Questions and Answers

Maritime Link and Electricity Export Activity and Arrangement – Updated August 20, 2014

<u>July 2014</u>

Q1. Our commitments to Emera take three parts: "Nova Scotia block" of 980 GWh for 35 years, 240 GWh annually for five years of "supplemental energy" and between 1,200 GWh and 1,800 GWh of "market energy" for 24 years. There are penalties for both sides if sales are less than 1,200 GWh. So the three part deal leaves Nalcor with little flexibility even though these arrangements are characterized as essentially a "right of first refusal" to buy MF power in the spot market. There is little "unassigned production". Does Nalcor see any opportunity for the sale of firm Muskrat Falls power outside the Province at a rate which would recover full cost?

A1. The statements that "the three part deal leaves Nalcor with little flexibility" and that there is "little "unassigned production" are not correct and are misleading. Nalcor forecasts significant amounts of surplus energy, especially in the earlier years following Muskrat Falls in-service. Further, the Energy Access Agreement (EAA) gives Nalcor great flexibility in identifying the timing of potential energy deliveries and their associated prices, and Nova Scotia Power Inc. (NSPI) will only have the opportunity to purchase Newfoundland and Labrador's surplus energy if it is willing to match or exceed Nalcor's alternative markets.

The Muskrat Falls Project is being developed first and foremost for the benefit of Newfoundland and Labrador. Muskrat Falls will meet our province's growing electricity demand with clean, reliable energy for generations to come. Decades of studies and analyses of potential alternative energy sources have continually shown that this project is the lowest-cost way to meet our electricity needs.

The business case for developing Muskrat Falls and the Labrador-Island Link is the same today as the day it was announced in November 2010. The economics of the project have never relied upon any additional revenue being generated through the sale of energy from Muskrat Falls that is surplus to our needs. In an electrical system made up of predominately hydroelectric and wind generation sources, the cost of surplus energy that is made available through the variations in annual rainfalls and wind production comes at essentially no additional cost – the alternative is to let the water go over the dam. Surplus energy not needed in our province will be sold outside the province and profits realized will be for the benefit of Newfoundlanders and Labradorians for generations to come.

Q2. Does Nalcor believe that all four Atlantic Provinces should have a single reliability coordinator, with NL as a participant, or does Nalcor envisage the need for a separate "reliability coordinator" for Newfoundland and Labrador, within the ambit of the Northeast Power Coordinating Council (NPCC), under the North American Electric Reliability Corporation (NERC)?

A2. A single reliability coordinator for the four Atlantic Provinces is certainly an option but a separate "reliability coordinator" for Newfoundland and Labrador is also a possibility. Nalcor has not adopted a firm stand on this issue and is evaluating all options before making any final decisions.

Q3. Would participation in joint reliability coordination reduce the reserve requirements for the NL electrical system?

A3. Joint reliability coordination would not necessarily change reserve requirements. A model with separate reliability coordination would still offer the opportunity to share benefits across interconnections including contractual reserve sharing and emergency power supply arrangements.

Q4. Does Nalcor favour participation in an Atlantic region power pool, which would also serve as a reliability coordinator? If so, what are the advantages and disadvantages?

A4. With respect to the reliability advantages/disadvantages of an Atlantic region power pool, please see responses to questions 2 and 3 above.

The question regarding participation in an Atlantic power pool for dispatching energy is very broad and without context of how such a pool may operate, very difficult to specifically address. With this as context, Nalcor assumes the intent of the question is to explore whether or not Nalcor may be able to reap greater returns through participation in such a pool and such is the thrust of the following response.

Through the agreements with Emera Inc., Nalcor has secured transmission access to and through the Maritime Provinces that will enable export of surplus energy. The Maritime Link will connect the island of Newfoundland to Nova Scotia and to the North American transmission grid for the first time and is designed to transmit power to and from the Island of Newfoundland. This interconnection to the North American grid will provide access from the island of Newfoundland to markets in Atlantic Canada and New England allowing Nalcor to export energy not required in Newfoundland and Labrador to other markets throughout Atlantic Canada and New England, thereby returning revenue back to our province.

