplemental Capacity Assistance Periods does not exceed 100 hours in a Winter.

2.02 A Supplemental Capacity Assistance Request shall be made to the Customer upon not less than 15 minutes notice prior to the time that the Supplemental Capacity Assistance Period is scheduled to commence. Any request to cease a Supplemental Capacity Assistance Period, or to change the Supplemental Capacity Assistance amount, shall be made upon 15 minutes notice but a change in the level of Supplemental Capacity Assistance provided in a Supplemental Capacity Assistance Period does not i) constitute a new Supplemental Capacity Assistance Request; or ii) disentitle the Customer to payment under section 3.01 hereof for the period in the initial Supplemental Capacity Assistance Request.

2.03 Any Supplemental Capacity Assistance Request made by Hydro may be cancelled by Hydro if notice to cancel that Supplemental Capacity Assistance is given by Hydro to the Customer not less than 15 minutes before the time that the Supplemental Capacity Assistance Period was scheduled to commence.

2.04 The Customer's acceptance or rejection of a Supplemental Capacity Request is at the Customer's discretion. However, it is recognized that the Customer will do everything reasonable to deliver the Supplemental Capacity Assistance, without impacting the Mill Essential Service Load. There will be no penalties in the event the Customer can not meet a Supplemental Capacity Request.

ARTICLE 3 PAYMENT

3.01 Hydro shall pay the Customer a variable rate of 55 cents per kW per hour for the first 10 MW of Supplemental Capacity Assistance provided and 65 cents per kW per hour for Supplemental Capacity Assistance provided in excess of the first 10 MW block requested and provided during each Supplemental Capacity Assistance Period. The duration of the Supplemental Capacity Assistance Period in which the Supplemental Capacity Assistance Request is made will commence with the time of the original Capacity Assistance Period (as defined in the Capacity Assistance Agreement) and end at the termination of that same Capacity Assistance Period and the payment for that period will be based on the maximum Supplemental Capacity Assistance requested, supplied and sustained in that period. The duration of which will not be less than three (3) hours and not more than six (6) hours.

3.02 The amounts paid for Supplemental Capacity Assistance shall be the only amounts payable and no amounts shall be payable under the Secondary Energy and/or Capacity Assistance arrangements that exist under separate agreements with respect to Supplemental Capacity Assistance provided during a Supplemental Capacity Assistance Period under this Agreement but otherwise the Secondary Energy and/or Capacity Assistance arrangements will apply. The Supplemental Capacity Assistance, Secondary Energy and, Capacity Assistance agreements are separate agreements and amounts payable under any one agreement will not impact the amounts payable under the other two agreements.

3.03 The Customer shall render its accounts on a monthly basis at the end of each month and Hydro will, within twenty (20) days after the date of receiving such account, make payment in lawful money of Canada at the appointed office of the Customer or by means of direct deposit into a Canadian bank account of the Customer. Any amounts in arrears or overdue to the Customer after expiration of such twenty (20) days shall bear interest, before and after judgment, at the prime rate of the Bank of Montreal plus 2% annually until such balance is paid. The prime rate of the Bank of Montreal is the annual

rate so established and announced by such bank at its head office in Canada as an annual rate of interest for demand loans payable in Canadian Dollars in Canada.

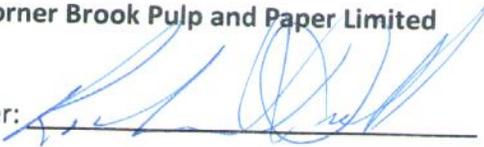
ARTICLE 4
TERM OF AGREEMENT

4.01 This agreement commences as of December 14, 2014 and expires on March 31, 2018 provided however that either party may terminate this agreement by providing advance written notice to the other party to that effect no earlier than March 31 and no later than June 30, which termination shall be effective not earlier than for the following Winter Period.

IN WITNESS WHEREOF, each Party has executed this Agreement by its duly authorized representatives.

Corner Brook Pulp and Paper Limited

Per:



Title: VP / GM Corner Brook Pulp & Paper Ltd

Newfoundland and Labrador Hydro

Per:



Title: VP System Operations and Planning

THIS CAPACITY ASSISTANCE AGREEMENT is made in the Province of Newfoundland as of the 1st day of December 2014.

BETWEEN: **NEWFOUNDLAND AND LABRADOR HYDRO** a corporation and agent of the Crown constituted by statute, renamed and continued by the *Hydro Corporation Act*, 2007 Chapter H-17 of the 2007 Statutes of Newfoundland and Labrador and having its head office at St. John's, in the Province of Newfoundland and (hereinafter called "Hydro"), of the first part;

AND **VALE NEWFOUNDLAND & LABRADOR LIMITED** a company organized under the laws of Newfoundland and Labrador (hereinafter called "the Customer"), of the second part.

