

**SUBMISSION TO PRE-HEARING CONFERENCE OF PUBLIC UTILITIES BOARD
FEBRUARY 5, 2014**

Ron Penney and David Vardy

We wrote the Board on January 8, 2014 identifying specific questions for the Board to address in its inquiry and hearing into supply issues and power outages. These questions are as follows:

1. Why weren't the two gas tribunes and the Holyrood plant in a state of readiness for the winter?
2. Has the Holyrood plant been properly maintained? If not why not?
3. Will the Holyrood plant be required as a backup when Muskrat Falls is commissioned, to ensure reliability of the system, particularly for Eastern Newfoundland?
4. Is the third transmission line from Bay D'Espoir to the Avalon required for reliability purposes and would it have mitigated or eliminated the outages?
5. What action has been taken to arrange for emergency power supply from Nova Scotia and other sources on the Mainland?
6. Has NLH adopted the proposed reliability standard recommended by MHI or will they rely upon rotating outages, combined with emergency power from other sources, for power supplied from Muskrat Falls
7. Have the other generation assets and transmission and ancillary facilities been properly maintained?
8. When was Hydro aware of the potential problems for this winter and what steps could have been taken in the short term to alleviate what has occurred?
9. What measures should be undertaken to ensure that an adequate and reliable supply of power is available?
10. In the event of further energy shortfalls, how can power be rotated in an equitable and transparent manner? Would improvements in the transmission system allow for improved sharing of available energy throughout the island?
11. How can energy conservation and greater efficiency reduce the likelihood of future power outages? Would time of day pricing reduce peak demand?

The corporate focus of Nalcor Energy upon Muskrat Falls should not lead to a failure to maintain vital facilities in good working order. The failure of multiple generating units in a short time period is an indication that Nalcor and its subsidiary, Newfoundland and Labrador Hydro (NLH), have not succeeded in balancing the short and medium term reliability requirements of ratepayers with its long term planning. Sadly it has led to reports that our system is operating with the outages and blackouts one would expect in a third world country. Accordingly, we add the following to the list:

12. How much time does the CEO of Hydro spend on running Hydro? Is that time sufficient to provide proper oversight of Hydro and did the divided responsibilities of the CEO contribute to the problems experience by Hydro? Should Hydro have a full time CEO similar to the CEO of Newfoundland Power, whose sole responsibility is to manage that company?

We will focus today on the scope of the hearing and the period of time it should encompass. We will argue that the period covered should be long term, not limited to the next three or four years. The Board should examine reliability issues from both a short and long term perspective, recognizing that the capital assets of the utilities are long term investments designed to provide a reliable supply of power both in the short term and the long. The power policy requires that they be managed so as to *result in power being delivered to consumers in the province at the lowest possible cost consistent with reliable service* (Electrical Power Control Act, section 3b (ii))

While the Board's jurisdiction and mandate with respect to the approval of the Muskrat Falls project were removed by an Order in Council, the Board continues to have jurisdiction when it comes to reliability, both prior to interconnection and after. Nalcor intends to continue using Holyrood as a generating plant after interconnection, up to 2021, which is another seven years. We maintain that the Holyrood thermal plant will continue to be needed as back up on the Avalon beyond 2021. Whether one takes a short or longer term perspective the generating and transmission assets must be maintained at a high standard of reliability and not be allowed to become unreliable.

We are pleased that Newfoundland Power takes a similar view with respect to reliability subsequent to the interconnection and has raised this in their list of issues. In their issue number five they ask:

What measures are required to ensure reliability and security of power supply to customers on the Island Interconnected System, including Newfoundland Power and its customers, after the Labrador in-feed and Maritime link become operational?

We are asking the Board to go beyond the present short-term problem and examine the reliability issues both before and after interconnection of the Island with Labrador. We note that many of the questions posed to NLH and NP deal with the short term, up to 2017. We believe a longer perspective is needed.

We understand that after interconnection we will be required to meet higher reliability standards which are established on a multi-jurisdiction continental basis. Are we going to meet these standards? Are our emergency reserves sufficient to meet the new standard or do we need to re-examine our generation reserve standard, based on Loss of Load Hours (LOLH)? The standard that has been established is "that the Island Interconnected System should have sufficient generating capacity to satisfy a Loss of Load Hours expectation target of not more than 2.8 hours per year." (Nalcor submission to PUB November 2012, page 30).

