newfoundland labrador
hydro
a nalcor energy company

Hydro Place. 500 Columbus Drive.
P.O. Box 12400. St. John's. NL
Canada A1B 4K7
t. 709.737.1400 f. 709.737.1800
www.nlh.nl.ca

May 15, 2018

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

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

Dear Ms. Blundon:

Re: Return on Equity (ROE) Rate Change Deferral Account

Further to Newfoundland and Labrador Hydro's (Hydro's) 2017 General Rate Application (GRA) Settlement Agreement, enclosed please find one (1) original and thirteen (13) copies of Hydro's ROE Rate Change Deferral Account Definition.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO

Geoffrey P. Young,
Corporate Secretary & General Counsel
GPY/skc

cc: Gerard Hayes – Newfoundland Power Inc.
Paul Coxworthy – Stewart McKelvey
Denis J. Fleming – Cox & Palmer
Dennis Browne, Q.C. – Browne Fitzgerald Morgan & Avis
Dean Porter – Poole Althouse

ecc: Van Alexopolous – Iron Ore Company
Senwung Luk – Olthuis Kleer Townshend LLP
Benoit Pepin – Rio Tinto

Newfoundland and Labrador Hydro
Return on Equity (ROE) Rate Change Deferral Account

Purpose

As per Board Order No. P.U. 49(2016), Newfoundland and Labrador Hydro's (Hydro's) target Return on Equity (ROE) percentage must be adjusted as required to equal the ROE approved for Newfoundland Power. The purpose of the ROE Rate Change Deferral Account is to defer recovery of the change in test year revenue requirement that will occur due to the customer rate implementation date differing from the effective date of the approved ROE percentage.

Methodology

As a result of changes in the ROE percentage between test years, the methodology originally filed as Sections 1 to 5 of Exhibit 12 to the 2017 GRA filing and included as Attachment 1 will be used in determining the change in revenue requirement by rate class and rate design.

Rate Implementation Process

The implementation process for changing customer rates that result from ROE revenue requirement adjustments shall include:

a) an application by Hydro to change rates for Hydro Rural Labrador Interconnected and Labrador Interconnected Industrial Customers reflecting the allocated revised test year revenue requirement based on the effective date of revised test year ROE;
b) proposals by Hydro to change rates for Newfoundland Power and Island Industrial Customers reflecting the revised test year ROE revenue requirements to accompany Hydro's applications to update the RSP adjustments.

Balance Accumulation

The annual ROE revenue requirement adjustments for Newfoundland Power and Island Industrial Customers reflecting the revised test year ROE percentage will be converted to monthly revenue requirement adjustments to be recorded in the ROE Rate Change Deferral Account for each month of delayed rate implementation.

If the effective date of revised customer rates on the Labrador Interconnected System is subsequent to the effective date of the approved revised test year ROE, Hydro will record the test year revenue requirement impacts of delayed rate implementation in the ROE Rate Change Deferral Account.

Disposition

On June 30 of each year, the balance attributable to Newfoundland Power will be transferred to the Newfoundland Power RSP Current Plan balance for disposition through the RSP recovery adjustment for the subsequent 12 month period.

On December 31 of each year, the balance attributable to Island Industrial Customers will be transferred to the Island Industrial Customers RSP Current Plan balance for disposition through the Industrial Customer RSP recovery adjustment for the subsequent 12 month period.

Any balances related to Labrador Interconnected customers will be proposed for disposition at Hydro's next General Rate Application.

Automatic Return on Equity Adjustment

Newfoundland and Labrador Hydro

June 2017

A Report to the Board of Commissioners of Public Utilities

Table of Contents

1.0 Overview

In Board Order No. P.U. 49(2016), the Board of Commissioners of Public Utilities (the Board) determined that Newfoundland and Labrador Hydro's (Hydro) target return on equity should be subject to an adjustment process in the years between General Rate Applications (GRAs) so that it continues to be the same as Newfoundland Power's return on equity. As such, it directed Hydro to file a proposal in relation to an adjustment mechanism for its target return on equity.

