

**NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES**

AN ORDER OF THE BOARD

NO. P.U. 31(2017)

1 **IN THE MATTER OF** the *Electrical Power*
2 *Control Act, 1994*, SNL 1994, Chapter E-5.1 (the
3 “*EPCA*”) and the *Public Utilities Act*, RSNL
4 1990, Chapter P-47 (the “*Act*”), as amended,
5 and regulations thereunder; and
6

7 **IN THE MATTER OF** an application by
8 Newfoundland and Labrador Hydro for approval
9 of revisions to the Rate Stabilization Plan Rules, a
10 revision to the Industrial customer rate sheets and the
11 transfer of the Industrial Customer Rate Stabilization
12 Plan Surplus Balance to the Industrial Customer Rate
13 Stabilization Current Plan.
14
15

16 **WHEREAS** Newfoundland and Labrador Hydro (“Hydro”) is a corporation continued and
17 existing under the *Hydro Corporation Act, 2007*, is a public utility within the meaning of the *Act*,
18 and is also subject to the provisions of the *EPCA*; and
19

20 **WHEREAS** on September 14, 2017 Hydro filed an application (the “Application”) with the Board
21 requesting approval of:

- 22 (i) revisions to the Rate Stabilization Plan (“RSP”) Rules;
- 23 (ii) a revision to the Industrial customer rate sheets; and
- 24 (i) the transfer of the Industrial Customer RSP Surplus balance to the Industrial Customer
25 RSP Current Plan; and
26

27 **WHEREAS** the Application stated that revisions to the RSP Rules are required to i) reflect
28 changes to the published Bank of Canada foreign exchange rates, and ii) clarify that fuel price
29 projection calculations reflect that fuel price changes are relative to the test year fuel cost; and
30

31 **WHEREAS** the Application stated that a revision to the Industrial customer rate sheets is required
32 to remove the reference to the RSP Surplus rate adjustment which was discontinued effective July
33 1, 2017; and
34

35 **WHEREAS** the Application proposed a one time transfer, effective September 30, 2017, to the
36 Industrial Customer RSP Current Plan of the debit balance owing to Hydro from the Industrial
37 customers in relation to the RSP Surplus rate adjustment, to permit recovery of the balance through
38 the normal RSP adjustment on January 1, 2018; and

1 **WHEREAS** the Application was copied to: Newfoundland Power Inc.; the Consumer Advocate,
 2 Dennis Browne, Q.C.; a group of Island Industrial customers: Corner Brook Pulp and Paper
 3 Limited and NARL Refining Limited Partnership (“Industrial Customer Group”); Vale
 4 Newfoundland and Labrador Limited; Praxair Canada Inc.; and Teck Resources Limited; and
 5

6 **WHEREAS** Newfoundland Power Inc. and the Industrial Customer Group advised that they did
 7 not have any comments on the Application; and
 8

9 **WHEREAS** the Board did not receive any comments from the other parties; and
 10

11 **WHEREAS** Hydro filed a reply requesting the Board approve the Application; and
 12

13 **WHEREAS** the Board is satisfied that the proposed revisions are required to accurately reflect the
 14 Industrial customer rates, to provide for the recovery of the balance owing to Hydro with respect
 15 to the RSP Surplus rate adjustment, and to provide clarity in relation to the operation of the RSP.
 16
 17

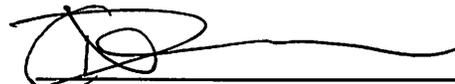
18 **IT IS THEREFORE ORDERED THAT:**
 19

- 20 1. The revisions to the Rate Stabilization Plan rules, as set out in Schedule A to this Order,
 21 effective September 30, 2017, are approved.
 22
 23 2. The revision to the Industrial Customer rate sheets, as set out in Schedule B to this Order,
 24 effective September 30, 2017, is approved.
 25
 26 3. A transfer of the balance in the Industrial Customer RSP Surplus account to the Industrial
 27 Customer RSP Current Plan, effective September 30, 2017, is approved.
 28
 29 4. Hydro shall pay all expenses of the Board arising from this Application.

DATED at St. John’s, Newfoundland and Labrador, this 10th day of October, 2017.



