

Date : 11/15/2011 8:19:09 PM

From : KONEill@nlh.nl.ca

To : "Power, Glenda" , "Maclean, Heather" , "Brown, Milly"

Subject : RE: Interview request from Mike Connors on PUB filing

Attachment : Response to PUB review\_NTV interview\_Nov 15.docx;ATT1187280.jpg;ATT1187281.jpg;

Today's interview with Ed went really well. Mike is not planning on airing it until later this week. He'll send me a note the day it will be aired.

Key Questions/topics:

PUB

\* Provide an overview of the information contained in the PUB submission.

\* What are the reasons for the delay in the submission of the report.

Vardy's report

\* Why not invite other partners to invest rather than the province incur all the debt

\* Why not focus more on conservation and demand side management to reduce demand

\* What are the drivers of demand. Are we being over optimistic in our population assumptions which will impact demand projections.

Here are the final notes prepared for Ed:



Karen O'Neill

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From: "Power, Glenda" <glendapower@gov.nl.ca>

To: "Maclean, Heather" <heathermaclean@gov.nl.ca>, <KONEill@nlh.nl.ca>

Cc: "Brown, Milly" <MillyBrown@gov.nl.ca>

Date: 11/15/2011 12:29 PM

Subject: RE: Interview request from Mike Connors on PUB filing

Thanks Karen and Heather.

G

**From:** Maclean, Heather

**Sent:** Tuesday, November 15, 2011 9:24 AM

**To:** 'KONEill@nlh.nl.ca'

**Cc:** Brown, Milly; Power, Glenda

**Subject:** RE: Interview request from Mike Connors on PUB filing

Karen - a few notes to add to your message points....

**We should develop Gull Island first, not Muskrat Falls; it's a better project.**

I agree with Dr. Vardy that, economically, and from a pure revenue basis, it would make more sense to develop Gull Island with its lower unit costs. The project has been continuously identified as one of the best undeveloped energy projects in North America. However...

1. The amount of power that would be produced from Gull Island is far in excess of the domestic need
2. The cost of bringing Gull Island power to the Island with be far in excess of the ratepayers ability to pay if we did not have export through Quebec

3. We do not have access through Quebec for the excess power and our ability to do so had been continuously blocked by Quebec. Dr. Vardy notes this in his paper.
4. Selling the power to Quebec at the border will limit our ability to access the North American marketplace and any opportunity to get the upside potential for many, many years (they won't want to do a short term deal). The situation would be the same as NL faced when it was looking for access through Quebec for Upper Churchill power in the 1960's.

#### **There is insufficient demand to warrant the development of Muskrat Falls**

In his paper Dr. Vardy notes that, based on the history of electricity growth in the province and, in particular, the 1990-2010 period when the province experienced decreases in industrial load, that there is no evidence to support the need for developing Muskrat Falls to meet domestic demand. He concludes that the real reason for developing the project is to replace the Holyrood thermal plant.

I would agree with Dr. Vardy that we have experienced a decrease in the industrial load in the province. However....

1. While population has remained somewhat static, our number of customers has continued to increase, particularly in the over 25 years of age category.
2. Electricity demand is driven by economic growth and the upturn in our economy has triggered continuous growth in the commercial sector. Every major town in this province has experienced retail and light commercial growth.
3. Residential and commercial demand growth has consumed the industrial demand that was lost. Our demand forecast includes this growth.
4. Our forecasting methodology does not re-profile historical demand. In this Dr. Vardy is incorrect. Our forecast uses economic projections provided by the Department of Finance.

I would also agree with Dr. Vardy that one of our drivers for doing Muskrat Falls is to replace the Holyrood thermal generating plant. If we do this....

1. Ratepayers will be protected from future increases in electricity rates due to high oil prices
2. Emissions of soot, GHG's and other by-products of burning oil will be removed from our environment, meeting the requests of the people living in the Holyrood area.
3. Decommissioning the Holyrood plant would also have a driver in developing Gull Island.
4. Dr. Vardy supports this approach in his paper noting that high current prices for Bunker C, combined with project increases in price and the high cost of refurbishing an old plant is a driver for developing Muskrat Falls.