The additional Energy Access Agreement (EAA) signed in November 2013 between Nalcor and Emera's subsidiary Nova Scotia Power Inc. (NSPI) enables the sale of energy that is surplus to Newfoundland and Labrador's needs to Nova Scotia at market prices. Under the EAA, NSPI will be provided the opportunity to compete for Nalcor's surplus energy that is offered only when it is not required in Newfoundland and Labrador. The power sold will be at the best prices that Nalcor would have obtained if the power had been sold in markets in the United States. The EAA secures another market for Newfoundland and Labrador's surplus power and creates value for the people of the province.

Nalcor also has transmission access to and through Quebec and has been conducting transactions in Eastern Canada and the North East United States since 2009.

Finally, the hydroelectric reservoir systems in Newfoundland and Labrador enable Nalcor to manage its resources to further increase value from its energy export activities.

Combined, Muskrat Falls and the associated transmission projects, transmission agreements to and through the Maritimes, long-term transmission access through Quebec, and our ability to manage our hydroelectric resources has secured access to a diverse collection of export markets including Nova Scotia, New Brunswick, New England, Quebec, Ontario and New York and it is through this diversity that greatest value can likely be returned. Nalcor will be able to market and trade the province's excess electricity output in markets across Canada and the United States at the best possible prices, which will create value for the people of the province.

Q5. Contractually, does Nalcor have a priority to deliver the 167 MW to Emera, or to NLH in the event of a shortfall in island capacity?

A5. In the unlikely event that Muskrat Falls is not able to meet its commitments to all its customers, the priority curtailment will be to Muskrat Falls' non-firm customers first, and then its firm customers will be curtained on a pro rata basis.

Q6. Can Nalcor provide a status regarding the supply of backup power from Nova Scotia? In the 15 legal agreements between Nalcor and Emera, has the access and rate been agreed for this back up power?

A6. The addition of the Maritime Link between the island of Newfoundland and Nova Scotia will further enhance the reliability of our provincial electricity system. Following in-service, we will have the ability to import power from other markets if we require energy in an emergency. The Interconnection Operators Agreement established between Newfoundland and Labrador Hydro and Nova Scotia Power includes provisions for emergency assistance and emergency energy transactions and is designed for short-term capacity assistance while a longer-term arrangement from the market is made. If the need arose for longer-term capacity assistance, a more structured commercial arrangement in the market would be made. These arrangements are common practice between neighbouring utilities.

The final details of the Interconnection Operators Agreement will be negotiated prior to the in-service of the Maritime Link.

This agreement can be viewed in full on our website, at:
www.muskratfalls.nalcorenergy.com/newsroom/reports

April 2014

Q1. **Why did we commit energy to meet the needs of Nova Scotia at rates below full cost when the original rationale was to serve ratepayers in NL?**

A1. Nalcor's agreement with Emera for 20 per cent of the power from Muskrat Falls for 20 per cent of the cost has not changed. Through this arrangement Nalcor has secured transmission access to and through the Maritime Provinces that will enable export of surplus energy from Muskrat Falls. The additional Energy Access Agreement (EAA) secured in November 2013 enables the sale of energy that is surplus to our needs to Nova Scotia at market prices and is not directly tied to Muskrat Falls. Under the EAA, Nova Scotia Power will be provided the opportunity to compete for Nalcor's surplus energy that is offered only when it is not required in our province. The power sold will be at the best prices that Nalcor would have obtained if the power had been sold in markets in the US. Profits from surplus power will benefit Newfoundlanders and Labradorians.

Q2. **In the event of project delay, disruption of generation or transmission, how much will Nalcor have to pay Emera in damages?**

A2. There is no compensation associated with a delay. This is addressed in the Energy and Capacity Agreement also available on the project website. The commitment to provide energy to Nova Scotia starts with commissioning of the third generating unit at Muskrat Falls and continues for 35 years from that event. For disruptions of generation or transmission, replacement energy to make up for missed deliveries will be provided to Nova Scotia after the interruption has ended.