Most utilities connected to the North American grid are members of a Regional Reliability Organization. All Regional Reliability Organizations in North America are under the jurisdiction of the North American Electric Reliability Corporation (NERC). NERC planning standards require each Regional Reliability Organization to conduct assessments of its resource and transmission adequacy. Consequently, many Regional Reliability Organizations have adopted an industry planning standard for generation reserve margins based on a loss of load duration, on a probabilistic basis, of one day every 10 years. This

typically results in capacity reserve margins in the range of 15-20 percent, depending on the region. Canadian utilities/system operators that have interconnections with US counterparts are members of Regional Reliability Organizations, and as such, must follow the region's generation adequacy criteria, as a minimum. The Regional Reliability Organization criterion of one day in 10 years is more stringent than NLH's LOLH of 2.8 hours per year which equates to about one day in every five years. (Nalcor submission to PUB, November 2012, page 31).

The Board has a responsibility to ensure that we are prepared as a minimum to withstand the loss of the single largest unit in our system, the single largest contingency. How is the largest unit in the system defined? Should it be defined in terms of the largest turbine at Muskrat Falls or all four together? Should it be defined in terms of the loss of one of the three cables across the Strait of Belle Isle? The first definition calls for a reserve of 824 MW, while the second equates to 450 MW, quite a large difference in capacity and in overall cost of maintaining reserves.

We believe the Board needs to revisit the discussion of transmission line reliability that occurred during the Muskrat Falls reference hearing. In our letter of January 8, 2014 we referred to the MHI report and their recommendation for a higher standard of design, particularly for alpine regions. Will our transmission lines meet the North American standard?

Nalcor has indicated that power from Nova Scotia will flow east to Newfoundland in the event of an emergency requirement on the Island. We noted in our letter that

Exhibit 106, submitted by Nalcor to the PUB as part of the Muskrat Falls hearings, reveals that emergency energy from Nova Scotia would be required in the event that the Labrador Interconnected Link were out of service for long periods. Despite this requirement there has been, to the knowledge of the undersigned, no firm contract between Emera and Nalcor for the provision of such emergency power. What action has been taken to arrange for such emergency power supply from sources on the Mainland?

In a recent letter to the Telegram Nalcor VP Gilbert Bennett refers to the *Interconnection Operators Agreement* which has a section 5.2 dealing with emergency energy, which states:

Each party shall, to the maximum extent it deems consistent with the safe and proper operation of its respective transmission system provide "Emergency Energy" to the other party in accordance with the provisions of Schedules A3 and C9.0."

The schedules are blank so we don't know what the section really means.

Emergency Energy is defined as

energy supplied from Operating Reserve of electrical generation available for sale in NL or NS or available from another Balancing Authority that may be provided in cases of sudden or unforeseen outages...". (page 3)

There is no obligation to provide emergency energy. It "may" be provided and then only if it is available.

So far as we know, Nalcor has not agreed to upgrade the transmission lines as recommended by Manitoba Hydro International and has instead accepted the risk that not so doing entails. That risk is outages of up to a month. If there is a failure of the Straits crossing, depending on the time of year, the outages could be much longer.

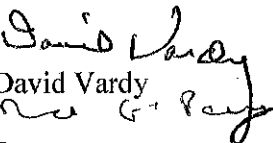
What assurances can possibly be given that the major loss of energy from Muskrat Falls can be replaced by Nova Scotia, when the likelihood is that a transmission failure will occur at a time of peak demand there, further exacerbated by the loss of Muskrat Falls energy to their system.

While we are not seeking intervener status we are requesting an opportunity to present a brief to the Board during the hearing. In some jurisdictions, such as Manitoba, the regulatory authority has the authority to provide for intervener funding. The Joint Environmental Panel had that power as well and did provide intervener funding. That is not the case here but we do believe that the Board should be empowered, through its legislation, to provide intervener funding, subject to appropriate policy guidelines, and thereby to encourage the direct participation of consumers and consumer groups.

We are pleased that the Board has chosen to convene this inquiry. However we believe it is vitally important that the scope of the hearing cover reliability of the system for at least the next 25 years and not the three to four year period suggested in the requests for information. We close with a quote from the NP issues list which supports this position, with respect to the scope of the inquiry, embracing both the short and long term:

It is necessary to understand the system configuration and system operations after the Labrador in-feed and Maritime Link become operational in order to optimize expenditures in a manner that results in least cost power over the long run.

Ronald Penney



David Vardy

Ratepayers

Newfoundland and Labrador