This report provides an overview of the calculation of the adjustment to return on equity, the allocation of the adjustment to various customers, the required adjustment to customer rates to reflect the change in revenue requirement, and any process related matters to implement the rate adjustment.

2.0 Flow-through of Adjustment to Return on Equity

2.1 Adjustment to Return on Equity and Weighted Average Cost of Capital

Upon the delivery of an order to change Newfoundland Power's rate of return on equity, Hydro would be required to update its return on equity to be equal to that of Newfoundland Power. This change would, in turn, cause a change in Hydro's weighted average cost of capital and return on rate base. For illustrative purposes, Hydro's 2015 Test Year weighted average cost of capital (WACC) for rate setting would reduce from 6.61% to 6.56% if the approved Test Year return on equity was revised from 8.50% to 8.25%.

Appendix A to this report provides the calculation showing the impact on WACC and return on rate base of 25 basis point reduction in the Test Year return on equity based on the illustrative change in return on equity noted above.

2.2 Adjustment to Revenue Requirement for Rate Setting

To reflect a revised return on rate base in customer rates and ensure that Hydro's rates reflect the same return on equity as Newfoundland Power would require Hydro to calculate a revised

Test Year revenue requirement for rate setting. Using the illustrative change in return on equity noted in section 2.1, a reduction of 5 basis points in return on rate base would reduce Hydro's revenue requirement to be recovered through customer rates by $964,000, or approximately 0.17% of the approved 2015 Test Year revenue requirement from customer rates.

The calculation of the revised Test Year revenue requirement was derived by updating the Test Year rate of return on rate base (as provided in Appendix A) in the calculation of the revised Test Year return on rate base. Finance schedules showing the derivation of the revised 2015 Test Year revenue requirement for rate setting reflecting the illustrative change from 8.50% return on equity to 8.25% return on equity is provided in Appendix B.

3.0 Allocation of Revised Revenue Requirement

In order to allocate the return on equity adjustment amongst customer groups, Hydro would be required to revise its approved Test Year cost of service for rate setting to reflect the revised Test Year return on rate base. Doing so would provide revised Test Year revenue requirements by class consistent with the approved cost of service methodology for the most recently approved Test Year. As Hydro would be revising the approved Test Year cost of service study, Hydro would submit a revised Test Year cost of service study for Board approval reflecting the revised return on equity approved for Newfoundland Power.

Table 1 provides the impact of 25 basis point return on equity decrease on 2015 Test Year revenue requirement by rate class.

Table 1

Allocation of Revised Revenue Requirement

Customer Group	**Approved 2015 Test Year Revenue Requirement ($000)**	**Revised 2015 Test Year Revenue Requirement ($000)**	**Change ($000)**	**Change (%)**
Newfoundland Power – Incl. Rural Deficit	443,366	442,515	(851)	(0.19)
Island Industrial	34,829	34,776	(53)	(0.15)
Labrador Industrial	5,218	5,210	(8)	(0.15)
CFB Goose Bay Secondary	932	932	0	0.00
Hydro Rural Labrador Int. – Incl. Rural Deficit	20,169	20,117	(52)	(0.26)
Rural Revenues from Deficit Areas	60,851	60,851	0	0.00
Total	**565,365**	**564,401**	**(964)**	**(0.17)**

Table 1 allocates the reduced Rural Deficit of $203,000 resulting from the reduction in the Test Year return on rate base to Newfoundland Power and the Hydro Rural Labrador Interconnected customers.

4.0 Revisions to Customer Rates

Hydro would follow the Board's most recently approved rate design approach in computing proposed rates to recover the revised Test Year revenue requirement.

For Newfoundland Power, the second block energy rate is currently set based on the Test Year price of Holyrood fuel and the demand charge is negotiated. Therefore, Hydro would propose that changes to the Test Year revenue requirement allocated to Newfoundland Power would be applied through a change in the first block rate.