 Darlene Whalen, P. Eng.
 Vice-Chair



 Dwanda Newman, LL.B.
 Commissioner



 Cheryl Blundon
 Board Secretary

NEWFOUNDLAND AND LABRADOR HYDRO
RATE STABILIZATION PLAN

The Rate Stabilization Plan of Newfoundland and Labrador Hydro (Hydro) is established for Hydro's Utility customer, Newfoundland Power, and Island Industrial customers to smooth rate impacts for variations between actual results and Test Year Cost of Service estimates for:

- hydraulic production;
- No. 6 fuel cost used at Hydro's Holyrood generating station;
- customer load (Utility and Island Industrial); and
- rural rates.

The formulae used to calculate the Plan's activity are outlined below. Positive values denote amounts owing from customers to Hydro whereas negative values denote amounts owing from Hydro to customers.

Section A: Hydraulic Production Variation

1. Activity:

Actual monthly production is compared with the Test Year Cost of Service Study in accordance with the following formula:

$$\{(A - B) \div C\} \times D$$

Where:

- A = Test Year Cost of Service Net Hydraulic Production (kWh)
- B = Actual Net Hydraulic Production (kWh)
- C = Test Year Cost of Service Holyrood Net Conversion Factor (kWh /bbl.)
- D = Monthly Test Year Cost of Service No. 6 Fuel Cost (\$/Can /bbl.)

2. Financing:

Each month, financing charges, using Hydro's approved Test Year weighted average cost of capital, will be calculated on the balance.

3. Hydraulic Variation Customer Assignment:

Customer assignment of hydraulic variations will be performed annually as follows:

$$(E \times 25\%) + F$$

Where:

- E = Hydraulic Variation Account Balance as of December 31, excluding financing charges
- F = Financing charges accumulated to December 31

The total amount of the Hydraulic Customer Assignment shall be removed from the Hydraulic Variation Account.

NEWFOUNDLAND AND LABRADOR HYDRO
RATE STABILIZATION PLAN (Continued)

4. Customer Allocation:

The annual customer assignment will be allocated among the Island Interconnected customer groups of (1) Newfoundland Power; (2) Island Industrial Firm; and (3) Rural Island Interconnected. The allocation will be based on percentages derived from 12 months-to-date kWh for: Utility Firm and Firmed-Up Secondary invoiced energy, Industrial Firm invoiced energy, and Rural Island Interconnected bulk transmission energy.

The portion of the hydraulic customer assignment which is initially allocated to Rural Island Interconnected will be re-allocated between Newfoundland Power and regulated Labrador Interconnected customers in the same proportion which the Rural Deficit was allocated in the approved Test Year Cost of Service Study.

The Newfoundland Power and Island Industrial customer allocations shall be included with the Newfoundland Power and Island Industrial RSP balances respectively as of December 31 each year. The Labrador Interconnected Hydraulic customer allocation shall be written off to Hydro's net income (loss).

Section B: Fuel Cost Variation, Load Variation and Rural Rate Alteration

1. Activity

1.1 Fuel Cost Variations

This is based on the consumption of No. 6 Fuel at the Holyrood Generating Station:

$$(G - D) \times H$$

Where:

D = Monthly Test Year Cost of Service No. 6 Fuel Cost (\$/Can /bbl.)

G = Monthly Actual Average No. 6 Fuel Cost (\$/Can /bbl.)

H = Monthly Actual Quantity of No. 6 Fuel consumed less No. 6 fuel consumed for non-firm sales (bbl.)

1.2 Load Variations

Firm: Firm load variation is comprised of fuel and revenue components. The load variation is determined by calculating the difference between actual monthly sales and the Test Year Cost of Service Study sales, and the resulting variance in No. 6 fuel costs and sales revenues. It is calculated separately for Newfoundland Power firm sales and Industrial firm sales, in accordance with the following formula:

$$(I - J) \times \{(D \div C) - K\}$$

NEWFOUNDLAND AND LABRADOR HYDRO
RATE STABILIZATION PLAN (Continued)

Where:

C = Test Year Cost of Service Holyrood Net Conversion Factor (kWh /bbl.)

D = Monthly Test Year Cost of Service No. 6 Fuel Cost (\$Can /bbl.)