Q3. **Why did the province enshrine the monopoly power of Nalcor and limit free trade in electrical power, thereby contradicting the province's long standing position on free trade in electricity?**

A3. Bill 61 provided the certainty Nalcor required to achieve competitive financing terms for the project by demonstrating to the federal government and lenders that there was a guaranteed customer (Hydro) and revenue stream to service the project debt. Open access on the provincial electricity grid is not impacted by Bill 61 and this Bill does not change Hydro's obligations to provide open access for interprovincial electricity transmission, as required by market rules and reciprocity obligations where Nalcor/Hydro operate. Franchise rights similar to those granted to Hydro in Bill 61 are common in other jurisdictions that have open transmission access.

<u>December 13, 2013</u>

Q1. Documents concerning the Maritime Link make reference to "Native Load". One of these references is contained in the recent Compliance Filing by NSPML to the UARB (page 11) and reads as follows:

• Nalcor will provide updated monthly forecasts of the volume of energy, both on-peak and off-peak, that Nalcor can make available to NS Power in each contract year.

• Such forecasts will indicate the amount of Nalcor-generated energy available in each contract year up to 1.8 TWh in excess of the requirements to meet NL Native Load and the Nova Scotia Block (subject to an exception for new generation built for specified new export load and pre-existing arrangements with Hydro Quebec.)

Does Native Load include the requirements of the mining industry in Labrador?

A1. Yes. The definition of "Native Load" does include the requirements of the mining industry in Labrador.

Q2. What is intended by the "exception for new generation built for specified new export load"?

A2. The exception for "New Generation Development Energy" is brought together in the definitions of "Available Energy" and "New Generation Development Energy". This exception is specified to insure that the obligations contained within the Energy Access Agreement do not impede further development of the province's resources that may include contracts for supply to customers outside of Newfoundland and Labrador.

Q3. The commitment of 1.2 TWh to 1.8 TWh, combined with the 0.98 TWh Nova Scotia Block plus (for the first five years) 0.24 TWh of supplemental energy represents potentially more than 50% of the energy (both firm and average) from Muskrat Falls. Is this consistent with Nalcor's stated objective of developing Muskrat Falls principally for the benefit of NL ratepayers?

A3. Yes, the development of Muskrat Falls is for the benefit of ratepayers in our province and for the benefit of all Newfoundlanders and Labradorians. Muskrat Falls and the transmission link between Labrador and the island is the lowest-cost option to meet the electricity demands in our province. Once in service, Muskrat Falls will also provide long-term stable electricity rates for generations of Newfoundlanders and Labradorians.

The Nova Scotia Block (including the supplemental energy) is associated with the Muskrat Falls generating station and the transmission projects and comes from the 20 for 20 principle. Through this arrangement Nalcor has secured transmission access to and through the Maritime Provinces.

The commitments under the Energy Access Agreement (EAA) are not associated with any one project, but rather are tied to the surplus generation production that comes from Nalcor's entire hydroelectric generation fleet in the province. While today we manage hydrology fluctuations by varying production at Holyrood, once the island is interconnected and Holyrood is shut down, we will manage these hydrology fluctuations through export activity.

Under the EAA, Nova Scotia Power Inc. will be provided the opportunity to compete for Nalcor's surplus energy that is offered only when it is not required by the electricity consumers in our province. The power sold will be at prices that Nalcor would have obtained if the power had been sold in markets in the United States. The EAA has secured yet another market for our surplus power and creates value for the people of Newfoundland and Labrador.

Q4. What penalties will Nalcor face if it is unable to meet the target of minimum average energy sales to NSPML of 1.2 TWH? What is the first review date for measuring success in achieving this target? Or will success be measured only at the end of 24 years?

A4. Nalcor's base commitment under the Energy Access Agreement is to forecast and bid its "Available Energy", up to 1.8 terawatt hours per year (TWh). This commitment to forecast and bid "Available Energy" combined with more than 60 years of hydrological data support the target of minimum average annual energy sales to Nova Scotia Power Maritime Link (NSPML) of 1.2 TWh. In other words, the science gave Nalcor and Emera the confidence to provide the 1.2 TWh "Commitment". While the science supports that the "Commitment" will be met, in the theoretical event that there could be a "Variance", Emera would be responsible for the first 300 gigawatt hours (GWh) of such "Variance". Nalcor does not see any risk of exposure to penalties.

Article 7(a) of the Energy Access Agreement speaks to annual reports on Nalcor's ability to deliver the "Commitment". This runs throughout the term of the agreement.