Date: 9/16/2011 12:28:22 PM

From: "Marshall Q.C., Hon. Thomas"

To: "Wells, Larry"

Subject : FW: Navigant Information for Ministers

Attachment: KM for Ministers - navigant.doc; Nalcor DG2 Report Executive Summary and Key Findings.pdf; navigant Q&A.docx;

From: Joyce, Luke

Sent: Friday, September 16, 2011 10:47 AM

To: Marshall Q.C., Hon. Thomas

Subject: Fw: Navigant Information for Ministers

Importance: High

FYI

Sent Via BlackBerry

From: Maclean, Heather

To: Carter, Carol Ann; May, Heather E.; O'Neill, Melony; Joyce, Luke; Card, Jason; Donnan, Hugh; Colman-Sadd, Vanessa; Tulk, Jennifer; Power,

Bradley; Barfoot, Scott; Clarke, Lesley; Tompkins, John; Morrissey, Ken; Quinton, Diana; Scaplen, Roger

Cc: Power, Glenda; Brown, Milly, Howard, Jacquelyn; Collingwood, Jennifer; Cheeseman, Josephine; Humphries, Denise; Williams, Tina

Sent: Fri Sep 16 10:34:55 2011

Subject: Navigant Information for Ministers

FYI - please pass along the attached information (relates the Navigant review (Muskrat Falls)) to your ministers.

Much appreciated, Heather

Heather MacLean
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Department of Natural Resources
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Key Messages Muskrat Falls - Navigant Independent Supply Decision Review September 16, 2011

- Navigant is an internationally recognized authority in the energy industry, and is recognized globally for their leadership in the field of renewable energy.
- Navigant was asked to review and assess the reasonableness of:
 - The long-term Island supply options considered by Nalcor;
 - Nalcor's assumptions associated with Island supply options; and
 - The process followed to screen and evaluate the supply options.
- Navigant completed an assessment of the reasonableness of the supply options
 considered and screened by Nalcor in the Island supply decision, including:
 hydroelectric, transmission Interconnection with Labrador, other renewables
 (tidal, biomass, wind, etc.), thermal and nuclear as well as various options within
 some of those categories. Navigant concluded the alternatives were
 appropriately reviewed.
- The report conducted by Navigant contains an independent and objective opinion of Nalcor's analysis. Navigants' review is no different then hiring auditors who are paid for their expertise and independence. Their reputation rests in their credibility.
- Navigant is a reputable consultant and are engaged in conducting this type of work around the world on similar projects. Their input and analysis are valuable for Nalcor. In their professional opinion, this project is the least cost option for the island.
- Independent reviews are part of a regular business process, and provide the degree of quality assurance by independent experts required for major decisions. The reviews are an opportunity to assess readiness, challenge the project team and provide assurance that the project will deliver the required business results. This review is another piece of important information to consider as we move towards making a final decision on Muskrat Falls.

Report Findings

 Navigant has concluded that the Interconnected Island alternative is the longterm least cost option for the Island of Newfoundland. Relative to the Isolated Island alternative, the Interconnected Island alternative is also expected to provide similar levels of security and reliability, significantly reduced greenhouse gas (GHG) emissions and significantly less risk and uncertainty. The Interconnected Island alternative also provides a gradual decrease in real (adjusted for inflation) average wholesale electricity rates for the Island.

- Navigant has concluded that Nalcor's consideration and screening of the supply options as well as the assumptions used by Nalcor regarding these options were reasonable and consistent with generally accepted utility practices. Nalcor's process to evaluate the supply options and estimate the rate projections under the two alternatives was also found to be reasonable and consistent with generally accepted utility practices.
- Navigant has concluded that the cumulative present worth (CPW) calculated by Nalcor for each of the generation expansion alternatives fairly represent the costs that would be incurred under the alternative supply futures. Thus, the \$2.2 billion preference for the Interconnected Island alternative, as estimated by Nalcor in the DG2 decision gate, is a reasonable estimate of the expected cost difference between the two alternatives.
- To explore the sensitivity of the CPW difference between the two alternatives to changes in the supply options or assumptions, Nalcor and Navigant analyzed a number of sensitivity cases. All of the sensitivity cases resulted in a CPW advantage for the Interconnected Island alternative. This clearly indicates that the DG2 decision preference for the Interconnected Island alternative was robust given the underlying risk and uncertainty in key assumptions.