The Island Industrial Customers' rates for demand, energy, and specifically assigned charges currently are an output from the approved Test Year cost of service study. Hydro proposes to use this same approach, using the Revised Test Year cost of service study, for Island Industrial

Customer rate design. For Hydro Rural Labrador Interconnected and Labrador Industrial Transmissions customers, Hydro proposes to adjust customer rates by applying the percentage change in Test Year revenue requirement for each class of service.

Hydro Rural rates would be required to change when Newfoundland Power's return changes to ensure its customers receive the same rates as Newfoundland Power regardless of whether Hydro changed its return on equity, so there would be no change in existing process for these customers.

With an automatic update to Hydro's Test Year revenue requirement due to a change in the return on equity from Newfoundland Power, the process for implementation of compliance rates reflecting a Newfoundland Power GRA would be required to change. The compliance application for Newfoundland Power would also need to reflect the revised supply cost from Hydro as a result of any required change in the approved return on equity for Hydro. Therefore, Hydro's compliance application in response to the establishment of a revised return on equity would need to be filed prior to Newfoundland Power filing its application to establish customer rates.

5.0 Revisions to Excess Earnings Account Definition

As Hydro's rate of return on rate base would be impacted by a change of return on equity, Hydro would be required to revise its Excess Earnings Account definition to reflect the revised rate of return on rate base.

6.0 Implementation Process

Hydro proposes that it would file an automatic adjustment application with the Board within 10 business days following the publication of a Board Order approving Newfoundland Power's return on equity. Hydro's application would include the following:

- Revised Test Year weighted average cost of capital and rate of return on rate base to reflect return on equity equal to that approved for Newfoundland Power;

- Finance schedules providing revised requirement from customer rates;
- Revised test year cost of service study identifying change in revenue requirement by customer class;
- Derivation of revised customer rates;
- Revised Excess Earnings Account Definition; and
- Proposed revised schedule of rates, toll and charges.

7.0 Conclusion

Board Order No. P.U. 49(2016) directed Hydro to file a proposal in relation to an adjustment mechanism for its target return on equity to reflect any future changes to Newfoundland Power's approved target return on equity for rate setting.[1] Hydro submits that the proposal outlined in this document addresses the Board's order and provides a reasonable approach by which Hydro can ensure its Test Year return on equity reflected in customer rates remains the same as that of Newfoundland Power.

[1] Page 24 of Order No. P.U. 49(2016).

Sample Calculation of Revised Weighted Average Cost of Capital

Regulated Average Capital Structure	Test Year (%)
Debt	74.2
Asset retirement obligation	0.6
Employee future benefits	3.9
Equity	21.2
Total	**100.0**

Weighted Average Cost of Capital[1]	Test Year (%)	Revised (%)
Embedded cost of debt	6.47	6.47
Asset retirement obligation	0.00	0.00
Employee future benefits	0.00	0.00
Equity	8.50	8.25
Weighted Average Cost of Capital	**6.61**	**6.56**

[1] Hydro's rate of return on rate base is equal to its approved weighted average cost of capital.

Appendix B
Page 1 of 3

Sample Finance Schedules
Newfoundland and Labrador Hydro
Financial Results and Forecasts
Statement of Income and Retained Earnings
($000s)

		Rate Setting Test Year	Automatic ROE Adjustment (Year)	Revised Rate Setting Test Year
1	**Revenue**			
2	Energy sales	564,002	(964)	563,038
3	Revenue deficiency	-	-	-
4	Other revenue	2,508	-	2,508
5	**Total revenue**	566,510	(964)	565,546
6				
7	**Expenses**			
8	Operating expenses	131,350	-	131,350
9	Other Income and expense	4,074	-	4,074
10	Fuels	187,464	-	187,464
11	Power purchases	62,827	-	62,827
12	Amortization	63,230	-	63,230
13	Accretion of asset retirement obligation	748	-	748
14	Interest	89,453	-	89,453
15	**Total expenses**	539,145	-	539,145
16				
17	**Net income**	27,364	(964)	26,400
18				
19	**Retained earnings**			
20	Balance at beginning of year	259,556	-	259,556
21	Opening adjustment - retained earnings	-	-	-
22	Dividends	-	-	-
23	**Balance at end of year**	286,920	(964)	285,956