WHEREAS Hydro and the Customer are parties to an agreement whereby Hydro sells Electrical Power and Energy to the Customer which agreement is approved by, and which sales are at rates set by, the Board of Commissioners of Public Utilities for the Province of Newfoundland ("the Board") on March 9, 2012 in Order No. P.U. 6(2012) (herein after called "Service Agreement");

AND WHEREAS the Customer has thermal generating capability which enables it to provide electrical capacity to Hydro;

THEREFORE THIS AGREEMENT WITNESSETH that the parties agree as follows:

ARTICLE 1
INTERPRETATION

Anywhere in this Agreement, unless the context otherwise requires,

- 1.01 (a) "Capacity Assistance" means a net relief of 15.8 MW, or such lesser amount that is verified in accordance with clause 2.05, on Hydro's system.
- (b) "Capacity Assistance Delivered" is that amount of Capacity Assistance that has been both requested by Hydro and provided by the Customer from the Customer's generation.
- (c) "Capacity Assistance Request" means a request by Hydro from its Energy Control Center to the Customer to provide Capacity Assistance as set out in Article 2.
- (d) "Capacity Assistance Period" is a period of not more than six hours during which Capacity Assistance is provided in accordance with a Capacity Assistance Request.

- (e) "Capacity Fee" means \$28 per kW per Winter for 15.8 MW, or such lesser amount that is verified in accordance with clause 2.05.
- (f) "Winter" means the period from December 1 to March 31 inclusive.

ARTICLE 2
CAPACITY ASSISTANCE

2.01 Hydro may make Capacity Assistance Requests no more than two (2) times in a calendar day, no more than twenty (20) times in a Winter, each of a duration of not more than six (6) hours, and such that the total duration of such Capacity Assistance Periods does not exceed 100 hours in a Winter.

2.02 A Capacity Assistance Request shall be made upon not less than twenty (20) minutes notice prior to the time that the Capacity Assistance Period is scheduled to commence. Any request to cease a Capacity Assistance Period shall be made upon not less than twenty (20) minutes notice.

2.03 Any Capacity Assistance Request made by Hydro may be cancelled by Hydro if notice to cancel that Capacity Assistance is given by Hydro to the Customer not less than twenty (20) minutes before the time that the Capacity Assistance Period was scheduled to commence.

2.04 Hydro shall not request that a Capacity Assistance Period start until all but one of Hydro's gas turbine generators which are operable have been started and loaded. Hydro shall have the sole and absolute discretion to decide the loading of these gas turbine generators and to choose which of these gas turbine generators it holds in reserve for this purpose. In order to ensure the efficient use of its peaking resources, at any time after the commencement of the first Capacity Assistance Period of that day, Hydro may cease generating power from any or all of these gas turbine generators without affecting its rights to continue a Capacity Assistance Period.

2.05 The Customer must demonstrate the capability to operate its generation. The amount that the Customer can generate will be verified in a test by operating the generation at that level for a continuous period of one hour and as measured by the generation demand metering. The sustained generation level so verified, up to a maximum of 15.8 MW, will become the basis to calculate the Capacity Fee payments to be made under Clause 3.06 for the coming Winter. The test will be carried out at a mutually agreed time and for the second and third years of the Agreement, shall be carried out between November 15 and November 30 of each year of the second and third years of the term. The Customer will be provided an opportunity to repeat the test at another mutually agreed time during the same November 15 to November 30 period.

ARTICLE 3
PAYMENT AND METERING

3.01 Subject to Article 4, Hydro shall pay a Capacity Fee whether or not Hydro makes a Capacity Assistance Request.

3.02 In addition to the fees payable under Clause 3.01, Hydro shall, subject to audit and verification, pay the Customer for the fuel cost incurred by the Customer for the provision of Capacity Assistance during each Capacity Assistance Period. The energy and capacity provided by the Customer's generation during a Capacity Assistance Period which supplies the Customer's facility load requirements will be billed in accordance with the Service Agreement.

3.03 Fuel cost will be determined on a monthly basis by multiplying the total value of fuel consumed by the Customer's generators during the month by the ratio of kilowatt hours of Capacity Assistance Delivered to the total kilowatt hours that the Customer's generators produced during the month. Value of fuel consumed will be determined by multiplying quantity of fuel consumed by the Customer's average cost of fuel during the month.

3.04 The Customer shall provide to Hydro, no later than the first business day of the following month and in electronic format, time-stamped 15-minute interval demand metering data for the aggregate generation provided as per this agreement. The Customer shall also provide to Hydro, no later than the first business day of the following month, all necessary documentation to support fuel costs incurred by the Customer during the month.

3.05 The amounts paid to the Customer for Capacity Assistance provided to Hydro during a Capacity Assistance Period under this Agreement shall be the only amounts payable for such Capacity Assistance.