EXECUTIVE SUMMARY AND KEY FINDINGS

Nalcor Energy has proposed a plan for the long term electricity supply for the Island of Newfoundland. This plan passed through Decision Gate 2 (DG2) where the Muskrat Falls with the Labrador-Island Link was chosen as the preferred alternative to meet future energy needs. Nalcor's Gateway Process is designed to ensure decisions are made at appropriate times, with the appropriate level of information, and at appropriate levels of expenditure. It focuses on key milestones to achieve gateway readiness and builds in "cold eyes" reviews at key decision points throughout the process.

Decision Gate 3 (DG3) – Project Sanction is the next step in the process. DG3 requires the advancement of project activities and work streams to a level of progression which provides the certainty needed to sanction or go ahead with the Project. Nalcor has retained Navigant to conduct an initial review using DG2 estimates. This report presents Navigant's findings related to Nalcor's recent DG2 decision. Navigant will provide a second report using DG3 project cost and schedule information as input to the DG3 decision.

Options Considered by Nalcor

Nalcor's DG2 decision evaluated a number of potentially feasible generation expansion alternatives for the long-term supply of electricity to the Island of Newfoundland. The alternatives fell into two broad categories: 1) Isolated Island alternatives, and 2) Interconnected Island alternatives. The optimal generation plan for each category was selected from the potential feasible alternatives in each category. The optimal generation expansion plan in each of these two categories is described below:

- 1. *Isolated Island* alternative would entail continued isolation of the Island power grid and the inherent supply and operational limitations associated with isolation. The key elements are:
 - Development of limited renewable resources in the near-term
 - Pollution abatement, life extension improvements at the Holyrood plant, replacement of the Holyrood plant, and
 - Continued development of thermal power resources across the planning period 2010 to 2067.
- 2. *Interconnected Island* alternative would provide the capability to displace the Holyrood plant and meet the growth in provincial power requirements for years to come. In addition, this alternative would interconnect the Island with the regional North American power grid. The key elements are:
 - Muskrat Falls generation facility, and
 - Labrador-Island Link (LIL) transmission facility.



Nalcor's DG2 Results

Based on the assumptions, inputs and analysis undertaken by Nalcor, the Cumulative Present Worth (CPW, present value in 2010\$ of annual utility revenue requirements) for each of the two generation expansion alternatives is shown in the following table.

Generation Expansion Alternative	Cumulative Present Worth (CPW) 2010\$ millions
Isolated Island	\$8,810
Interconnected Island	\$6,652
Preference for Interconnected Island	\$2,158

As shown above, Nalcor projects that developing the Interconnected Island alternative will result in lower utility costs for customers of \$2.2 billion in present value terms through 2067 as compared to the Isolated Island alternative.

Navigant's Independent Supply Decision Review Mandate

Navigant was asked to review the reasonableness of:

- The long-term Island supply options considered by Nalcor
- Nalcor's assumptions associated with Island supply options, and
- The process followed to screen and evaluate the supply options.

Based on this review, Navigant was to provide an opinion on:

- Whether the Interconnected Island alternative represents the least cost option that also fulfills the additional criteria requirements of security of supply and reliability, environmental responsibility, and risk and uncertainty, and
- The accuracy of the rate projections.

