NR 2012 –

Title: Sanction Decision on the Muskrat Falls Project

# **ISSUE:**

Whether to sanction the Muskrat Falls Project at this time.

# **RECOMMENDATION(S):**

It is recommended that Cabinet:

- 1) Authorize Nalcor Energy to sanction and proceed with the development of the Muskrat Falls Projects, including the Muskrat Falls Plant, Labrador Transmission Assets, Labrador-Island Link and Maritime Link.
- 2) Authorize the Department of Finance to make base equity contributions to the project in accordance with the financing structure (debt/equity) determined on financial close and to make contingent equity contributions as required to bring the project in service.

# **BACKGROUND:**

Government's 2007 Energy Plan identifies the Lower Churchill Project as a significant opportunity to "increase the amount of clean, renewable energy produced in the province, reduce the Island's reliance on fossil fuels, and provide rate stability and certainty for the people of the province." As such, Government committed to lead the development of the Lower Churchill Project through Nalcor to realize a renewable future and to meet the province's energy needs with, "environmentally friendly, stable, competitively priced power."

Since that time, Nalcor has been actively pursuing the development of the Lower Churchill Project on a number of fronts to meet the long-term energy needs of the province. For example, Nalcor has attempted to gain access through Quebec's transmission system for the Lower Churchill Project but these efforts have not proved successful, resulting in regulatory rulings, appeals and ultimately a court challenge.

In the meantime, simultaneous to pursuing the Lower Churchill Project and pending a sanction decision, Nalcor has maintained a second generation expansion plan that includes continued reliance on the Holyrood Thermal Generating Station in conjunction with small hydro and wind (Isolated Island option).

In July 2010, as part of its mandate to provide the least cost supply of power to customers, Newfoundland and Labrador Hydro (NLH) released its annual Generation Planning Forecast which is a comprehensive 20-year load forecast to determine the province's expected electricity consumption. In its report, NLH highlighted an expected energy capacity deficit in 2015, with a firm energy shortage emerging post-2019. This finding necessitated a decision on the preferred next source of generation to meet the province's long-term energy needs.

As a result, Nalcor examined options to address these shortfalls and determined that there were two acceptable alternatives for consideration: 1) the Isolated Island option; and 2) the interconnected Island option – Muskrat Falls generating station with a HVDC link connecting the Island to the North American grid (Muskrat Falls). Nalcor subsequently determined that Muskrat Falls was the least-cost alternative by a Cumulative Present Worth (CPW) of \$2.2 billion and recommended that this option be pursued as the next source of generation to meet the long-term energy needs of the province.

In November 2010, Nalcor and Emera Inc. of Nova Scotia announced a partnership to develop Muskrat Falls and the Maritime Link that would connect the Island to Nova Scotia. In exchange for building the Maritime Link, and investing in the Labrador-Island Link, Nalcor would deliver 20% of the output of Muskrat Falls to Emera for a period of 35 years. Since that time, there have been a significant milestones achieved in relation to Muskrat Falls.

#### Muskrat Falls Assessments

The conclusion that Muskrat Falls is the lowest-cost option to meet the province's future electricity needs from the period 2017 to 2067 has been verified by a number of independent experts. In 2011, Nalcor engaged Navigant Consulting who concluded that based on DG2 numbers, the \$2.2 billion preference for the Interconnected Island alternative is "a reasonable estimate of the expected cost difference between the two alternatives."

In June 2011, Government submitted a reference question to the Board of Commissioners of Public Utilities (PUB) asking it to determine which of the two generation expansion options under consideration was the least cost over the period from 2011 to 2067. While the PUB was non-definitive in its review of the two options, its own expert, Manitoba Hydro Inc. (MHI) did conclude that based on Nalcor's inputs, the CPW estimates for each option were correct and that Muskrat Falls was the least-cost option when compared with the Isolated Island alternative. Additionally, as part of the PUB review, the Consumer Advocate engaged Knight Piesold Consulting and ultimately agreed with MHI's assessment that Muskrat Falls represented the least-cost option of the two alternatives.

Furthermore, Natural Resources Canada (NRCan) conducted an analysis of both options and found that Muskrat Falls was the lower cost option. As well, Dr. Wade Locke, Professor of Economics at Memorial University, concluded that based on Nalcor's inputs, Muskrat Falls was the least cost alternative.

More recently, MHI was engaged by Government to assess updated Muskrat Falls cost estimates (Decision Gate 3 numbers), which include the benefit of the Federal Loan Guarantee (discussed later in the paper), and concluded that Muskrat Falls was the least-cost option to meet the province's electricity needs, with a CPW difference of \$2.4 billion.

In addition to assessments to determine if Muskrat Falls was the least-cost option when compared with the Isolated Island option, there have been several studies to determine the viability of other long-term generation alternatives to Muskrat Falls. For example, both Hatch and MHI assessed how much additional wind generation could be added to the isolated Island system from both an economic and technical perspective and

concluded that the maximum penetration of wind in the Isolated Island scenario was 10% of total generation which equates to no more than 300 MW in 2035. MHI further concluded that the CPW analysis favours Muskrat Falls over the Isolated Island option even when the maximum penetration of wind was incorporated.

Ziff Energy completed two separate studies on the potential for natural gas to meet the province's future energy needs. With respect to landing domestic natural gas from the Grand Banks, it concluded that capital costs to develop Grand Banks natural gas are high and the return on investment would be below industry thresholds. For this reason, it concluded that landing Grand Banks gas to feed thermal generation is an unlikely scenario due to uneconomic returns. Ziff Energy's report on the importation of Liquefied Natural Gas (LNG) for electricity generation was completed in the fall of 2012 and found that the price for doing so, at nearly \$25 per thousand cubic feet, would be prohibitively expensive. Ziff also concluded that relying on LNG would expose NL electricity consumers to supply risk in winter months, and ultimately concluded that LNG was not a viable alternative as an energy source for thermal electricity generation in NL.

