



Annual General Meeting

March 24, 2016

Questions & Answers

Below are responses to additional questions submitted prior to or directly following Nalcor's Annual General Meeting on March 24, 2016. For a video recording of the AGM Question-and-Answer session, please see <http://www.nalcorenergy.com/agm-2016.asp>.

Q1. Nalcor leases the Bull Arm site for \$1 per year- from the NL Gov - lease expires Mar 2022 -Please provide by year the dividends rec'd by Nalcor for the Bull Arm site?

A1. Dividends paid to Nalcor from Bull Arm Fabrication commenced in 2013.

(\$millions)	2013	2014	2015	Total
Dividends	26.8	16.3	16.7	59.8

Q2. Nalcor vp Jim Keating stated on Jan 18 2016 that "Hebron oil can be modelled assuming a 3-7%discount to Brent, The assumption holds over a range of prices ". The return of Iranian heavy crude oil to world markets has decreased the prices for heavy crudes. What is the Hebron heavy oil discount to Brent in the current oil market?

A2. The estimate shared in January has not changed. Hebron first oil is not expected until late 2017, so market pricing is not available. Based on preliminary views of Hebron crude assays, estimates for the discount to Dated Brent for Hebron crude ranges between 3-7%. Heavy crudes are currently selling at a discount to Dated Brent due to a number of factors, one of which does include abundant supply. The discount assumption holds over a range of prices.

Q3. MF PUB Nalcor confidential exhibits not released-Can Nalcor now release CE -MF 1320- Estimates the firm generation potential of the MF development?

- A3.** The document referenced has not been released publically due to the commercial nature of the information contained in the document. The report provides information on the production profile for Muskrat Falls. If released publically it would place in the hands of our direct competitors and other market participants information that could compromise Nalcor's competitive position and thereby our ability to maximize the value of our export energy sales.

There have been several studies and reports completed on energy/hydraulic modeling. Here are links to the public information that has been posted on the PUB site. A July 1998 report done by Acres (Acres became Hatch) and another done in 2011. There is also a reference on the PUB site under the Muskrat Falls review listing of confidential exhibits not released. These are CE 21 - MF 1320 - Estimate the Firm Generation Potential of the Muskrat Falls Development - June 2011 and CE 26 - MF 1330 - Hydraulic Modeling and Studies - 2010 Update (Report 6 - Muskrat Falls Regulation Study)

Here are the links to the 1998 and 2011 information released publically that references these reports:

[http://www.pub.nl.ca/applications/MuskratFalls2011/files/exhibits/abridged/CE-28\(R1\)-Public.pdf](http://www.pub.nl.ca/applications/MuskratFalls2011/files/exhibits/abridged/CE-28(R1)-Public.pdf)

[http://www.pub.nl.ca/applications/MuskratFalls2011/files/exhibits/abridged/CE-27\(R1\)-Public.pdf](http://www.pub.nl.ca/applications/MuskratFalls2011/files/exhibits/abridged/CE-27(R1)-Public.pdf)

In terms of where we are today, all of our feasibility work was refreshed during detailed engineering design, and our current modelling incorporates the final design specifications and parameters along with the final specifications for the turbines and water passages.

- Q4. Nalcor Aug 20 2014 states Jan -May -673 MW capacity available at Soldier's Pond- DG 3 assumed 830 MW: What is the impact of this 157MW capacity reduction (18.9% less from MF) on consumer power rates &MF cost per KWH?**
- a) Why did the capacity of MF -Jan -May @ Soldiers Pond decrease from DG 3 830MW to 673MW -157MW less on -Aug 20 2014 ?**
 - b) Jan to May includes the winter peak for power in NL. Will extra peaking capacity need to installed? If so what is the cost?**
 - c) If 673MW not (830 MW DG 3) 157MW less - 18.9%-less capacity what is the new incremental cost per kwh of MF power delivered to Soldiers Pond?**
 - d) What is the impact on consumer retail rates of the 157MW capacity reduction?**

- A4.** The LIL has a rating of 900 MW at Muskrat Falls. Of that 900 MW of capacity, the Nova Scotia Block equals approximately 167-168 MW.

The delivered power at Soldiers Pond equals 830 MW. Of the 830 MW delivered, approximately 158 MW is deemed NS block deliveries at Soldiers Pond leaving approximately 672 MW for NL Hydro use on the Island. This is no change in capacity and this is part of normal planning.

- Q5. NEM was set up Mar 24 2014 -- the loss for 2015 \$9.7M on revenue of \$10.2M--, 2014 -\$1.7M.**

a. Where was this marketing activity done before NEM?

A5a. Since 2009 this marketing activity has been reported in Nalcor Energy's consolidated annual reports under the Energy Marketing business segment. Prior to the establishment of the Nalcor Energy Marketing Corporation (NEMC) legal entity in 2014, this activity was recorded in Newfoundland and Labrador Hydro's (Hydro) non-regulated business unit. Although NEMC was incorporated on March 24, 2014, the export market revenue and related expenses continued to be recorded in Hydro's non-regulated business unit until October 1, 2015. Effective October 1, 2015, NEMC entered into a power purchase agreement (PPA) with Hydro which allows for the purchase of available surplus Recapture electricity from Hydro for resale by NEMC in export markets.

b. Please provide the profit or loss for each of these prior 5 years before NEM?