Navigant's Conclusions

Based on its independent review, Navigant has concluded that the Interconnected Island alternative is the long-term least cost option for the Island of Newfoundland. Relative to the Isolated Island alternative, the Interconnected Island alternative is also expected to provide similar levels of security and reliability, significantly reduced greenhouse gas (GHG) emissions and significantly less risk and uncertainty. The Interconnected Island alternative also provides a gradual decrease in real (adjusted for inflation) average wholesale electricity rates for the Island.



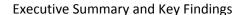
Navigant has concluded that Nalcor's consideration and screening of the supply options as well as the assumptions used by Nalcor regarding these options were reasonable and consistent with generally accepted utility practices. Nalcor's process to evaluate the supply options and estimate the rate projections under the two alternatives was also found to be reasonable and consistent with generally accepted utility practices.

Navigant has concluded that the CPW calculated by Nalcor for each of the generation expansion alternatives fairly represent the costs that would be incurred under the alternative supply futures. Thus, the \$2.2 billion preference for the Interconnected Island alternative, as estimated by Nalcor in the DG2 decision gate, is a reasonable estimate of the expected cost difference between the two alternatives.

To explore the sensitivity of the CPW difference between the two alternatives to changes in the supply options or assumptions, Nalcor and Navigant analyzed a number of sensitivity cases covering:

- different fuel price forecasts
- lower load growth
- additional wind generation
- introduction of carbon pricing
- aggressive CDM, and
- higher capital costs and the recently announced Federal Loan Guarantee for Muskrat Falls and the LIL.

All of the sensitivity cases resulted in a CPW advantage for the Interconnected Island alternative. This clearly indicates that the DG2 decision preference for the Interconnected Island alternative was robust given the underlying risk and uncertainty in key assumptions.





Key Findings

- 1. Nalcor's Gateway Process is a rigorous means of providing quality assurance for key decisions at crucial points in a project's lifecycle and is consistent with best practices.
- 2. The level and accuracy of the information used in Nalcor's DG2 Island Supply Decision was appropriate for the decision stage.
- 3. The 50 year generation expansion analysis period used by Nalcor was appropriate given the long-lived supply options being analyzed.
- 4. Nalcor appropriately included Muskrat Falls in Labrador and Island Pond, Portland Creek and Round Pond on the Island as hydroelectric generation in their generation expansion alternatives.
- 5. Nalcor appropriately excluded Gull Island in the Interconnected Island alternative because the purchase price for power from Gull Island would have to be 60 percent higher than power from Muskrat Falls under the same pricing framework.
- 6. Nalcor appropriately excluded other potential hydroelectric facilities in both generation expansion alternatives because the expected cost of power from other potential hydroelectric facilities would be approximately 20 percent higher than wind power.
- 7. Nalcor's exploration and analysis of alternatives for the LIL was rigorous and the transmission options developed and considered by Nalcor were reasonable.
- 8. LIL will be implemented using proven and reliable HVdc technology.
- 9. Nalcor's rejection of deferring the in-service date of the link until 2041 and using Churchill Falls as a supply option for the Island was reasonable given the higher costs and greater risks as compared to the Interconnected Island alternative.
- 10. Wind power is expected to be the lowest cost of the other renewable electricity supply options on the Island and Nalcor's inclusion of wind power in the Isolated Island alternative was reasonable.
- 11. Provided the power system constraints identified in the 2004 wind integration study can be addressed cost-effectively, Nalcor's Isolated Island alternative could consider 100 MW of additional wind power in 2025 and a further 100 MW in 2035 when it would be potentially expected to displace fossil fuel-fired generation most of the time.
- 12. No amount of wind generation could eliminate the need for the firm capacity provided by Holyrood or any replacement thermal facilities given the limited and uncertain capacity of wind generation.