3.06 The Customer shall render its accounts two (2) times each Winter, once at the end of January and once at the end of March, and Hydro will, within twenty (20) days after the date of receiving such account, make payment in lawful money of Canada at the appointed office of the Customer or by means of direct deposit into a Canadian bank account of the Customer. Any amounts in arrears or overdue to the Customer after expiration of such twenty (20) days shall bear interest, before and after judgment, at the prime rate of the Bank of Montreal plus 2% annually until such balance is paid. The prime rate of the Bank of Montreal is the annual rate so established and announced by such bank at its head office in Canada as an annual rate of interest for demand loans payable in Canadian Dollars in Canada.

3.07 Subject to Article 4, the first Capacity Fee payment for the Winter of 2014-2015 shall be reduced pro rata to reflect the fact that Capacity Assistance was not available until December 16, 2014.

ARTICLE 4
CAPACITY FEE ADJUSTMENTS

4.01 In the event that Hydro makes a Capacity Assistance Request and the Customer fails to provide the Capacity Assistance, the Capacity Fee will be reduced by 50% as a result of the first failure to provide Capacity Assistance as requested during a Winter. For each additional failure to provide Capacity Assistance, the Capacity Fee will be reduced by a further 25%. If the Customer fails to provide Capacity Assistance three times during a Winter, the Customer forfeits 100% of the Capacity Fee.

Notwithstanding the previous paragraph, no Capacity Fee will be provided if the number of failures to provide Capacity Assistance equals the positive number of requests for Capacity Assistance.

4.02 The reduction in the Capacity Fee as provided for in section 4.01 is Hydro's sole remedy for any breach of the Agreement by the Customer, including a failure by the Customer to provide Capacity Assistance following a request from Hydro.

4.03 A party shall not be liable for failure to comply with its obligations hereunder due to an act of God or force majeure. "Force Majeure" herein means any event that is unforeseeable, and beyond a party's control, which causes a delay in or interrupts or prevents the total or partial performance by that party of any or all of its obligations under this Agreement including, without limiting the generality of the foregoing, war, riot, acts of vandalism, rebellion, epidemic, lightning, earthquake, flood, fire, explosion, government decrees or prohibitions or restrictions by any authority of competent jurisdiction affecting the obligations of the party suffering Force Majeure.

The party affected by Force Majeure shall promptly give written notice to the other party of the event for Force Majeure, stating therein the nature of the event, the obligations affected, the reasons and expected duration of any suspension of performance and the anticipated date of termination of the Force Majeure. The affected party shall use all reasonable efforts to remedy the event of Force Majeure as quickly as possible and shall resume compliance with its obligations hereunder as soon as reasonably possible upon termination of the event of Force Majeure.

ARTICLE 5 **TERM OF AGREEMENT**

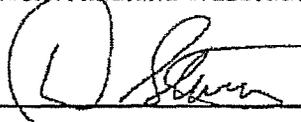
5.01 This agreement commences as of December 1, 2014 and expires on March 31, 2018 provided however that either party may terminate this agreement by providing advance written notice to the other party to that effect no earlier than March 31 and no later than June 30, which termination shall be effective not earlier than for the following Winter.

IN WITNESS WHEREOF, each Party has executed this Agreement by its duly authorized representatives.

IN WITNESS WHEREOF, each Party has executed this Agreement by its duly authorized representatives.

Vale Newfoundland & Labrador Limited

Newfoundland and Labrador Hydro

Per: 

Per: 

Title: Director, Long Harbor Operations

Title: VP SYSTEM OPERATIONS and PLANNING

THIS LOAD CURTAILMENT AGREEMENT is made in the Province of Newfoundland as of the 1st day of January 2016.

BETWEEN: **NEWFOUNDLAND AND LABRADOR HYDRO** a corporation and agent of the Crown constituted by statute, renamed and continued by the *Hydro Corporation Act, 2007* Chapter H-17 of the 2007 Statutes of Newfoundland and Labrador and having its head office at St. John's, in the Province of Newfoundland and (hereinafter called "Hydro"), of the first part;

AND **VALE NEWFOUNDLAND & LABRADOR LIMITED** a company organized under the laws of Newfoundland and Labrador (hereinafter called "the Customer"), of the second part.

WHEREAS Hydro and the Customer are parties to an agreement whereby Hydro sells Electrical Power and Energy to the Customer which agreement is approved by, and which sales are at rates set by, the Board of Commissioners of Public Utilities for the Province of Newfoundland ("the Board") on March 9, 2012 in Order No. P.U. 6(2012) (hereinafter called "Service Agreement");

AND WHEREAS the parties acknowledge that this Agreement shall not be binding unless and until it is approved by the Board;

AND WHEREAS the Customer has electrical load which may be curtailed to provide electrical capacity to Hydro;

THEREFORE THIS AGREEMENT WITNESSETH that the parties agree as follows:

ARTICLE 1
INTERPRETATION

Anywhere in this Agreement, unless the context otherwise requires,

- 1.01 (a) "Amount of Power on Order" means the same as it does in the Service Agreement.
- (b) "Demand" means the same as it does in the Service Agreement.
- (c) "Demand Curtailment Fee" means \$7 per kW per Winter month for 6,000 kW or such lesser amount that is verified in accordance with clause 2.05.
- (d) "Demand Curtailment Payment" means the amount determined pursuant to Cause 3.02.



