NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES
120 Torbay Road, P.O. Box 21040, St. John's, Newfoundland and Labrador, Canada, A1A 5B2

E-mail: gyoung@nlh.nl.ca

2014-01-17

Mr. Geoffrey Young
Newfoundland and Labrador Hydro
P.O. Box 12400
St. John's, NL A1B 4K7

Dear Sirs:

Re: Newfoundland and Labrador Hydro - the Board's Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnected System - Requests for Information

Enclosed are Information Requests PUB-NLH-1 to PUB-NLH-46 regarding the above-noted matter. The deadline for filing the responses to the Requests for Information is Monday, January 27, 2014.

If you have any questions, please do not hesitate to contact the Board's Legal Counsel, Ms. Jacqui Glynn, via jgylnn@pub.nl.ca or (709) 726-6781.

Yours truly,

Bobbi Sheppard

Bobbi Sheppard
Assistant Board Secretary

Encl.

IN THE MATTER OF
the *Electrical Power Control Act, 1994*,
SNL 1994, Chapter E-5.1 (the "*EPCA*")
and the *Public Utilities Act,* RSNL 1990,
Chapter P-47 (the "*Act*"), as amended; and

IN THE MATTER of the Board's Investigation
and Hearing into Supply Issues and Power Outages
on the Island Interconnected System.

PUBLIC UTILITIES BOARD
REQUESTS FOR INFORMATION

PUB-NLH-1 to PUB-NLH-46

Issued: January 17, 2014

PUB-NLH-1 Set out in a table the Island Interconnected system capacity used by Hydro for planning purposes, showing both capacity owned and purchased by Hydro and by others and the total system capacity available to supply customers on each of December 1, 2013, December 29, 2013, January 4, 2014 (after system events at Sunnyside Terminal Station) and January 15, 2014 and the system peak load on each day.

PUB-NLH-2 State the day, month and year Hydro became aware that it could have difficulty in supplying the required generation to meet the forecast load for December 2013 and the winter of 2014? Provide details, including its understanding of the anticipated deficit and the action, immediate and long-term, taken when it became aware of a potential inability to meet customers' load requirements.

PUB-NLH-3 How many times in the period 2004 to 2013 has Hydro been unable to supply the load of the Island Interconnected system due to the unavailability of generation capacity, transmission capacity and terminal station capacity? List each time and identify whether the cause was due to generation or transmission or terminal station capacity problems, weather conditions, planned maintenance, equipment failure or other conditions.

PUB-NLH-4 Provide the number of under frequency trips on the Island Interconnected system each year from 2004 to 2013, inclusive.

PUB-NLH-5 Provide the number and duration of unplanned outages on the Island Interconnected system each year from 2004 to 2013, inclusive, that resulted in Hydro's inability to supply customer load.

PUB-NLH-6 Provide the number, planned duration and actual duration of planned outages each year from 2004 to 2013, inclusive, that resulted in customer outages on the bulk Island Interconnected system that is, not including rural systems.

PUB-NLH-7 Provide a detailed explanation of the communication and coordination that occurs with Newfoundland Power regarding the Island Interconnected system demand and availability of generation, including Newfoundland Power's, to meet the system load.

PUB-NLH-8 How does Hydro determine the appropriate reserve to have available to meet the Island Interconnected system load?

PUB-NLH-9 What reserve was available on December 1, 2013, January 1, 2014 and January 5, 2014?

PUB-NLH-10 Has Hydro undertaken a review of its criteria to determine the appropriate reserve? If yes, outline the scope of the review and the date of completion. If not, why not?

PUB-NLH-11 Provide the forecast and actual peak demand for each month in the winter period in each year from 2004 to 2013 and the forecast each year for 2014 to 2017 for each month in the winter period.

PUB-NLH-12 Has Hydro revised its forecast of the winter peak for 2014 to 2017 since the events of December 2013 and January 2014? If yes, provide details of the change.

PUB-NLH-13 Hydro has stated that a new record system peak load was reached in December 2013. What factors contributed, in Hydro's opinion, to the record December 2013 peak and the January 2014 peak and explain if these factors could have been forecast?

PUB-NLH-14 When does Hydro prepare its forecast for the winter peak each year?

PUB-NLH-15 Has Hydro undertaken a review of its load forecasting methodology, given the unanticipated December 2013 and January 2014 peak loads? If yes, provide the scope of the review and the date of completion. If not, why not?

PUB-NLH-16 When did Hydro last undertake a review of its load forecasting methodology prior to January 2014? Provide details on the review that was completed.

PUB-NLH-17 What steps is Hydro taking to ensure that sufficient generation is available to meet the forecast winter peak for each of 2014 to 2017?

PUB-NLH-18 What are the options for Hydro to purchase or install additional generation to meet the winter peak demand for the period 2014 to 2017, inclusive, for the Island Interconnected system? Describe in detail each option and the steps Hydro has taken to consider each option.

PUB-NLH-19 Explain the circumstances that led to Hydro's decision to issue a conservation request to customers on January 2, 2014?

PUB-NLH-20 List the customer conservation initiatives that were initiated in December 2013 and January 2014 and describe whether these resulted in reductions in load, stating the reduction achieved each day.

PUB-NLH-21 In Hydro's opinion should customer conservation initiatives in addition to its regular conservation program be continued throughout the 2014 winter

period? If yes, explain what initiatives should be implemented. If no, why not?