- Nalcor would have the capacity to integrate significantly more than 200 MW of wind only in the Interconnected Island alternative given the performance characteristics of Muskrat Falls.
- 14. Nalcor appropriately excluded biomass from both generation expansion alternatives because of the relatively limited biomass accessible through NL's existing forestry infrastructure.
- 15. Nalcor appropriately excluded solar photovoltaic (PV) generation in both generation expansion alternatives because of Newfoundland's low insolation rates and the cost of power from solar PV installations.
- 16. Nalcor appropriately excluded wave and tidal generation in both generation expansion alternatives because of its unproven commercial viability.
- 17. Nalcor appropriately included the continuation of oil-fired generation in both generation expansion alternatives because it is a proven resource in the Island's generation supply mix.
- 18. Nalcor appropriately excluded natural gas generation in both generation expansion alternatives because natural gas is not commercially available on the Island and there are, as yet, no firm development plans to bring natural gas to the Island.
- 19. Nalcor appropriately excluded liquefied natural gas (LNG) generation in both generation expansion alternatives because there is no clear economic advantage to using LNG given the required capital for LNG-related facilities, coupled with the linkage of long term LNG pricing to oil.
- 20. Nalcor appropriately excluded coal-fired generation in both generation expansion alternatives because of its significant environmental risks.
- 21. Nalcor appropriately excluded nuclear generation in both generation expansion alternatives because of provincial legislation, project capital costs and risk factors.
- 22. Nalcor's forecast methodology is consistent with generally accepted utility practice and the base forecast for demand and energy growth is reasonable.
- 23. Absent new supply, the Island will experience a capacity deficit in 2015 and an energy deficit in the 2020 timeframe
- 24. Nalcor could consider the impact of a longer term CDM initiative.
- 25. Nalcor's risk assessment analysis for Muskrat Falls and the Labrador-Island Link project was thorough and comprehensive.



- 26. Nalcor's focus on time, tactical and strategic risks for the Muskrat Falls and Labrador-Island Link is consistent with best practices and provides a high level of confidence in the integrity of capital cost estimates.
- 27. Nalcor's estimated capital costs and escalation methodology for the various supply options considered in the two generation expansion alternatives was reasonable.
- 28. The fuel cost forecast used by Nalcor in its analysis of the generation expansion alternatives was reasonable.
- 29. The heat rates, operating and maintenance costs, operating lives, projected retirements, and outage rates used by Nalcor in its analysis of the generation expansion alternatives were reasonable.
- 30. Nalcor could consider how future environmental legislation, such as limits on the unit emission rates for fossil-fuel fired generation that could force the closure of Holyrood or the introduction of carbon pricing that would increase thermal production costs, would affect its supply alternatives.
- 31. The Muskrat Falls pricing approach used by Nalcor was appropriate and sufficiently well defined for the purposes of 1) estimating the Muskrat Falls power purchase price, and 2) informing the DG2 decision.
- 32. Nalcor's use of the Strategist model in developing the two generation expansion alternatives is consistent with generally accepted utility practice.
- 33. The CPWs for the generation expansion alternatives fairly represent the costs that would be incurred under the alternative supply futures. Therefore, the \$2.2 billion CPW preference for the Interconnected Island alternative is a reasonable estimate of the expected cost difference between the two alternatives.
- 34. The sensitivity cases run by Nalcor and Navigant capture the key risks in the assumptions for, and the impacts of potential refinements to, the generation expansion alternatives.
- 35. All of the sensitivity cases maintained the CPW preference for the Interconnected Island alternative. This clearly indicates that the DG2 decision preference for the Interconnected Island alternative was robust given the underlying risk and uncertainty in key assumptions in the generation expansion alternatives.
- 36. The CPW preference for the Interconnected Island alternative is maintained after adding more wind or CDM to the Isolated Island alternative.