- (e) "Energy Curtailed" means the amount of Load Curtailment Delivered multiplied by the duration of the curtailment, expressed in kilowatt hours (kWh).
- (f) "Energy Curtailed Payment" means the amount payable calculated in accordance with Clause 3.03.
- (g) "Energy Curtailed Rate" means \$0.20 per kilowatt hour (kWh) of energy curtailed.
- (h) "Load Curtailment" means a net reduction in Demand delivered by the Customer to Hydro of 6,000 kW, or such lesser amount that is verified in accordance with clause 2.05.
- (i) "Load Curtailment Delivered" is that amount of Load Curtailment that has been both requested by Hydro and provided by the Customer.
- (j) "Load Curtailment Period" is a period of not less than three hours and not more than six hours during which Load Curtailment is provided in accordance with a Load Curtailment Request.
- (k) "Load Curtailment Request" means a request by Hydro from its Energy Control Center to the Customer to provide Load Curtailment as set out in Article 2.
- (l) "Maximum Demand" means the same as it does in the Service Agreement.
- (m) "Month" means the same as it does in the Service Agreement.
- (n) "Winter" means the period from January 1 to March 31 inclusive for the winter of 2016-17 and December 1 to March 31 inclusive for winter 2017-18.

ARTICLE 2
LOAD CURTAILMENT

2.01 Hydro may make Load Curtailment Requests no more than twice in a calendar day, no more than ten (10) times in a Winter, such that the total duration of such Load Curtailment Periods does not exceed fifty (50) hours in a Winter.

2.02 A Load Curtailment Request shall be made upon not less than sixty (60) minutes notice prior to the time that the Load Curtailment Period is scheduled to commence. Any request to cease a Load Curtailment Period shall be made upon not less than thirty (30) minutes notice.

2.03 Any Load Curtailment Request made by Hydro may be cancelled by Hydro if notice to

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cancel that Load Curtailment is given by Hydro to the Customer not less than thirty (30) minutes before the time that the Load Curtailment Period was scheduled to commence.

2.04 Hydro shall not request that a Load Curtailment Period start until all but one of Hydro's gas turbine generators on the Avalon Peninsula which are operable have been started and loaded. Hydro shall have the sole and absolute discretion to decide the loading of these gas turbine generators and to choose which of these gas turbine generators it holds in reserve for this purpose. In order to ensure the efficient use of its peaking resources, at any time after the commencement of the first Load Curtailment Period of that day, Hydro may cease generating power from any or all of these gas turbine generators without affecting its rights to continue a Load Curtailment Period.

2.05 The Customer must demonstrate the capability to curtail its Demand by 6,000 kW. This will be verified in a test by curtailing 6,000 kW of Demand from the Amount of Power on Order for a continuous period of one hour. The test will be carried out at a mutually agreed time between December 01 and December 31 for winter 2016-17 and November 15 and November 30 for winter 2017-18. If the level of Demand curtailment is not sustained throughout the hour, the Customer will be provided an opportunity to repeat the test at another mutually agreed time during the same period. If the Demand curtailment level is not sustained in the second test, the Load Curtailment and Demand Curtailment Fee will be reduced to reflect the amount of Demand reduction which the Customer has demonstrated it can sustain. No payment shall be made under this agreement for Load Curtailment tests carried out under this clause 2.05.

ARTICLE 3
PAYMENT AND METERING

3.01 Subject to Article 4, Hydro shall pay the Customer a Demand Curtailment Payment whether or not Hydro makes a Load Curtailment Request.

3.02

- i. For the 2016-17 winter only, the Demand Curtailment Payment will be determined on a monthly basis, as follows:

Demand Curtailment Payment = Demand Curtailment Fee x (Amount of Power on Order – 6,000 kW)

- ii. For the 2017-18 winter only, the Demand Curtailment Payment will be determined on an annual basis, as follows:

Demand Curtailment Payment = Demand Curtailment Fee x (Amount of Power on Order – 6,000 kW)

3.03 In addition to the Demand Curtailment Payment, Hydro shall pay the Customer an

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Energy Curtailed Payment at the Energy Curtailed Rate for each Load Curtailment Period, calculated in accordance with the following formula:

$$E_n = (ID - D_n) \times H_n \text{ (where ID is greater than } D_n)$$

Where:

- E_n is the amount of Energy Curtailed in kWh in Load Curtailment Period_n
- ID is the initial Demand determined as the Maximum Demand in kW established in the hour immediately preceding the Load Curtailment Request, up to a maximum of the Amount of Power on Order
- D_n is the Maximum Demand in kW established during Load Curtailment Period_n
- H_n is the duration of Load Curtailment Period_n measured in whole hours
- n is the Load Curtailment Period

3.04 The amounts paid to the Customer for Load Curtailment provided to Hydro during a Load Curtailment Period under this Agreement shall be the only amounts payable for such Load Curtailment.