#### **Dr. Vardy repeats the Environmental Assessment Panel recommendations that more independent studies are required before the project is approved to proceed.**

The environmental assessment panel was provided with a tremendous amount of information on the project, its economic and financial details, and the process of selecting Muskrat Falls over other alternatives. Nalcor answered all of the Panel's questions about the project even before it was approved to proceed to the Hearings. Unfortunately, the Panel chose to ignore all of this information and instead relied on the presentations that were made at the hearings by opponents to the project. These presentations, while raising questions about the alternatives to this project, did not provide any evidence to counter the information that Nalcor had provided to the Panel.

This situation is regrettable in that it has formed an opinion of the project that there was not a lot of work completed in making this decision. In fact, this same project was recommended for development in 1980. It was based on supporting engineering analysis by SNC Lavalin and a financial analysis from xxxx. This project has been extensively engineered and analyzed for more than 30 years. We currently have advanced project engineering and financial analysis to a level that has never been achieved for this project. The financial analysis necessary to advance this project has been completed and our studies show that this is the least cost project for the Island customers.

#### **The project will cause a large increase in the debt burden of the province.**

The Muskrat Falls project will require some debt financing while the remainder will come in the form of equity from the Shareholder.

The Debt will be raised by Nalcor and will be re-paid by Nalcor. The lending institutions will secure the debt with the project assets and the debt repayment will come from revenues earned from the sale of electricity. This situation is no different than your home mortgage. The banks hold the house as collateral and you make payments from the income earned at your job.

Because Nalcor is a crown corporation, its debt gets counted as provincial debt, however, this debt is balanced by the value of the project assets and the revenue that Nalcor earns.

#### **The Government of Canada should participate in the management of this project and declare the project as one of national interest under Section 92 of the Constitution.**

The Government of Canada has agreed to provide a loan guarantee for the project financing. The benefit of this guarantee will be

provided to the ratepayers who will see a benefit in reduced electricity rates due to the cheaper interest rates that the project will receive. Canada has not requested to have either management control or to take an equity interest in this project. In fact, Canada has a policy to divesting itself of Crown assets.

The option to engage Canada in forcing Quebec to permit access for Lower Churchill power does not exist; Canada has had this opportunity for many years and has chosen not to intervene. Therefore this is not a realistic option.

This is a project of national interest; it will provide benefits to all Canadians. We are grateful for the interest that the Prime Minister has shown in this project.

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**From:** KONEill@nlh.nl.ca [<mailto:KONEill@nlh.nl.ca>]  
**Sent:** Monday, November 14, 2011 4:13 PM  
**To:** Power, Glenda  
**Cc:** Bown, Charles W.; Maclean, Heather; Brown, Milly  
**Subject:** Re: Interview request from Mike Connors on PUB filing

Hi Glenda,

Here are the key themes that came from Vardy's report and our suggested responses. I haven't confirmed yet with Michael on the interview but I would like to call him back shortly to set something up for tomorrow if that's good with gov't?

Can you please let me know how to proceed?

Thanks  
Karen

#### **Key points that emerged from the Vardy report, with suggested responses**

**1. Muskrat Falls is the 2<sup>nd</sup> or 3<sup>rd</sup> best solution to meet the province's future energy needs.**

*Response:* The options and alternatives to Muskrat Falls that Mr. Vardy identified in his report were all close examined by Nalcor. Our mandate, as issued by the Government of NL, was to identify the least-cost option for clean, renewable power to meet the province's future electricity needs. Even combined, these alternatives fell short. Muskrat Falls is the least-cost option by \$1.2 billion (CPW) when compared to the isolated island alternative.

