



HAND DELIVERED

October 17, 2011

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

Attention: G. Cheryl Blundon
Director of Corporate Services
and Board Secretary

Ladies and Gentlemen:

Re: 2012 Newfoundland & Labrador Hydro Capital Budget Application

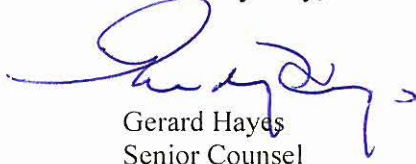
Please find enclosed the original and 8 copies of Newfoundland Power's Requests for Information in relation to Phase III of the 2012 Newfoundland & Labrador Hydro Capital Budget Application, which were initially issued on Friday past. The numbering of the enclosed RFI's has been revised to include indication of the phase of the hearing to which they apply, as requested by the Board Secretary.

For convenience, the Requests for Information are provided on three-hole punched paper.

A copy of this letter, together with enclosures, has been forwarded directly to the parties listed below. An electronic copy in pdf format will follow.

If you have any questions regarding the enclosed, please contact the undersigned at your convenience.

Yours very truly,



Gerard Hayes
Senior Counsel

c. Geoffrey Young
Newfoundland & Labrador Hydro

Thomas Johnson
O'Dea Earle Law Offices

Paul Coxworthy
Stewart McKelvey Stirling Scales



Join us in the fight against cancer.

IN THE MATTER OF

The *Electrical Power Control Act*, RSNL 1994,
Chapter E-5.1 (the “EPCA”) and the
Public Utilities Act, R.S.N.L. 1990,
Chapter P-47, as amended, (the “Act”); and

IN THE MATTER OF an application (the “Application”) by
Newfoundland and Labrador Hydro (“Hydro”) for an Order:

- (1) approving the 2012 capital budget, pursuant to s.41(1) of the Act;
- (2) approving its 2012 capital purchases, and construction projects in excess of \$50,000, pursuant to s.41(3)(a) of the Act;
- (3) approving its leases in excess of \$5,000, pursuant to s.41(3) of the Act
- (4) approving its estimated contributions in aid of construction for 2012, pursuant to s.41(5) of the Act; and
- (5) fixing and determining its average rate base for 2010, pursuant to s.78 of the Act.

Phase III
Requests for Information by
Newfoundland Power Inc.

P3-NP-NLH-1 to P3-NP-NLH-23

October 17, 2011

Requests for Information

Reference: **Upgrade Transmission Line Corridor, Volume I, Page B-27**

P3-NP-NLH-1 Please confirm whether the Upgrade Transmission Line Corridor project is a multi-year project for which Hydro is seeking approval in this Application of \$209 million in capital expenditure over the period 2012 to 2016, or whether the Application seeks approval of only the 2012 expenditure of \$2.6 million.

Reference: ***Upgrade Transmission Line Corridor – Bay d’Espoir to Western Avalon, September 2011, Volume II, Tab 10***

P3-NP-NLH-2 Reference: Figures 4, 5, 6, 7, 9, 10, Figure 12 on page 26, and Figure 12 (sic) on page 27

For each of the referenced figures, please explain the treatment of Newfoundland Power’s hydro generation and the wind generation from the two wind farms.

P3-NP-NLH-3 Reference: Page 24

“...additional generating capacity would not be added east of Bay d’Espoir until 2022...”

Has Hydro considered changing its generation expansion plan to optimize the mix of transmission and generation that would result in a least cost expansion of the power supply to the system east of Bay d’Espoir? If so, please provide a cost-based rationale as to why changes in the generation expansion plan were not included in the mix of alternatives considered in the report. If not, why not?

P3-NP-NLH-4 Reference: Page 5

“The GIS ring bus addition will contain one spare line termination for a future 230 kV transmission line to the east, if/when it may be required?”

Under what circumstances might a future 230 kV transmission line to the east be required, and what criteria will be used to determine the requirement and timing of the addition of such line?