3.05 The Customer shall render its accounts twice each Winter, once at the end of January and once at the end of March, and Hydro will, within twenty (20) days after the date of receiving such account, make payment in lawful money of Canada at the appointed office of the Customer or by means of direct deposit into a Canadian bank account of the Customer. Any amounts in arrears or overdue to the Customer after expiration of such twenty (20) days shall bear interest, before and after judgment, at the prime rate of the Bank of Montreal plus 2% annually until such balance is paid. The prime rate of the Bank of Montreal is the annual rate so established and announced by such bank at its head office in Canada as an annual rate of interest for demand loans payable in Canadian Dollars in Canada.

3.06 All amounts and values used for the calculation of any payments to be made under this Agreement shall be subject to audit and verification by Hydro.

ARTICLE 4
DEMAND CURTAILMENT PAYMENT ADJUSTMENTS

4.01 In the event that Hydro makes a Load Curtailment Request and the Customer fails to provide the Load Curtailment prior to commencement of the Load Curtailment Period, the Demand Curtailment Payment shall be calculated as follows:



- a. For the 2016-2017 Winter the Demand Curtailment Payment will be reduced by 50% as a result of the first failure to provide Load Curtailment as requested during a Month. For each additional failure to comply with a Load Curtailment Request in the same month, the Demand Curtailment Payment for the month will be reduced by a further 25%. If the Customer fails to comply with a Load Curtailment request three times during a Month, the Customer forfeits 100% of the Demand Curtailment Payment for that month.
- b. For the 2017-2018 Winter the Demand Curtailment Payment will be reduced by 50% as a result of the first failure to provide Capacity Assistance as requested during a Winter. For each additional failure to provide Capacity Assistance, the Demand Curtailment Payment will be reduced by a further 25%. If the Customer fails to provide Capacity Assistance three times during a Winter, the Customer forfeits 100% of the Demand Curtailment Payment.

Notwithstanding the previous paragraph, no Demand Curtailment Payment will be provided if the number of failures to comply with a Load Curtailment Request equals the number of Load Curtailment Requests.

4.02 The reduction in the Load Curtailment Fee as provided for in section 4.01 is Hydro's sole remedy for any breach of the Agreement by the Customer, including a failure by the Customer to provide Load Curtailment following a request from Hydro.

4.03 A party shall not be liable for failure to comply with its obligations hereunder due to an act of God or force majeure. "Force Majeure" herein means any event that is unforeseeable, and beyond a party's control, which causes a delay in or interrupts or prevents the total or partial performance by that party of any or all of its obligations under this Agreement including, without limiting the generality of the foregoing, war, riot, acts of vandalism, rebellion, epidemic, lightning, earthquake, flood, fire, explosion, government decrees or prohibitions or restrictions by any authority of competent jurisdiction affecting the obligations of the party suffering Force Majeure.

The party affected by Force Majeure shall promptly give written notice to the other party of the event for Force Majeure, stating therein the nature of the event, the obligations affected, the reasons and expected duration of any suspension of performance and the anticipated date of termination of the Force Majeure. The affected party shall use all reasonable efforts to remedy the event of Force Majeure as quickly as possible and shall resume compliance with its obligations hereunder as soon as reasonably possible upon termination of the event of Force Majeure.

ARTICLE 5
TERM OF AGREEMENT

5.01 This Agreement commences as of the date hereof and expires on March 31, 2018; provided however, that either party may terminate this Agreement by providing advance

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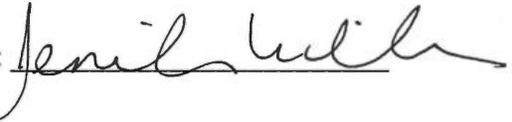
written notice to the other party to that effect no earlier than March 31 and no later than June 30 in any given year, which termination shall be effective for the following Winter.

IN WITNESS WHEREOF, each Party has executed this Agreement by its duly authorized representatives.

Vale Newfoundland & Labrador Limited

Newfoundland and Labrador Hydro

Per: 

Per: 

Title: VP Operations

Title: VP, Production



THIS LOAD CURTAILMENT AGREEMENT is made in the Province of Newfoundland as of the 1st day of December 2016.

BETWEEN: **NEWFOUNDLAND AND LABRADOR HYDRO** a corporation and agent of the Crown constituted by statute, renamed and continued by the *Hydro Corporation Act, 2007* Chapter H-17 of the 2007 Statutes of Newfoundland and Labrador and having its head office at St. John's, in the Province of Newfoundland and (hereinafter called "Hydro"), of the first part;

AND **PRAXAIR CANADA INC.** a corporation incorporated under the laws of Nova Scotia, Canada, having its principal place of business at 1 City Centre Drive, Suite 1200, Mississauga, Ontario, Canada L5B 1M2 (hereinafter called "the Customer"), of the second part.