I = Actual Sales, by customer class (kWh)

J = Test Year Cost of Service Sales, by customer class (kWh)

K = Firm energy rate, by customer class

Secondary: Secondary load variation is based on the revenue variation for Utility Firm-Up Secondary energy sales compared with the Test Year Cost of Service Study, in accordance with the following formula:

$$(J - I) \times L$$

Where:

I = Actual Sales (kWh)

J = Test Year Cost of Service Sales (kWh)

L = Secondary Energy Firming Up Charge

1.3 Rural Rate Alteration

Newfoundland Power Rate Change Impacts:

This component is calculated for Hydro's rural customers whose rates are directly or indirectly impacted by Newfoundland Power's rate changes, with the following formula:

$$(M - N) \times O$$

Where:

M = Cost of Service rate

N = Existing rate

O = Actual Units (kWh, bills, billing demand)

2. Monthly Customer Allocation: Load and Fuel Activity

Each month, the year-to-date total for fuel price variation and the year-to-date total for the load variation will be allocated among the Island Interconnected customer groups of (1) Newfoundland Power; (2) Island Industrial Firm; and (3) Rural Island Interconnected. The allocation will be based on percentages derived from 12 months-to-date kWh for: Utility Firm and Firm-Up Secondary invoiced energy, Industrial Firm invoiced energy, and Rural Island Interconnected bulk transmission energy.

The year-to-date portion of the fuel price variation and the year-to-date portion of the load variation which is initially allocated to Rural Island Interconnected will be re-allocated between Newfoundland Power and regulated Labrador Interconnected customers in the same proportion

NEWFOUNDLAND AND LABRADOR HYDRO
RATE STABILIZATION PLAN (Continued)

which the Rural Deficit was allocated in the approved Test Year Cost of Service Study.

The current month's activity for Newfoundland Power, Island Industrials and regulated Labrador Interconnected customers will be calculated by subtracting year-to-date activity for the prior month from year-to-date activity for the current month. The current month's activity allocated to regulated Labrador Interconnected customers will be removed from the Plan and written off to Hydro's net income (loss).

3. Monthly Customer Allocation: Rural Rate Alteration Activity

Each month, the rural rate alteration will be allocated between Newfoundland Power and regulated Labrador Interconnected customers in the same proportion which the Rural Deficit was allocated in the approved Test Year Cost of Service Study. The portion allocated to regulated Labrador Interconnected will be removed from the Plan and written off to Hydro's net income (loss).

4. Plan Balances

Separate plan balances for Newfoundland Power, the Island Industrial customer class and the segregated load variation will be maintained. The RSP balances shall be adjusted by other amounts as ordered by the Board. Financing charges on the plan balances will be calculated monthly using Hydro's approved Test Year weighted average cost of capital.

Section C: Fuel Price Projection

A fuel price projection will be calculated to anticipate forecast fuel price changes and to determine fuel riders for the rate adjustments. For industrial customers, this will occur in October each year, for inclusion with the RSP adjustment effective January 1. For Newfoundland Power, this will occur in April each year, for inclusion with the RSP adjustment effective July 1.

1. Industrial Fuel Price Projection:

In October each year, a fuel price projection for the following January to December shall be made to estimate a change from Test Year No. 6 Fuel Cost. Hydro's projection shall be based on the change from the average Test Year No. 6 fuel cost, in Canadian dollars per barrel, determined from the forecast oil prices provided by the PIRA Energy Group, and the current US exchange rate. The calculation for the projection is:

$$[(S + T) \times U] - V \times W$$

NEWFOUNDLAND AND LABRADOR HYDRO
RATE STABILIZATION PLAN (Continued)

Where:

- S = the September month-end PIRA Energy Group average monthly forecast for No. 6 fuel prices at New York Harbour for the following January to December
T = Hydro's average fuel contract premium or (discount) (\$US/bbl) for the following January to December
U = the monthly average of the \$Cdn / \$US Bank of Canada Exchange Rate for the month of September
V = average Test Year Cost of Service cost of No. 6 Fuel (\$Can /bbl.)
W = the number of barrels of No. 6 fuel forecast to be consumed at the Holyrood Generating Station for the Test Year.

The industrial customer allocation of the forecast fuel price change will be based on 12 months-to-date kWh as of the end of September and is the ratio of Industrial Firm invoiced energy to the total of: Utility Firm and Firmed-Up Secondary invoiced energy, Industrial Firm invoiced energy, and Rural Island Interconnected bulk transmission energy.

The amount of the forecast fuel price change, in Canadian dollars, and the details of an estimate of the fuel rider based on 12 months-to-date kWh sales to the end of September will be reported to industrial customers, Newfoundland Power, and the Public Utilities Board, by the 10th working day of October.