- 37. Current information, and specifically the updated May 2011 PIRA long term fuel forecast and the recently announced federal loan guarantee commitment, increases the CPW preference for the Interconnected Island alternative.
- 38. Relative to the Isolated Island alternative, the Interconnected Island alternative is also expected to provide similar levels of security and reliability, significantly reduced GHG emissions and significantly less risk and uncertainty.
- 39. The criteria used by Nalcor in the Island supply decision were reasonable and consistent with generally accepted utility practices.
- 40. The Interconnected Island alternative represents a fundamental change to a more stable and certain utility cost structure for the Island by minimizing thermal generation and its associated fuel cost uncertainty.
- 41. Nalcor's wholesale electricity rate impact analysis accurately reflects the rate projections and provides a reasonable basis for assessing unit cost trends with respect to the two alternatives.
- 42. Short-term increases in real (before considering inflation) wholesale electricity rates would occur over the next few years under either alternative. Beyond 2017, the wholesale electricity rates for the Interconnected Island alternative decline in real terms.
- 43. Wholesale electricity rates are lower in the Interconnected Island alternative than the Isolated Island alternative except for a brief period at the end of this decade. This short-term issue could be mitigated through ratemaking.

Q & A's RELEASE OF NAVIGANT REPORT

1. How was this report commissioned and when?

A Request for Proposals for an independent supply decision review was released on May 6, 2011, and distributed to key consulting firms who undertake work of this nature. Upon completion of the evaluation stage of the RFP process, the contract was awarded to Navigant on June 30, 2011. Work began within two weeks of the contract award.

2. How much did Nalcor pay Navigant for this review?

The contract pricing is based on time and expenses incurred in development of the reports outlined below. Based upon current estimates the contract is expected to be approximately \$250,000.

3. What expertise does Navigant have related to this review?

In the context of the Independent Supply Decision Review, Navigant brings:

- Experience in supply planning, generation costing, demand forecasting and integrated resource planning.
- Understanding of standard industry practices and best practices regarding supply planning, demand forecasting and integrated resource planning.
- Extensive experience in developing market price forecasts in competitive power markets and marginal costing and revenue requirements in regulated electricity markets.

4. Government and Nalcor have used Navigant in the past, is this why Nalcor chose Navigant to do this report?

No. Nalcor chose Navigant because the company has experience and an understanding of standard industry practices and best practices in supply planning, generation costing and demand forecasting. They also have extensive experience in developing market price forecasts in competitive power markets and marginal costing and revenue requirements in regulated electricity markets.

5. Did Nalcor/government see the report before it was final?

This is Navigant's report and the normal process is to have engagement with the client to ensure the information presented in a report is technically accurate. In this case, Nalcor did provide a technical review to ensure the facts were correct, that the options explored were understood by Navigant.

Nalcor received a final copy of the report on September 14 and the report was provided to government prior to public release.

6. Is the report independent if Nalcor provides all the data and gets to review and make comments on the drafts?

Navigant Consulting is an internationally recognized authority in the energy industry. Navigant is recognized globally for their leadership in the field of renewable energy.

This report contains Navigant's independent and objective opinion of Nalcor's analysis.

7. Was anyone/group outside Nalcor and the gov't consulted by Navigant?

This review is part of Nalcor's planning process and draws upon Navigant's subject matter expertise to allow them to offer their opinion as such they do not require a public consultation component or meetings with other external parties.

Nalcor over the past five years has conducted open houses and consultations on the Lower Churchill Project throughout the province, meeting with various stakeholders and incorporating their feedback in our planning. This is an important planning principle which Nalcor believes is important to a positive and inclusive planning process.

8. What is the purpose of the report or the mandate of Navigant?

Navigant was asked to review and assess the reasonableness of:

- The long-term Island supply options considered by Nalcor;
- Nalcor's assumptions associated with Island supply options; and
- The process followed to screen and evaluate the supply options.

Based on this review, Navigant was to provide an opinion on:

- Whether the Interconnected Island alternative represents the least cost option that also fulfills the additional criteria requirements of security of supply and reliability, environmental responsibility, and risk and uncertainty; and
- The accuracy of the rate projections given the underlying assumptions.