WHEREAS Hydro and the Customer are parties to an agreement whereby Hydro sells Electrical Power and Energy to the Customer which agreement is approved by, and which sales are at rates set by, the Board of Commissioners of Public Utilities for the Province of Newfoundland ("the Board") on April 3, 2013 in Order No. P.U. 9(2013) (hereinafter called "Service Agreement");

AND WHEREAS the parties acknowledge that this Agreement shall not be binding unless and until it is approved by the Board;

AND WHEREAS the Customer has electrical load which may be curtailed to provide electrical capacity to Hydro;

THEREFORE THIS AGREEMENT WITNESSETH that the parties agree as follows:

ARTICLE 1
INTERPRETATION

Anywhere in this Agreement, unless the context otherwise requires,

- 1.01 (a) "Amount of Power on Order" means the same as it does in the Service Agreement.
- (b) "Demand" means the same as it does in the Service Agreement.
- (c) "Demand Curtailment Fee" means \$7 per kW per Winter month for 5,000 kW or such lesser amount that is verified in accordance with clause 2.07.
- (d) "Demand Curtailment Payment" means the amount determined pursuant to

Cause 3.02.

- (e) "Energy Curtailed" means the amount of Load Curtailment Delivered multiplied by the duration of the curtailment, expressed in kilowatthours (kWh).
- (f) "Energy Curtailed Payment" means the amount payable calculated in accordance with Clause 3.03.
- (g) "Energy Curtailed Rate" means \$0.20 per kilowatt hour (kWh) of energy curtailed.
- (h) "Load Curtailment" means a net reduction in Demand delivered by the Customer to Hydro of 5,000 kW, or such lesser amount that is verified in accordance with clause 2.07.
- (i) "Load Curtailment Delivered" is that amount of Load Curtailment that has been both requested by Hydro and provided by the Customer.
- (j) "Load Curtailment Period" is a period of not less than three hours and not more than six hours during which Load Curtailment is provided in accordance with a Load Curtailment Request.
- (k) "Load Curtailment Request" means a request by Hydro from its Energy Control Center to the Customer to provide Load Curtailment as set out in Article 2.
- (l) "Maximum Demand" means the same as it does in the Service Agreement.
- (m) "Minimum Customer Demand" means 200 kilowatts (kW).
- (n) "Month" means the same as it does in the Service Agreement.
- (o) "Winter" means the period from December 1 to March 31 inclusive.

ARTICLE 2
LOAD CURTAILMENT

2.01 Hydro may make Load Curtailment Requests no more than twice in a twenty-four (24) hour period, no more than ten (10) times in a Winter, and such that the total duration of such Load Curtailment Periods does not exceed fifty (50) hours in a Winter.

2.02 A Load Curtailment Request shall be made upon not less than sixty (60) minutes notice prior to the time that the Load Curtailment Period is scheduled to commence. Any request to cease a Load Curtailment Period shall be made upon not less than thirty (30) minutes notice.



2.03 Any Load Curtailment Request made by Hydro may be cancelled by Hydro if notice to cancel that Load Curtailment is given by Hydro to the Customer not less than fifteen (15) minutes before the time that the Load Curtailment Period was scheduled to commence.

2.04 If Hydro makes more than one Load Curtailment Request in a twenty-four (24) hour period, notification of the second Load Curtailment Request must be provided to the Customer no less than sixty (60) minutes prior to the time that the first Load Curtailment Period of that twenty-four (24) hour period is scheduled to end. Any request to cease a second Load Curtailment Period in a twenty-four (24) hour period shall be made upon not less than fifteen (15) minutes notice prior to the time that the first Load Curtailment Period of that twenty-four (24) hour period is scheduled to end.

2.05 Any instance where two Load Curtailment Periods occur within a twenty-four (24) hour period, a twenty-four (24) hour period shall begin at the end of the second Load Curtailment Period during which no Load Curtailment Requests can be made.

2.06 Hydro shall not request that a Load Curtailment Period start until all but one of Hydro's gas turbine generators on the Avalon Peninsula which are operable have been started and loaded. Hydro shall have the sole and absolute discretion to decide the loading of these gas turbine generators and to choose which of these gas turbine generators it holds in reserve for this purpose. In order to ensure the efficient use of its peaking resources, at any time after the commencement of the first Load Curtailment Period of that day, Hydro may cease generating power from any or all of these gas turbine generators without affecting its rights to continue a Load Curtailment Period.

2.07 The Customer must demonstrate the capability to curtail its Demand by 5,000 kW. This will be verified in a test by curtailing 5,000 kW of Demand for a continuous period of one hour. The test will be carried out at a mutually agreed time between November 15 and November 30 each Winter. If the level of Demand curtailment is not sustained throughout the hour, the Customer will be provided an opportunity to repeat the test at another mutually agreed time during the same period. If the Demand curtailment level is not sustained in the second test, the Load Curtailment and Demand Curtailment Fee will be reduced to reflect the amount of Demand reduction which the Customer has demonstrated it can sustain. No payment shall be made under this agreement for Load Curtailment tests carried out under this clause 2.07.