2. Newfoundland Power Fuel Price Projection:

In April each year, a fuel price projection for the following July to June shall be made to estimate a change from Test Year No. 6 Fuel Cost. Hydro's projection shall be based on the change from the average Test Year No. 6 fuel cost, in Canadian dollars per barrel, determined from the forecast oil prices provided by the PIRA Energy Group, and the current US exchange rate. The calculation for the projection is:

$$[(X + T) \times Y] - V \times W$$

Where:

- T = Hydro's average fuel contract premium or (discount) (\$US/bbl) for the following July to June
V = average Test Year Cost of Service cost of No. 6 Fuel (\$Can /bbl.)
W = the number of barrels of No. 6 fuel forecast to be consumed at the Holyrood Generating Station for the Test Year.
X = the average of the March month-end PIRA Energy Group average monthly forecast for No. 6 fuel prices at New York Harbour for July to December of the current year and for the January to June period of the subsequent year.
Y = the monthly average of the \$Cdn / \$US Bank of Canada Exchange Rate for the month of March

NEWFOUNDLAND AND LABRADOR HYDRO
RATE STABILIZATION PLAN (Continued)

The Newfoundland Power customer allocation of the forecast fuel price change will be based on 12 months-to-date kWh as of the end of March and is the ratio of Newfoundland Power Firm and Firmed-Up Secondary invoiced energy to the total of: Utility Firm and Firmed-Up Secondary invoiced energy, Industrial Firm invoiced energy, and Rural Island Interconnected bulk transmission energy.

The amount of the forecast fuel price change, in Canadian dollars, and the details of the resulting fuel rider applied to the adjustment rate will be reported to Newfoundland Power, industrial customers, and the Public Utilities Board, by the 10th working day of April.

Section D: Adjustment

1. Newfoundland Power

As of March 31 each year, Newfoundland Power's adjustment rate for the 12-month period commencing the following July 1 is determined as the rate per kWh which is projected to collect:

Newfoundland Power March 31 Balance

less projected recovery / repayment of the balance for the following three months (if any), estimated using the energy sales (kWh) for April, May and June from the previous year

plus forecast financing charges to the end of the 12-month recovery period (i.e., June in the following calendar year),

divided by the 12-months-to-date firm plus firmed-up secondary kWh sales to the end of March.

A fuel rider shall be added to the above adjustment rate, based on the Newfoundland Power Fuel Price Projection amount (as per Section C.2 above) divided by 12-months-to-date kWh sales to the end of March.

When new Test Year base rates come into effect, if a fuel rider forecast (either March or September) is more current than the test year fuel forecast, a fuel rider will be implemented at the same time as the change in base rates reflecting the more current fuel forecast and the new test year values.

Otherwise, the fuel rider portion of the RSP Adjustment will be set to zero upon implementation of the new Test Year Cost of Service rates, until the time for the next fuel price projection.

NEWFOUNDLAND AND LABRADOR HYDRO
RATE STABILIZATION PLAN (Continued)

2. Island Industrial Customers

As of December 31 each year, the adjustment rate for industrial customers for the 12-month period commencing January 1 is determined as the rate per kWh which is projected to collect:

Industrial December 31 Balance

plus forecast financing charges to the end of the following calendar year,

divided by 12-months-to-date kWh sales to the end of December.

A fuel rider shall be added to the above adjustment rate, based on the Industrial Fuel Price Projection (as per Section C.1 above) amount divided by 12-months-to-date kWh sales to the end of December.

When new Test Year base rates come into effect, if a fuel rider forecast (either March or September) is more current than the test year fuel forecast, a fuel rider will be implemented at the same time as the change in base rates reflecting the more current fuel forecast and the new test year values.

Otherwise, the fuel rider portion of the RSP Adjustment will be set to zero upon implementation of the new Test Year Cost of Service rates, until the time for the next fuel price projection.

Section E: RSP Surplus:

The Newfoundland Power allocated amount of the RSP Surplus will be refunded to Newfoundland Power and Hydro's Rural customers in accordance with Hydro's Customer Refund Plan approved in Order No. P.U. 36(2016).

Financing charges on the Newfoundland Power plan balance will be calculated monthly using Hydro's approved Test Year weighted average cost of capital.

NEWFOUNDLAND AND LABRADOR HYDRO
INDUSTRIAL – FIRM

Availability:

Any person purchasing power, other than a retailer, supplied from the Interconnected Island bulk transmission grid at voltages of 66 kV or greater on the primary side of any transformation equipment directly supplying the person and who has entered into a contract with Hydro for the purchase of firm power and energy.