Appendix B
Page 2 of 3

Sample Finance Schedules
Newfoundland and Labrador Hydro
Financial Results and Forecasts
Rate of Return on Rate Base
($000s)

		Rate Setting Test Year	Automatic ROE Adjustment (Year)	Revised Rate Setting Test Year
1	**Property, plant, and equipment**	1,882,883	-	1,882,883
2	add: accumulated depreciation	204,001	-	204,001
3	add: contributions in aid of construction	17,936	-	17,936
5	less: work in progress	(240,977)	-	(240,977)
6	**Capital assets in service**	1,863,843	-	1,863,843
7	less: asset retirement obligation	(12,169)	-	(12,169)
8	less: contributions in aid of construction	(17,936)	-	(17,936)
9	less: accumulated depreciation	(203,834)	-	(203,834)
10	**Capital assets - current year**	1,629,904	-	1,629,904
11	**Capital assets - previous year**	1,610,437	-	1,610,437
12	Unadjusted capital assets - average	1,620,170	-	1,620,170
13	less: Average net assets not in use	(7,318)	-	(7,318)
14	**Capital assets - average**	1,612,852	-	1,612,852
15				
16	Cash working capital allowance	7,037	-	7,037
17	Fuel	47,398	-	47,398
18	Materials and supplies	27,402	-	27,402
19	Deferred charges	95,132	-	95,132
20	less: Deferred Charges not in use	(4,467)	-	(4,467)
21				-
22	**Average rate base**	1,785,353	-	1,785,353
23				
24	Unadjusted return on regulated equity	27,364	(964)	26,400
25	add: Cost of service exclusions	1,177	-	1,177
26	Interest	89,453	-	89,453
27	**Return on rate base**	117,994	(964)	117,030
28				
29	**Rate of return on rate base**	6.61%	-0.05%	6.56%

Appendix B
Page 3 of 3

Sample Finance Schedules
Newfoundland and Labrador Hydro
Financial Results and Forecasts
Capital Structure
($000s)

		Rate Setting Test Year	Automatic ROE Adjustment (Year)	Revised Rate Setting Test Year
1	**Regulated capital structure**			
2	Long-term debt	1,649,544	-	1,649,544
3	Promissory notes	-	-	-
4	Promissory notes - related party	-	-	-
5	less: sinking funds	(238,850)	-	(238,850)
6	add: mark to market of sinking funds	31,071	-	31,071
7		1,441,765	-	1,441,765
8	Cost of service exclusions	-		-
9	Non-regulated debt pool	(8,187)	-	(8,187)
10	Net regulated debt	1,433,578	-	1,433,578
11	Asset retirement obligation	20,740	-	20,740
12	less: unfunded asset retirement obligation	(8,493)	-	(8,493)
13	Employee future benefits	72,454	-	72,454
14	Contributed capital	100,000	-	100,000
15	Retained earnings cost of service exclusions	2,154	-	2,154
16	Retained earnings	286,920	(964)	285,956
17	**Total**	1,907,353	(964)	1,906,389
18				
19	**Regulated capital structure (%)**			
20	Debt	75.2%	-	75.2%
21	Asset retirement obligation	0.6%	-	0.6%
22	Employee future benefits	3.8%	-	3.8%
23	Equity	20.4%	-	20.4%
24	**Total**	100.0%	-	100.0%
25				
26	**Regulated average capital structure (%)**			
27	Debt	74.2%	-	74.2%
28	Asset retirement obligation	0.6%	-	0.6%
29	Employee future benefits	3.9%	-	3.9%
30	Equity	21.2%	-	21.2%
31	**Total**	100.0%	-	100.0%
32				
33	**Weighted average cost of capital (WACC)**			
34	Embedded cost of debt	6.47%	-	6.47%
35	Asset retirement obligation	0.00%	-	0.00%
36	Employee future benefits	0.00%	-	0.00%
37	Equity	8.50%	-0.25%	8.25%
38	**WACC**	6.61%		6.56%