**2. We can avoid the debt of Muskrat Falls by using other means to carry the province to 2041, when Churchill Falls power comes back to Newfoundland and Labrador.**

*Response:* We detailed our review of this possibility in a Nalcor submission to Manitoba Hydro, as part of the current PUB review process. There are several uncertainties and risks associated with deferring our interconnection until that time:

- Security of supply and reliability – (1) Nalcor is not the sole shareholder of the Churchill Falls operation – what implications with this have 30 years from now? (2) We don't know the environmental and policy frameworks that will be in place in 30 years. (3) We don't know how long we can maintain reliable generation at Holyrood – will we be able to extend the life of that plant for 30 years?
- Ratepayers are going to pay much more for electricity in the interim (until 2041), because we will need to continue to use fuel to run the Holyrood plant. This will mean significant rate instability.
- Environmental compliance – continuing to use Holyrood means continued GHG emissions – will this be acceptable?

**3. Managing demand (and adding new small generation sources) could help the province extend its need for new sources of electricity.**

*Response:* Due to the growing economy, the province's demand for industrial and residential electricity is growing. We have new major industrial operations coming online, and we are seeing larger homes being built, and increased use of electricity with those and existing homes. Even if we manage to control demand somewhat, increased demand from new sources will drive up the overall need

for electricity. The province's economic outlook shows this.

**4. Muskrat Falls might be a good long-term source of electricity generation but in the short-term, it creates overcapacity and unnecessarily high debt.**

*Response:* This project is a long-term solution to meeting the province's energy needs; the greatest savings will come to the province's ratepayers after 2020. However, even in the short term, when compared with the cost of continued reliance on oil, Muskrat Falls presents a more economical solution for the province's ratepayers.

**5. Natural gas should be explored further as a potential new source of electricity for the island.**

*Response:* Nalcor's analysis of all alternatives, including natural gas, is reviewed in detail in our submission to the PUB review. It is our view that "landed" Grand Banks natural gas is not a viable option to meet the island's electricity needs. The most important reason is that our domestic market is too small to absorb the considerable project risks, capital investment and operating costs of a Grand Banks natural development.

The same is true for LNG. This is a complex issue, with much consideration given to how LNG financial markets work, but in short, in order to consider LNG as a viable alternative source of electrical generation for this province, as a utility Nalcor must be able to enter into long term supply arrangements with global providers. Our need is simply too small on the global stage for us to secure a favourable pricing arrangement.



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 To: <KONeill@nlh.nl.ca>  
 Cc: "Macleod, Heather" <heathermacleod@gov.nl.ca>, "Brown, Milly" <MillyBrown@gov.nl.ca>, "Bown, Charles W." <cbown@gov.nl.ca>  
 Date: 11/14/2011 12:18 PM  
 Subject: Re: Interview request from Mike Connors on PUB filing

What are your messages re Vardy report?

G

Sent from my iPad

On Nov 14, 2011, at 12:15 PM, "[KONeill@nlh.nl.ca](mailto:KONeill@nlh.nl.ca)" <[KONeill@nlh.nl.ca](mailto:KONeill@nlh.nl.ca)> wrote:

Hi All,

Mike Connors is looking to do an interview with Ed on our PUB filing, what the next steps are in the process with the PUB and also ask if we have any comment on Dave Vardy's Harris centre report.

I'll probably set something up for tomorrow afternoon (for tomorrow night's news).

Ok to proceed and book?

Thanks  
 Karen

<ATT1000069.jpg> Karen O'Neill  
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## **Key Messages - PUB Submission and Process November 15, 2011**

### **Nalcor's PUB Submission**

- In June, the Government asked the Public Utilities Board to provide a supplemental review of the process used to determine that the Muskrat Falls and Labrador Island Link Projects represent the least cost option for the long-term supply of power to Island electricity customers.
- On Thursday, Nov. 10, Nalcor submitted a 250 page report, plus exhibits which summarizes the process Nalcor used to select the Interconnected Island alternative (Muskrat Falls) as the least cost source of power generation for Island rate payers.
- Nalcor has reviewed and presented in detail the system planning processes used to identify the long term, least cost solution for the continued supply of reliable power and energy for the island and presented it in our submission to the PUB.
- Decades of research, studies, analysis, consultant's reports, in addition to Hydro's expertise in forecasting, system planning and operation were drawn upon to compile this comprehensive submission.
- Our submission also explains how Nalcor will proceed with constructing the Muskrat Falls project, as well as provides an overview of schedule, costs and risk management.
- All this information is posted on both Nalcor's and the PUB website.
- The intent of the report is to demonstrate to the PUB that:
  - Nalcor has a responsibility to provide least cost power
  - there is a clear need for additional power generation to meet demand in our province
  - Nalcor did a thorough and appropriate analysis of supply alternatives
  - the decision to proceed with the Muskrat Falls development was in the best interests of our customers
  - the project will provide our shareholder with an appropriate return on their investment.