9. Why did Nalcor undertake this report?

The review being conducted by Navigant is a component of Nalcor's Decision Gate process. One of the key principles and practices which Nalcor follows as part of its best practice approach to mega project management is to conduct independent or "cold-eyes" reviews at key decision points throughout the Decision Gate process. Independent reviews are carried out in accordance with established Nalcor decision-making processes with each Decision Gate having differing requirements. This review is an important part of our work being completed prior to Project Sanction or Decision Gate 3.

10. What's the difference in the Navigant report and the review the PUB is doing?

Nalcor has commissioned Navigant, a nationally recognized company in the energy industry, to conduct an assessment of the options available to meet our electricity needs and to help us review and verify our data.

The provincial government has asked the Public Utilities Board to provide a review of the process used to determine that Muskrat Falls represents the least-cost option for the supply of power to island electricity consumers compared to the isolated island option. The PUB has retained Manitoba Hydro International to analyze the two generation options.

For Nalcor, these types of independent reviews are part of our regular business process and we use them throughout our work as we move towards sanctioning this project.

11. Is the review too limited in that it is just looking at Muskrat Falls vs. Isolated Island? Did Navigant analyze other supply options outside the Isolated Island and MF alternatives?

Yes, Navigant did a full review of the alternatives which Nalcor looked at in its assessment?

12. Did Navigant look at the development of Gull Island as an option to meet the island's needs?

Yes, Nalcor included Gull Island as a supply option to the island which was analyzed by Navigant. In its report, Navigant stated that Nalcor appropriately excluded Gull Island in the Interconnected Island alternative because the purchase price for power from Gull Island would have to be 60% higher than power from Muskrat Falls under the same pricing framework.

13. Why didn't this report include the analysis for financing and monetization of export sales?

Nalcor uses Price Waterhouse Coopers for analysis and opinion on its financing options. Therefore, Nalcor did not include financing analysis in this review. This review leading into DG3 assessed the long-term island supply options as Muskrat Falls is being constructed to supply the long-term needs of the island.

14. Why does Nalcor do independent reviews?

Independent reviews provide the degree of quality assurance by independent experts required for major decisions. The reviews are an opportunity to assess readiness, challenge the project team and provide assurance that the project will deliver the required business results.

15. How is this review different than the reviews completed last year?

Different reviews are proposed for different gates based on our requirements. For Decision Gate 2, two separate external independent project reviews were conducted. The objectives of these reviews were:

- To provide external challenge to the project team at each Decision Gate, to help assess
 the validity and robustness of the work done, the key areas requiring focused attention
 and to assist in maximizing the value of the business opportunity;
- To assess the suitability of the project plans and strategies;
- To appraise the readiness and justification of the project to proceed into the next Gateway phase.

The current review undertaken by Navigant is an independent review of the supply options analysis.

16. Will another review be done before DG3?

As part of this review, Navigant will provide a second report using DG3 estimates and assumptions prior to the conclusion of the DG3 process. This independent review of the reasonableness of the Island supply decision will use the latest available project cost and schedule information.

17. What additional analysis will be undertaken by Nalcor leading up to the sanction decision?

Nalcor will complete detailed engineering and design, cost and schedule updates, completion of the financing plan and finalization of commercial agreements. There will also be several other elements required including environmental permitting.

18. Why didn't Nalcor do this review before DG2? Are there other reports that Nalcor did that can be released to the public?

Nalcor completed two separate External Independent Project Reviews were conducted: an Independent Project Analysis (IPA) and Independent Project Review (IPR) for Decision Gate 2 for the Lower Churchill Project. Both studies are complete and confirmed that overall the Project and the Project Team were both ready to move forward to the next phase, and is on track to achieve the business objectives. This information was distributed publically in June and is available on our website.

These reviews were completed by Nalcor as part of internal processes as the company headed toward Decision Gate 2 - or concept selection. We were confident in our analysis at DG2, and this work is in prep for DG3. We are using DG2 data to get a lot of the work done prior to DG3 and at DG3 we will just have to refresh some inputs but our processes are validated.