ARTICLE 3
PAYMENT AND METERING

3.01 Subject to Article 4, Hydro shall pay the Customer a Demand Curtailment Payment whether or not Hydro makes a Load Curtailment Request.

3.02 For the 2016-2017 Winter only, if for any Month the Customer's Amount of Power on



Order to Hydro is less than 5,200 kW, then for that Month the Demand Curtailment Payment will be determined as follows:

Demand Curtailment Payment = Demand Curtailment Fee x (Amount of Power on Order – Minimum Customer Demand)

3.03 In addition to the Demand Curtailment Payment, Hydro shall pay the Customer an Energy Curtailed Payment at the Energy Curtailed Rate for each Load Curtailment Period, calculated in accordance with the following formula:

$$E_n = (ID - D_n) \times H_n \text{ (where ID is greater than } D_n\text{)}$$

Where:

E_n is the amount of Energy Curtailed in kWh in Load Curtailment Period_n

ID is the initial Demand determined as the Maximum Demand in kW established in the hour immediately preceding the initial Load Curtailment Request (within a 24 hour period), up to a maximum of the Amount of Power on Order

D_n is the Maximum Demand in kW established during Load Curtailment Period_n

H_n is the duration of Load Curtailment Period_n measured in whole hours

n is the Load Curtailment Period

3.05 The amounts paid to the Customer for Load Curtailment provided to Hydro during a Load Curtailment Period under this Agreement shall be the only amounts payable for such Load Curtailment.

3.06 The Customer shall render its accounts twice each Winter, once at the end of January and once at the end of March, and Hydro will, within twenty (20) days after the date of receiving such account, make payment in lawful money of Canada at the appointed office of the Customer or by means of direct deposit into a Canadian bank account of the Customer. Any amounts in arrears or overdue to the Customer after expiration of such twenty (20) days shall bear interest, before and after judgment, at the prime rate of the Bank of Montreal plus 2% annually until such balance is paid. The prime rate of the Bank of Montreal is the annual rate so established and announced by such bank at its head office in Canada as an annual rate of interest for demand loans payable in Canadian Dollars in Canada.

3.07 All amounts and values used for the calculation of any payments to be made under this Agreement shall be subject to audit and verification by Hydro.



ARTICLE 4
DEMAND CURTAILMENT PAYMENT ADJUSTMENTS

4.01 In the event that Hydro makes a Load Curtailment Request and the Customer fails to provide the Load Curtailment equal to or less than the Minimum Customer Demand prior to commencement of the Load Curtailment Period, the Demand Curtailment Payment shall be calculated as follows:

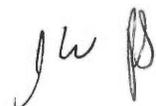
- a. For the 2016-2017 Winter the Demand Curtailment Payment will be reduced by 50% as a result of the first failure to provide Load Curtailment as requested during a Month. For each additional failure to comply with a Load Curtailment Request in the same month, the Demand Curtailment Payment for the month will be reduced by a further 25%. If the Customer fails to comply with a Load Curtailment request three times during a Month, the Customer forfeits 100% of the Demand Curtailment Payment for that month.
- b. For the 2017-2018 Winter the Demand Curtailment Payment will be reduced by 50% as a result of the first failure to provide Capacity Assistance as requested during a Winter. For each additional failure to provide Capacity Assistance, the Capacity Fee will be reduced by a further 25%. If the Customer fails to provide Capacity Assistance three times during a Winter, the Customer forfeits 100% of the Capacity Fee.

Notwithstanding the previous paragraph, no Demand Curtailment Payment will be provided if the number of failures to comply with a Load Curtailment Request equals the number of Load Curtailment Requests.

4.02 The reduction in the Load Curtailment Fee as provided for in section 4.01 is Hydro's sole remedy for any breach of the Agreement by the Customer, including a failure by the Customer to provide Load Curtailment following a request from Hydro.

4.03 A party shall not be liable for failure to comply with its obligations hereunder due to an act of God or force majeure. "Force Majeure" herein means any event that is unforeseeable, and beyond a party's control, which causes a delay in or interrupts or prevents the total or partial performance by that party of any or all of its obligations under this Agreement including, without limiting the generality of the foregoing, war, riot, acts of vandalism, rebellion, epidemic, lightning, earthquake, flood, fire, explosion, government decrees or prohibitions or restrictions by any authority of competent jurisdiction affecting the obligations of the party suffering Force Majeure.

The party affected by Force Majeure shall promptly give written notice to the other party of the event for Force Majeure, stating therein the nature of the event, the obligations affected, the reasons and expected duration of any suspension of performance and the anticipated date of termination of the Force Majeure. The affected party shall use all reasonable efforts to remedy the event of Force Majeure as quickly as possible and shall resume compliance with its obligations hereunder as soon as reasonably possible upon termination of the event of Force Majeure.