A5b. Export market operations have been reported in the Energy Marketing business segment which is presented in Nalcor Energy's consolidated annual reports.

- From 2009 - 2011 the earnings in this segment were derived from the sale of Recapture to markets in eastern Canada and the northeastern United States.
- Since 2012, the revenue and earnings in this segment are derived primarily from sales of available Recapture electricity which is sold to markets in eastern Canada and the northeastern United States, as well as to the iron ore industry in Labrador. In addition, earnings are generated through the Menihek generating station.

The earnings reported for each year are below.

(In millions of CAD dollars)	2009	2010	2011	2012	2013
Energy Marketing Segment	34.0	48.9	43.3	21.2	33.2

Q6. Re note 17 foreign exchange forward contracts & commodity swaps

a. There is a loss of \$8.9M on these contracts. Why? (on revenue \$10.2M for 2015).

A6a. On an annual basis, Nalcor's risk management team analyzes Energy Marketing's hedging strategy as a component of Nalcor's overall risk strategy. The hedging program is designed to provide an appropriate level of cash flow certainty relative to the budget and consistent with Nalcor's financial risk management program. The losses on these contracts are offset by the higher values realized on the underlying hedged items.

The total \$8.9M in question is comprised of the following:

- a realized loss of \$5.5M related to 2015 foreign exchange forward contracts recognized in net income due to the strengthening US dollar in 2015. This loss related to energy sales revenue of \$42.3 (January - September 2015) recorded in Hydro's legal entity and \$9.5M (October - December 2015) recorded in NEMC legal entity;
- an unrealized loss of \$2.1M related to the mark-to-market value of the 2016 commodity contracts entered into in December 2015; and
- an unrealized loss of \$1.3M, included in other comprehensive income, relating to the mark-to-market value of the 2016 foreign exchange forward contracts entered into in 2015. In accordance with hedge accounting, the gain or loss associated with a contract only impacts net income on settlement.

b. Is NEM still doing these contracts & swaps? If so, why?

A6b. On an annual basis, Nalcor's risk management team analyzes Energy Marketing's hedging strategy as a component of Nalcor's overall risk strategy. Since a portion of Energy Marketing's export market sales are substantially at US dollar energy rates and a portion of the sales also occur at market rates which fluctuate depending on various factors such as weather, there is an inherent revenue risk. Energy Marketing's hedging program is approved by the Board of Directors and is designed to provide an appropriate level of cash flow certainty relative to the budget and consistent with Nalcor's financial risk management program.

c. Please provide the gain or loss for the previous 5 years before NEM on those contracts & swaps?

A6c.

(In millions of CAD dollars)	2009	2010	2011	2012	2013
Gain (Loss) on FX/Commodity Contracts*	3.2	3.2	1.1	-	(0.8)

**Only includes impact to net income*

Q7. The new BDE TL can transmit (See Oct 04 2013 NLH reply) 176MW of existing hydro generation to the Avalon where it is needed. In a Sept 2011 report to PUB "the new 230 kv circuit significantly increases the tl capacity east of BDE and allows for improved efficiency in the operations of generators at Holyrood. This results in reduced fuel consumption. And in turn may reduce the potential for spills at hydro sites." Why has this BDE TL upgrade in capacity to allow an increase of 176MW in existing hydro generation to get to Avalon been delayed since 2011?

A7. The justification for the new high voltage 230kV transmission line (TL 267) is based on the long term benefit that an additional third transmission line to the Avalon provides in ensuring system stability when the Island system is connected to the North American grid via the Labrador Island Link(LIL) and the Maritime link (ML). If Muskrat Falls and LIL had not proceeded, TL 267 would still have been required to integrate additional new hydroelectric resources, such as Island Pond, Portland Creek, and Round Pond, in order to meet increasing customer demand. In either of these scenarios, the requirement for the line would have been in the 2017/18 timeframe.

While it is true that the earlier addition of TL 267 could have resulted in reduced fuel consumption at Holyrood and potentially reduced spill at hydroelectric facilities, the cost of building the line early outweighed the potential savings. It is not correct, however, to conclude that an additional 176 MW of existing hydroelectric generation could be used to displace production at Holyrood. While that production may not have been delivered at peak times, sufficient storage exists to deliver much of that production over time.

Newfoundland and Labrador Hydro originally included this project in its 2012 Capital Budget application filed in August 2011. However, the project was withdrawn. This was before the Muskrat Falls project was sanctioned by the provincial government. On April 30, 2014, Hydro filed a revised application for the approval to construct a 230kV transmission line between the Bay d'Espoir and Western Avalon terminal stations. With the sanction of Muskrat Falls, the requirement for the third line is based on a need to ensure the electrical stability of the Island Interconnected System once Muskrat Falls and LIL are in service.

The Board of Commissioners of Public Utilities (PUB) approved the project in December 2014.