BY HAND

February 2, 2007

Board of Commissioners of Public Utilities Prince Charles Building 120 Torbay Road St. John's, Newfoundland & Labrador A1A 5B2

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

Dear Ms. Blundon:

Re: Hydro's 2006 General Rate Application - Undertaking

Please find enclosed the original and ten copies of Hydro's response to an undertaking by witness Mark Bradbury on the Automatic Adjustment Mechanism Formula (Transcript January 25, 2007 pages 58-59).

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO

Geoffrey P. Young Legal Counsel

Encl.

cc: Peter Alteen - Newfoundland Power Inc. Joseph Hutchings, Q.C. - Poole Althouse Paul Coxworthy - Stewart McKelvey Stirling Scales Tom Johnson – O'Dea Earle Law Offices

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NEWOUNDLAND AND LABRADBOR HYDRO <u>Automatic Adjustment Mechanism Formula</u> As Proposed in Exhibit MGB-1 to Hydro's 2006 General Rate Application August 2006

Hydro's proposed formula for Automatic Change in Rate of Return on Rate

Base consists of two steps.

1. Calculate the Revised Rate of Return on Rate Base:

$$Z = \left[\frac{(C \times E) + (Y \times F)}{G} \right]$$

2. Hydro's proposed formula would adjust the mid-point of the Range of Return on Rate Base as follows:

If Z is greater than (W plus 15 basis points) or less than (W minus 15 basis points), then the adjusted mid-point of the Range of Return on Rate Base is set equal to Z, otherwise W remains unchanged.

Where:

- A = Test Year embedded cost of debt (%)
- B = Test Year percentage of debt in the capital structure (%)
- $C = (A \times B) = Test Year Weighted average cost of debt (%)$
- D = Test Year percentage of equity in the capital structure (%)
- E = Test Year total rural assets in the rate base (\$)
- F = Test Year total non-rural assets in the rate base (\$)

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- G = (E + F) = Test Year total rate base (\$)
- W = Most recently approved rate of return on rate base (%)
- X = Revised cost of equity (%) (see note 1)
- $Y = (C + (D \times X)) = Revised weighted average cost of capital (WACC) (%)$

Notes:

- The revised cost of equity is equal to the average of estimates of Hydro's incremental cost of issuing 30 year debentures carrying the guarantee of the Province of Newfoundland and Labrador for each of the first ten trading days in October each year as provided by two managers of Hydro's borrowing syndicate.
- 2. As employee future benefits are deemed to be a zero cost of capital, they are ignored for purposes of this formula.

Example of formula operation:

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Hydro's currently proposed test year rate of return on rate base is 7.44% within

an approved range of 30 basis points (7.29% to 7.59%).

Assumptions:

- A = Test Year embedded cost of debt = 8.26%
- B = Test Year percentage of debt in the capital structure = 83.58%
- C = $(A \times B)$ = Test Year weighted average cost of debt = 6.904%
- D = Test Year percentage of equity in the capital structure = 14%
- E = Test Year total rural assets in the rate base = \$212 million
- F = Test Year total non-rural assets in the rate base = \$1,277.3 million
- G = (E + F) = Test Year total rate base = \$1,489.3 million
- W = Most recently approved rate of return on rate base = 7.44%
- X = Revised cost of equity (as determined per note 1 above) = $4.4\%^{1}$

Per Hydro's revised application in December 2006, this figure was 4.47%.

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Example of formula operation (continued):

Solve first for **Y**, the Revised Weighted Average Cost of Capital (WACC)

- $Y = (C + (D \times X))$
- = (.06904 + (.14 x .044)) = 0.0752 = **7.52%**

Solve next for **Z**, the Revised Rate of Return on Rate Base:

$$Z = \left[\frac{(C \times E) + (Y \times F)}{G}\right]$$

- = (0.06904 x \$212) + (0.0752 x \$1,277.3) divided by \$1,489.3
- = \$14.64 + \$96.53 divided by \$1,489.3

= 0.0743 or **7.43%**

Example of formula operation (continued):

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Finally **determine the Adjusted Mid-Point** of the Range of Return on Rate Base as follows:

If Z is greater than (W plus 15 basis points) or less than (W minus 15 basis points), then the adjusted mid-point of the Range of Return on Rate Base is set equal to Z, otherwise W remains unchanged, so therefore in this example:

Z = 7.43%

W = 7.44% (within an approved range of 7.29% to 7.59%)

As Z is within the previously approved range, the mid-point remains unchanged at W (7.44%) and the range remains at 7.29% to 7.59%. In the event that the recalculated Z fell outside the previously approved range, then Z would become the new mid-point of the range.