Base Rate*:

Demand Charge:

The rate for Firm Power, as defined and set out in the Industrial Service Agreements, shall be
\$7.99 per kilowatt (kW) per month of billing demand.

Firm Energy Charge:

Base Rate @ 3.971 ¢ per kWh

RSP Adjustment:

RSP Adjustment:

Current Plan - Normal..... @ (0.373) ¢ per kWh
Current Plan Mitigation Adjustment @ (0.313) ¢ per kWh

Current Plan - Total @ (0.686) ¢ per kWh
Fuel Rider..... @ 0.625 ¢ per kWh

Total RSP Adjustment – All kilowatt-hours..... @ (0.061) ¢ per kWh

CDM Cost Recovery Adjustment.....@ 0.009 ¢ per kWh

NEWFOUNDLAND AND LABRADOR HYDRO
INDUSTRIAL – FIRM

Specifically Assigned Charges:

The table below contains the additional annual specifically assigned charges for customer plant in service that is specifically assigned to the Customer.

	Annual Amount
Corner Brook Pulp and Paper Limited	\$ 870,898
North Atlantic Refining Limited	\$ 89,293
Teck Resources Limited	\$ 199,399
Vale	\$ 480,243

***Subject to RSP Adjustments and CDM Cost Recovery Adjustment:**

RSP Adjustments refers to all applicable adjustments arising from the operation of Hydro's Rate Stabilization Plan, which levelizes variations in hydraulic production, fuel cost, load and rural rates.

The CDM Cost Recovery Adjustment is updated annually to provide recovery over a seven year period of costs charged annually to the Conservation and Demand Management (CDM) Cost Deferral Account.

Adjustment for Losses:

If the metering point is on the load side of the transformer, either owned by the customer or specifically assigned to the customer, an adjustment for losses as determined in consultation with the customer prior to January 31 of each year shall be applied.

General:

Details regarding the conditions of Service are outlined in the Industrial Service Agreements. **This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.**

NEWFOUNDLAND AND LABRADOR HYDRO
INDUSTRIAL – Non-Firm

Availability:

Any person purchasing power, other than a retailer, supplied from the Interconnected Island bulk transmission grid at voltages of 66 kV or greater on the primary side of any transformation equipment directly supplying the person and who has entered into a contract with Hydro for the purchase of firm power and energy.

Rate:

Non-Firm Energy Charge (¢ per kWh):

Non-Firm Energy is deemed to be supplied from thermal sources. The following formula shall apply to calculate the Non-Firm Energy rate:

$$\{(A \div B) \times (1 + C) \times (1 \div (1 - D))\} \times 100$$

- A = the monthly average cost of fuel per barrel for the energy source in the current month or, in the month the source was last used
- B = the conversion factor for the source used (kWh/bbl)
- C = the administrative and variable operating and maintenance charge (10%)
- D = the average system losses on the Island Interconnected grid for the last five years ending in 2013 (3.47%).

The energy sources and associated conversion factors are:

1. Holyrood, using No. 6 fuel with a conversion factor of 618 kWh/bbl
2. Gas turbines using No. 2 fuel with a conversion factor of 475 kWh/bbl
3. Diesels using No. 2 fuel with a conversion factor of 556 kWh/bbl.

Adjustment for Losses:

If the metering point is on the load side of the transformer, either owned by the customer or specifically assigned to the customer, an adjustment for losses as determined in consultation with the customer prior to January 31 of each year shall be applied.

General:

Details regarding the conditions of Service are outlined in the Industrial Service Agreements. **This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.**

NEWFOUNDLAND AND LABRADOR HYDRO
INDUSTRIAL – WHEELING

Availability:

Any person purchasing power, other than a retailer, supplied from the Interconnected Island bulk transmission grid at voltages of 66 kV or greater on the primary side of any transformation equipment directly supplying the person and who has entered into a contract with Hydro for the purchase of firm power and energy and whose Industrial Service Agreement so provides.

Rate:

Energy Charge:

All kWh (Net of losses)* @ 0.423 ¢ per kWh

* For the purpose of this Rate, losses shall be 3.47%, the average system losses on the Island Interconnected Grid for the last five years ending in 2013.

General:

Details regarding the conditions of Service are outlined in the Industrial Service Agreements.
This rate schedule does not include the Harmonized Sales Tax (HST) which applies to electricity bills.