**Why was there a delay in submitting this report to the PUB?**

- This is a massive project with decades of research and analysis completed on both the Lower Churchill Project but also years of system planning and forecasting data. Compiling all this information into one comprehensive document that clearly and concisely explains the process taken to determine that Muskrat Falls is the least-cost option of meet out province's energy needs took time to get it right.

**Messages regarding delays with submitting information to the PUB**

- Nalcor has been working diligently to deliver this information in a timely manner. Since the process began, we've received almost 300 requests for information from the PUB, MHI and the Consumer Advocate. Some of these requests require significant work and analysis. To date, we've responded to 206 requests and we've committed to having the remaining 91 requested completed by Nov. 24.
- Nalcor acknowledges and respect the Board's need to have a complete record of information in a timely manner. We also accept responsibility for any delays in meeting the Board's expectations for receiving the requested information.
- Nalcor respects the Board's responsibility and oversight on this process and we are committed to ensuring we keep the lines of communication with the Board open.

**PUB Review Process:**

To date, the following outlines the RFI submissions:

- Total RFI to date from MHI, PUB and Consumer Advocate **297**
- Total RFI submitted by Nalcor (as of end of day Nov. 15) **206**
- Total RFI's remaining **91**
- There are 60 exhibits released to the PUB and MHI which were confidential. Nalcor is reviewing these exhibits and has currently released 19 confidential exhibits publically.
- Nalcor has committed to completing all remaining submissions by November 24.

## Key Messages - Dave Vardy's Report November 15, 2011

The first three comments made by Vardy is what Mike Connors will ask you about. Several other key points emerged. Here are our suggested responses:

### 1. Vardy's Comment: We should develop Gull Island first, not Muskrat Falls; it's a better project.

**Our Response:** I agree with Dr. Vardy that, economically, and from a pure revenue basis, it would make more sense to develop Gull Island with its lower unit costs. The project has been continuously identified as one of the best undeveloped energy projects in North America.

However...

1. The amount of power that would be produced from Gull Island is far in excess of the domestic need.
2. The cost of bringing Gull Island power to the Island with be far in excess of the ratepayers ability to pay if we did not have export through Quebec.
3. We do not have access through Quebec for the excess power and our ability to do so had been continuously blocked by Quebec. Dr. Vardy notes this in his paper.
4. Selling the power to Quebec at the border will limit our ability to access the North American marketplace and any opportunity to get the upside potential for many, many years (they won't want to do a short term deal). The situation would the same as NL faced when it was looking for access through Quebec for Upper Churchill power in the 1960's.

### 2. Vardy's Comment: Muskrat Falls is the 2<sup>nd</sup> or 3<sup>rd</sup> best solution to meet the province's future energy needs.

**Our Response:** The options and alternatives to Muskrat Falls that Dr. Vardy identified in his report were all closely examined by Nalcor and we've detailed this analysis in our PUB submission. Muskrat Falls is the least-cost option by \$2.2 billion (CPW) when compared to the isolated island alternative.



- 3. Vardy's Comment: This is an expensive project and will drive up the debt of the province. Look for and encourage more private sector participation in the project.**

**Nalcor's Response:** The projects will not impact Net Debt for the province because the province will have an income producing asset (investment in Nalcor) to offset the required debt unlike other provincial borrowing to fund general services. Further this income producing asset will continue to provide power for the province and revenue to the treasury long after the debt is paid off. Compare it to having a mortgage. We can either continue to pay rent (e.g., fuel prices) or for a lower-cost, can buy a house and have an asset of value (Muskrat Falls).