PUB-NLH-22 Has Hydro reviewed its customer conservation program efforts of December 2013/early January 2014 and have any improvements been identified? If yes, describe the review and improvements identified. If no review has been initiated, why not?

PUB-NLH-23 Is Hydro of the opinion that its and Newfoundland Power's existing seasonal and time-of-use rates would assist in conservation initiatives and should customers be encouraged to avail of these rates?

PUB-NLH-24 Is Hydro of the opinion that the existing seasonal and time-of-use rates should be reviewed to determine changes to encourage more conservation? If yes, describe the process for such review. If not, why not?

PUB-NLH-25 Provide a detailed explanation of the coordination between Hydro and Newfoundland Power that occurred relating to the rotating power outages from January 2, 2014 to January 8, 2014, including the process used to determine what customers would be affected each time, the amount of notice to Newfoundland Power before outages were implemented, and the communication process with Hydro's customers and with Newfoundland Power about the outages.

PUB-NLH-26 Did Hydro receive complaints from customers about the rotating outage process? If yes, how many were reviewed and what were the nature of the complaints?

PUB-NLH-27 Is Hydro undertaking a review of the rotating outage process used in December 2013 and January 2014? If yes, identify the scope of the review and anticipated date of completion. If not, why not?

PUB-NLH-28 Is it possible to give affected customers in an area advance notice of a rotating power outage that will affect that area? If yes, how much notice can be given? If not, why not?

PUB-NLH-29 What criteria is used by Hydro to determine where and when there will be a rotating power outage? Include in the answer whether any priority is given to any particular class of customer, such as hospitals, personal care homes and retail malls.

PUB-NLH-30 Provide a detailed explanation of the operational plans followed prior to January 1, 2014 that Hydro implemented when a severe weather event was forecast or there was a system problem affecting Hydro's ability to meet system load. In the response identify the changes from routine operations with respect to the deployment of workers, operation of units such as gas

turbines, changes in equipment operations and any other change implemented from routine operations.

PUB-NLH-31 Has Hydro undertaken a review of its operational plans implemented in December 2013 and January 2014 to deal with severe storm forecasts and system problems to identify any necessary improvements? If not, why not? If yes, have any improvements been identified to date?

PUB-NLH-32 Provide a detailed explanation of Hydro's emergency preparedness plan if different than the plan described in PUB-NLH-30.

PUB-NLH-33 Provide details of Hydro's Generation Shortage Protocol. Has Hydro undertaken a review of this protocol? If yes, when will it be completed? If not, why not?

PUB-NLH-34 List all generation and transmission equipment that was not available for operations on December 1, 2013, January 1, 2014, January 5, 2014 and on January 8, 2014 and why such was not available. Include in the answer the status of each on January 15, 2014.

PUB-NLH-35 Provide a detailed explanation of Hydro's annual maintenance planning. In the reply include whether Hydro normally plans to have all generation units available by a set date for winter load demand and, if so, what is that date.

PUB-NLH-36 Why were all of Hydro's generating units not available for operations by December 15, 2013?

PUB-NLH-37 Has Hydro identified all critical spares for key generation, transmission, terminal station and other equipment and are such spares currently available in the Province? When was the determination and availability of such spares last reviewed?

PUB-NLH-38 Has Hydro initiated any change in its approach to the identification and purchase of critical spares in the last five years, given the age of Hydro's infrastructure? In the answer, describe in detail any specific action taken with respect to the Holyrood Thermal Generating Station.

PUB-NLH-39 What changes has Hydro implemented in its asset management practices in the past five years to address the concerns it has expressed about its aging plant and equipment, particularly at the Holyrood Thermal Generating Station?

PUB-NLH-40 How has Hydro changed its approach to maintenance and operations of the Holyrood Thermal Generating Station since the decision was made to proceed with the Muskrat Falls Project?

PUB-NLH-41 List all investigations/analyses undertaken or to be undertaken by Hydro's internal or external resources on the power outages and system events that occurred in December 2013 and in January 2014. Include in the answer the purpose, scope, anticipated date of completion of the analysis/investigation and the party completing each.

PUB-NLH-42 Describe the process, if any, Hydro has put in place to oversee and coordinate the investigations on the power outages and system events that occurred in December 2013 and January 2014.

PUB-NLH-43 What lessons and required changes has Hydro identified to date from its experience in December 2013 and January 2014 including those relating to system operations, equipment maintenance, emergency preparedness, coordination with Newfoundland Power, communication with customers, required conservation initiatives, its planning process and its load forecasting process? Include in the answer whether Hydro has yet started to implement any initiative and the status of any identified lessons and required changes.

PUB-NLH-44 Has the increase in non-dispatchable generation affected Hydro's ability to meet its peak load or affected operation of the system to meet peak load? If yes, explain how it has.

PUB-NLH-45 Explain in detail whether the causes of the system outages in January 2013 were similar to or related to the outages in January 2014?

PUB-NLH-46 Did Hydro implement any lessons learned from the outages in January 2013 that may have assisted with system events in December 2013 and January 2014? If yes, provide details of the action implemented.

DATED at St. John's, Newfoundland this 17th day of January 2014.

BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

Per Bobbi Sheppard
Bobbi Sheppard
Assistant Board Secretary