19. Why isn't Hydro focused more on CDM to reduce the need to build more generation?

Nalcor is committed to CDM initiatives and helping electricity consumers save money on their electricity bills. In 2008, Hydro and Newfoundland Power jointly filed a 5 Year Energy Conservation Plan outlining a target of 79 GWh/year savings by the Plan's final year in 2013.

This plan will be updated in 2011 as a joint utility effort and will explore an expansion of programs and increased savings targets.

We can't use CDM to offset or make future generation decisions; however, with the Maritime Link, CDM will play an important role as additional power can be exported and sold outside the province.

20. Could CDM programming delay the decision to build Muskrat Falls or make the Isolated Island scenario the least-cost option?

No, CDM will not enable us to delay the decision and will not change the fact that Muskrat Falls is the lowest cost option. We are going to experience a capacity and energy shortfall within the next decade and both NL Hydro and Newfoundland Power are in the early stages of their CDM programming. Our expectation is that we will ramp up over the next 20 years and as we mature, we'll see some strong savings but not enough at this time to displace new generation or delay Muskrat Falls.

21. Nalcor should be doing more energy conservation. Why are you not doing more?

NL Hydro partnered with Newfoundland Power in 2006 to launch the takeCharge program for electricity consumers. Although in the very early stages we are seeing some results and we intend to continue to push conservation and demand management. It is a collective effort though and for CDM to work there are many conditions which need to be in place and we'll continue to work our partner Newfoundland Power and with the various levels of government and consumers to achieve our CDM targets.

22. Why didn't you include more wind in your isolated option?

We had concerns with the amount of wind that could be integrated into the isolated system. Nalcor did a sensitivity analysis and the most we could absorb is up to 200 MW and we expect anything beyond that would have to be curtailed as we would be spilling water at our existing hydroelectric facilities.

Incremental wind production would not necessarily displace fossil-fuel fired thermal output at all times of the year. No amount of wind generation could eliminate the need for the firm capacity provided by Holyrood or any replacement thermal facilities given the limited and uncertain capacity of wind generation.

Nalcor would have the capacity to integrate significantly more wind in the Interconnected Island alternative given the performance characteristics of Muskrat Falls. This would add additional revenue to the province through sales of export power outside the province.

23. Why can't you do both wind and CDM to offset generation on the island?

Our load is served by a combination of hydroelectric and thermal. A combination of aggressive CDM (very difficult to achieve) and more wind generation on the island would actually displace

cheap hydroelectric generation on the island and this would be more expensive than the Interconnected system.

24. What does this report mean for Nalcor and the decision to proceed with MF?

This report confirms that we are ready to continue on our path to DG3 or sanction of Muskrat Falls.

25. How could Navigant come to the conclusion that Muskrat Falls is the least-cost supply option for electricity consumers on the Island of Newfoundland but the Joint Review Panel said Nalcor didn't prove this?

The panel was focused on a broader environmental and socio-economic review. Their recommendation was that an independent review be completed on Muskrat Falls as the least-cost option for energy supply to the island. That review was already in progress with Navigant, who are an expert in this industry. Navigant's conclusion is that this project is the least cost supply option for the province.

26. This report is very positive and supportive of this development? What do you say to those people who say the report is not independent?

Our job is to focus on the development of the right option for Newfoundland and Labrador and we continue to advance Muskrat Falls and a link to the island because our analysis supports it as the least cost option for electricity supply to the island. We have asked Navigant to review our analysis as we advance to project sanction. Like our other reviews, Nalcor provides information and data to these external consultants but they are independent professionals who conduct themselves accordingly. Navigant is a reputable consultancy and they are engaged in conducting this type of work around the world on similar projects. Their input and analysis are valuable for Nalcor. In their professional opinion, this project is the least cost option for the island.