Our strategic partner - Emera is investing \$1.2 billion in the Maritime Link and providing Nalcor with transmission access to additional markets in the Maritimes and northeastern United States to sell our surplus power. In exchange, Emera will receive 20% of Muskrat Fall's power to meet Nova Scotia's clean energy requirements. Emera is also investing \$600 million in exchange for 29% ownership of the Labrador-Island Link.

In addition, the Federal Loan Guarantee will further lower the interest rate for borrowing which will provide estimated savings to Island electricity consumers of approximately 6%. This project is a long-term solution to meeting the province's energy needs; the greatest savings will come to the province's ratepayers after 2020.

- 4. Vardy's Comment: Muskrat Falls might be a good long-term source of electricity generation but in the short-term, it creates overcapacity and unnecessarily high debt.**

**Nalcor's Response:** This project is a long-term solution to meeting the province's energy needs; the greatest savings will come to the province's ratepayers after 2020. However, even in the short term, when compared with the cost of continued reliance on oil, Muskrat Falls presents a more economical solution for the province's ratepayers.

- 5. Vardy's Comment: Muskrat Falls might be a good long-term source of electricity generation but in the short-term, it creates overcapacity and unnecessarily high debt.**

**Nalcor's Response:** This project is a long-term solution to meeting the province's energy needs; the greatest savings will come to the province's ratepayers after 2020. However, even in the short term, when compared with the cost of continued reliance on oil, Muskrat Falls presents a more economical solution for the province's ratepayers.

6. **Vardy's Comment: We can avoid the debt of Muskrat Falls by using other means to carry the province to 2041, when Churchill Falls power comes back to Newfoundland and Labrador.**

**Nalcor's Response:** In our analysis of interconnection alternatives, Nalcor compared Muskrat Falls and a link to the island to deferral of the interconnection between Labrador and the island out to 2041 and then assessing Churchill Falls power.

There are several issues which resulted in Nalcor screening out this option:

- *Security of supply and reliability:*
  - (1) Nalcor is not the sole shareholder of the Churchill Falls operation therefore this is uncertainty around guaranteeing the availability of supply from Churchill Falls in 2041.
  - (2) We don't know how long we can maintain reliable generation at Holyrood – will we be able to extend the life of that plant for 30 years?
- *Cost to ratepayers:*
  - (1) Ratepayers are going to pay much more for electricity in the interim (until 2041), because we will need to continue to use fuel to run the Holyrood plant. This will mean significant rate instability.
- *Environmental compliance:*
  - (1) Continuing to use Holyrood means continued GHG emissions. Given the gov't of Canada's decision to introduce GHG emissions regulations for coal fired generation stations, Nalcor may be required to replace the Holyrood plant between now and 2041.

7. **Vardy's Comment: Managing demand (and adding new small generation sources) could help the province extend its need for new sources of electricity.**

**Nalcor's Response:** Due to the growing economy, the province's demand for industrial and residential electricity is growing. We have new major industrial operations coming online, and we are seeing larger homes being built, and increased use of electricity with those and existing homes. Even if we manage to control demand somewhat, increased demand from new sources will drive up the overall need for electricity. The province's economic outlook shows this.

8. **Vardy's Comment: Natural gas should be explored further as a potential new source of electricity for the island.**

**Nalcor's Response:** Nalcor's analysis of all alternatives, including natural gas, is reviewed in detail in our submission to the PUB review. It is our view that "landed" Grand Banks natural gas is not a viable option to meet the island's electricity needs. The most important reason is that our domestic market is too small to absorb the considerable project risks, capital investment and operating costs of a Grand Banks natural development.

The same is true for LNG. This is a complex issue, with much consideration given to how LNG financial markets work, but in short, in order to consider LNG as a viable alternative source of electrical generation for this province, as a utility Nalcor must be able to enter into long term supply arrangements with global providers. Our need is simply too small on the global stage for us to secure a favourable pricing arrangement.