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December 23, 2015

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: Newfoundland and Labrador Hydro – March 4, 2015 Voltage Collapse – Final  
Written Submissions**

**A. General**

In its letter of November 20, 2015 setting December 23, 2015 as the deadline for final written submissions on the March 4, 2015 Voltage Collapse.

This letter contains Newfoundland Power's final written submissions.

**B. Evidence**

It is Newfoundland Power's submission that the assessment performed by the Board's consultant, The Liberty Consulting Group ("Liberty") into the matter was thorough. In addition, the conclusions drawn by Liberty appear generally sound to Newfoundland Power.

The March 4, 2015 Voltage Collapse commenced at 0714. Approximately 83,000 customers of Newfoundland Power were affected. Rotating power outages commenced at 0805 and continued through 1030. Service was not restored to all customers until about 1230.

In its October 22, 2015 *Review of the Newfoundland and Labrador Hydro March 4, 2015 Voltage Collapse*, (the "Liberty Report") Liberty identified the primary root cause of the voltage collapse to be the current operating culture at Newfoundland and Labrador Hydro ("Hydro"). In describing the root cause, Liberty observed:

**Newfoundland Power Inc.**

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“Liberty developed concerns about Hydro’s operating culture early in its review of the January 2014 events. Initial conversations with Hydro personnel disclosed that Hydro did not view the need to shed load during the supply shortage as a particularly unusual event. Operators felt that they remained in sufficient control of the system, and did not declare an emergency. Liberty’s experience indicates the need to resort to rotating outages to comprise an exceedingly rare (once-in-a-career) event. Many system operators never experience it. Further, when events begin to require special measures, caution dictates concern and a special preparedness for identifying next contingencies that might take major sectors of or even the whole system down. Hydro’s approach does not sufficiently consider such possibilities, because the ability to shed even more load remains as the primary response.” (see page 5).

“The arrival of the LIL [Labrador-Island Transmission Link] in a few years will increase the stakes substantially. If managed properly, reliability should improve. But new operating challenges will arise from a massive source of supply from a single off-island source. Both now, and even more so in the near future, Hydro needs to enhance its operating culture and associated practices to assure customers that this new operating environment will be managed responsibly.” (see page 6).

The Liberty Report contained 5 specific recommendations to improve the operating culture surrounding reliability at Hydro.

Nalcor’s former Vice President, Newfoundland and Labrador Hydro has indicated that he believes that there is a “...very strong focus on reliability...” at Hydro but there is “...no doubt a lot of room here for us to improve that type of focus...” (see transcript, *Hydro 2013 General Rate Application*, October 29, 2015, page 95, line 22 to page 99, line 6).

In a letter to the Board on November 17, 2015, Hydro indicated that it was taking the Liberty Report “under advisement” and it intended to “continue to move forward with its work to improve reliability for customers.” (see Hydro letter of November 17, 2015).

The evidence before the Board is clear that severe failures on Hydro’s electrical system caused outages which had dramatic customer impacts in each of the last 2 winter seasons. The evidence is equally clear that Hydro could improve its reliability focus.

**C. Newfoundland Power Submission**

Based upon the evidence disclosed in the Board's review of the March 4, 2015 Voltage Collapse, the Board should conclude that:

1. Improvements in Hydro's operating culture can have positive impacts on the reliability of service provided to customers on the Island Interconnected system;
2. Hydro should take specific steps to improve its operating culture vis a vis its reliability focus;
3. The steps taken by Hydro should respond fully to the 5 recommendations contained in the Liberty Report; and
4. Hydro should report to the Board on the specific steps planned and update the Board on a regular basis on progress made.

**D. Concluding**

We trust that the foregoing is helpful to the Board.

If you have any questions, please feel free to contact the Company.

Yours very truly,



Peter Alteen, Q.C.  
Vice President,  
Regulation & Planning

Enclosures

c. Geoffrey Young  
Newfoundland and Labrador Hydro

Thomas Johnson, Q.C.  
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Paul Coxworthy  
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Roberta Frampton Benefiel  
Grand Riverkeeper Labrador, Inc.