- P3-NP-NLH-5 Further to Request for Information NP-NLH-4, please provide an estimated cost of the 230 kV transmission line in question?
- P3-NP-NLH-6 Further to Request for Information NP-NLH-4, please compare the cost of a compact gas insulated switchgear ring bus configuration with a traditional ring bus design?
- P3-NP-NLH-7 Reference: Page 4
- Has Hydro considered terminating the proposed new line at a different location than Western Avalon to avoid the cost of adding a new 230 kV ring bus at Western Avalon? If so, please provide a cost-based rationale as to why the alternative of terminating the new line at such other location was not included in the mix of alternatives considered in the report. If not, why not?
- P3-NP-NLH-8 Reference: Page 5
- Why has Hydro included the study to investigate suspension insulators on TL206 in the Upgrade Transmission Line Corridor project, rather than presenting it as a standalone project for 2012?
- P3-NP-NLH-9 Reference: Page 21, Figure 7
- What is the status of the capacitor bank installation at Come By Chance Terminal Station?
- P3-NP-NLH-10 Reference: Page 21, Figure 7
- Will the capacitor bank at Come By Chance Terminal Station be included in Hydro's regulated rate base?
- P3-NP-NLH-11 Reference: Figures 4, 5, 6, 7, 9, 10, Figure 12 on page 26, and Figure 12 (sic) on page 27
- Please explain why the capacitor bank at Come By Chance Terminal Station is not included in all of the load flow diagrams presented in the study.

P3-NP-NLH-12 Reference: Page 16, Figure 4

Please provide the load flow diagram presented in Figure 4, revised to include the impact of the capacitor bank at Come By Chance Terminal Station.

P3-NP-NLH-13 Reference: Page 17, Table 6

Please update Table 6 to reflect the impact of the capacitor bank at Come By Chance Terminal Station on the existing system capacity of 854 MW east of Bay d’Espoir.

P3-NP-NLH-14 Reference: Page 22, Figure 8

The report refers to angular instability that will not be improved through the addition of shunt capacitors alone. The green line in Figure 8 shows the system is highly unstable in a scenario where only shunt capacitor banks are added to the transmission system.

Please provide a revised Figure 8 graphically depicting the angular stability of the existing transmission system before the addition of shunt capacitors.

P3-NP-NLH-15 Reference: Pages 23 - 24

The report states that Alternative (5), as described on page 18, would not be adequate to meet capacity requirements beyond 2017. The report states that Alternative (6), as described on page 18, ensures sufficient transmission capacity until 2022.

Provide a net present value analysis comparing Alternative (6) with an alternative which includes, in addition to the upgrades provided for in Alternative (5), adding or advancing the timing of generation sufficient to meet capacity requirements until 2022.

P3-NP-NLH-16 Reference: Page 32

The report refers to a full import of 475 MW from the Maritimes under the Labrador Infeed scenario during the loss of the HVdc link between Labrador and the Island. What improvements, if any, would be required to the transmission system west of Bay d’Espoir to accommodate the full

import of 475 MW from the Maritimes, and what are the anticipated future capital expenditures associated with these improvements?

P3-NP-NLH-17 Reference: Section 4 Justification

The report appears to indicate that the principal factors considered in justifying the new 230 kV transmission line are: (i) a lack of reactive power, (ii) limited thermal capacity of the existing transmission system and (iii) system stability. Under the Continued Isolated Island scenario, please provide a table summarizing the performance of Alternatives (1) through (8), as described on page 18, with respect to items (i) through (iii) above.

P3-NP-NLH-18 References: Page 15

Please describe the voltage collapse as referred to on page 15. In the description please provide a graph that shows how the voltage will collapse as the load exceeds the reactive power capability on the system east of Bay d'Espoir.

P3-NP-NLH-19 Reference: Page 16, Figure 4

The lowest voltage indicated in Figure 4 is 0.918 per unit at the 230 kV bus at the new Vale Terminal Station. What is the minimum acceptable voltage level on the 230 kV transmission system?

P3-NP-NLH-20 Reference: Page 8, Table 3

Please provide a revised Table 3 reflecting the impact of the addition of the proposed new transmission line.

P3-NP-NLH-21 Reference: Page 32

In what year will the island load require the full import of 475 MW in the event of a loss of the HVdc link between Labrador and the Island?

P3-NP-NLH-22 Reference: Page 32

The Holyrood Thermal Generating Station is currently projected to be available for generation through 2020. Will the Holyrood Thermal

Generating Station be available to provide active power (MW) in the event of the loss of the HVdc link between Labrador and the Island for the years up to and including 2020?

P3-NP-NLH -23 8
Reference: Page 40

Please provide the calculation of Interest and Escalation included in the Budget Estimate.

RESPECTFULLY SUBMITTED at St. John's, Newfoundland and Labrador, this 17th day of October, 2011.

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