ARTICLE 5
TERM OF AGREEMENT

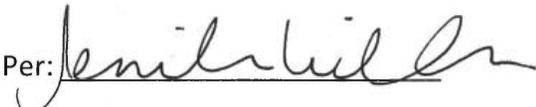
5.01 This Agreement commences as of the date hereof and expires on March 31, 2018; provided however, that either party may terminate this Agreement by providing advance written notice to the other party to that effect no earlier than March 31 and no later than June 30 in any given year, which termination shall be effective for the following Winter.

IN WITNESS WHEREOF, each Party has executed this Agreement by its duly authorized representatives.

Praxair Canada Inc.

Per:  _____
Title: VP- M&O

Newfoundland and Labrador Hydro

Per:  _____
Title: VP, Production

IN THE MATTER OF the *Electrical Power Control Act*, RSNL 1994, Chapter E-5.1 (the *EPCA*) and the *Public Utilities Act*, RSNL 1990, Chapter P-47 (the *Act*) and regulations thereunder;

AND IN THE MATTER OF an Application by Newfoundland and Labrador Hydro for the approval, pursuant to Sections 70 (1), 71 and 80 of the *Act*, of the Revised Capacity Assistance Agreement between Newfoundland and Labrador Hydro and Corner Brook Pulp and Paper Limited.

AFFIDAVIT

I, Jennifer Williams, of St. John's in the Province of Newfoundland and Labrador, make oath and say as follows:

1. I am Vice President, Production of Newfoundland and Labrador Hydro, the Applicant named in the attached Application.
2. I have read and understand the foregoing Application.
3. I have personal knowledge of the facts contained therein, except where otherwise indicated, and they are true to the best of my knowledge, information and belief.

SWORN at St. John's in the)
Province of Newfoundland and)
Labrador, this 13th day of)
October 2017, before me:)


Barrister – Newfoundland and Labrador


Jennifer Williams

(DRAFT ORDER)
NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

AN ORDER OF THE BOARD

NO. P.U. __ (2017)

1 **IN THE MATTER OF** the *Electrical Power*
2 *Control Act*, RSNL 1994, Chapter E-5.1 (the
3 *EPCA*) and the *Public Utilities Act*, RSNL 1990,
4 Chapter P-47 (the *Act*) and regulations thereunder;

5
6 **AND IN THE MATTER OF** an Application
7 by Newfoundland and Labrador Hydro for the
8 approval, pursuant to Sections 70 (1), 71 and 80
9 of the Act, of the Revised Capacity Assistance
10 Agreement between Newfoundland and Labrador
11 Hydro and Corner Brook Pulp and Paper Limited.

12
13
14 **WHEREAS** Newfoundland and Labrador (“Hydro”) is a corporation continued and
15 existing under the *Hydro Corporation Act, 2007*, is a public utility within the meaning of
16 the *Act*, and is subject to the provisions of the *EPCA*; and

17
18 **WHEREAS** Hydro and Corner Brook Pulp and Paper Limited (“CBPP”) are parties to a Service
19 Agreement whereby Hydro sells electrical power and energy to CBPP upon terms and conditions
20 approved by, and which sales are at rates set by, the Board of Commissioners of Public Utilities
21 for the Province of Newfoundland (“Board”); and

22
23 **WHEREAS** CBPP is willing to curtail its load in order to provide electrical capacity to Hydro;
24 and

25
26 **WHEREAS** Hydro and CBPP are parties to a capacity assistance agreement for 60 MW of
27 capacity assistance which commenced on December 1, 2014 and expires on March 31, 2018
28 providing a reduction in the overall island electrical system demand during peak hours and
29 periods of system constraint and which was approved by the Board by Order No. P.U. 49(2014);
30 and

31
32 **WHEREAS** Hydro and CBPP are parties to a supplemental capacity assistance agreement which
33 also expires on March 31, 2018 providing for up to an additional 30 MW of capacity assistance;
34 and

35
36 **WHEREAS** Hydro and CBPP desire to combine the two existing capacity assistance agreements
37 into one single revised agreement (the Revised Capacity Assistance Agreement); and

1 **WHEREAS** on October 13, 2017 the Board received an application from Hydro requesting
2 approval of the purposed Revised Capacity Assistance Agreement with CBPP, commencing
3 November 1, 2017 and running for a five year term or until the commissioning of the Muskrat
4 Falls plant, whichever is earlier (the “Application”); and

5
6 **WHEREAS** Hydro has demonstrated that the proposed Revised Capacity Assistance Agreement
7 between Hydro and CBPP is economical and will provide additional reliability to the Island
8 Interconnected System.

9

10 **IT IS THEREFORE ORDERED THAT:**

11

12 1. Hydro may enter into the proposed Revised Capacity Assistance Agreement with
13 CBPP, effective November 1, 2017 and recover the related expenses as reasonable
14 and prudent and properly chargeable to operating account.

15 2. Hydro shall pay all expenses of the Board arising from this Application.

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20 **DATED** at St. John’s, Newfoundland and Labrador, this __ day of _____, ____.

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