The Department of Natural Resources (NR) also completed a series of public reports related to Muskrat Falls, including two focused on potential alternatives. The first was an explanation of why Muskrat Falls was chosen instead of Gull Island. The report concluded that although NL would prefer to proceed with Gull Island, without transmission access to export markets through Quebec, it is not feasible at this time. Gull Island has 2,250 MW of generating capacity, far more than NL will require in the foreseeable future, and therefore export of surplus power would be required.

A second report addressed the alternative of waiting until 2041 when the Upper Churchill Power Contract expires. The report explained that CFLCo is owned by NLH and Hydro Quebec (HQ) jointly and for this reason, NLH will not have absolute authority over the corporate actions of CFLCo and it cannot be assumed that Newfoundland and Labrador will receive cheap or free power in 2041. Additionally, it is doubtful that the Holyrood Generating Station could continue to provide reliable power for the required time period. Furthermore, waiting for 2041 will mean increased reliance on oil and consequently more volatile prices for electricity and would also prevent the province from capitalizing on opportunities for export sales and/or industrial development. For

these reasons, the report concludes that waiting until 2041 is not a practical alternative to developing Muskrat Falls now.

The benefits stemming from Muskrat Falls have also been assessed. Muskrat Falls will provide a stable, competitively priced source of energy for generations and will also generate significant economic benefits through substantial employment and income to businesses. Muskrat Falls will also potentially facilitate mining expansion by providing power for new mines, expansions of existing mines, and re-activation of former mines. NR released a report concluding that Muskrat Falls would be an important source of power for mining developments in Labrador after 2017 and that sanctioning the project may assist mining companies in making positive investment decisions. This conclusion was supported by Dr. Wade Locke in his report, Economic Impact Analysis of Iron Ore Mining Industry in Labrador. Dr. Locke reviewed a number of scenarios and showed that over the next 21 years, mining in Labrador could see anywhere from \$7.4 to \$33.5 billion in capital expenditures, annual average GDP impacts of \$2.1 to \$6.9 billion, and average annual employment of 11.3 to 24.5 thousand person-years. Dr. Locke ultimately concluded that economic impacts currently enjoyed from mining could expand by a factor of three if there are no constraints posed by the availability of power and labour.

The province will begin receiving dividends from the Project in 2017. Cumulative dividends in nominal dollars are currently estimated at \$23.5 billion from 2017-2067. Dividends grow from \$15 million in 2017 to in excess of \$900 million in 2067 with average dividends of \$469 million per year.

Furthermore, Muskrat Falls will result in significant environmental benefits. NR completed a report that found that completion of the project will allow the decommissioning of the Holyrood Thermal Generating Station and see 98% of the province's electricity come from clean, renewable sources. This would substantially reduce the province's Greenhouse Gas emissions and would lower fossil fuel use at Holyrood by 18,000 barrels of oil per day during peak heating season. This finding has also been confirmed by the Federal Government.

#### Additional Muskrat Falls Milestones

There have been several other milestones achieved since Nalcor's decision that Muskrat Falls was the preferred next source of generation to meet the province's energy needs. In summary:

- In June 2011, members of the Innu Nation overwhelmingly voted in favour of the Innu Land Claims Agreement, the Lower Churchill Impacts and Benefits Agreement, and Upper Churchill Redress Agreement.
- In August 2011, the Governments of Canada, Newfoundland and Labrador and Nova Scotia signed a Memorandum of Agreement (MOA) for the provision of a loan guarantee by the Government of Canada to the Lower Churchill Project (see below).
- In November 2011, the Innu Agreements (referenced above) were officially signed with the Governments of Canada and Newfoundland and Labrador, Nalcor, and the Innu of Labrador.
- In March 2012, the Governments of Canada and Newfoundland and Labrador released the Lower Churchill Generation Project from the environmental assessment process while committing to ensure the implementation of mitigation measures to reduce the adverse environmental impacts identified by the Joint Review Panel. Separate environmental assessments are underway for the LIL and Maritime Link (see Environmental Considerations section).
- In July 2012, Nalcor and Emera completed formal commercial agreements to develop Muskrat Falls and the Maritime Link.
- In October 2012, Government released MHI's report on Decision Gate 3 information which included up-to-date information on load forecasts, fuel price forecasts, defined capital costs, and system integration studies. MHI concluded that Muskrat Falls is the least cost option for meeting future generation requirements in NL and recommended that Nalcor pursue Muskrat Falls.
- In November 2012, all parties announced formal agreement on the amount and term of the Federal Loan Guarantee.

#### Federal Loan Guarantee

As referenced above, in August 2011, Canada, the Province, and Nova Scotia governments' signed a Memorandum of Agreement (MOA) for the provision of a loan guarantee by the Government of Canada to the Lower Churchill Project (includes Muskrat Falls and the Maritime Link).

On November 30, 2012 agreement was reached between all parties on the term and amount of the Federal Loan Guarantee (FLG). In general the FLG only applies to both Muskrat Falls and the Maritime Link and is capped at \$6.3 billion. The term of the FLG is 35 years for the Muskrat Falls Generation Station and the Labrador Transmission Assets, 40 years for the LIL, and 40 years for the Maritime Link. The FLG will lower the costs of borrowing for the proponents, with projected savings of over a billion dollars for ratepayers in Newfoundland and Labrador and Nova Scotia. The FLG is contingent on sanction of both Muskrat Falls and the Maritime Link project.

#### **Timing**

Nalcor has requested a sanction decision by the end of 2012 in order to maintain the in-service date of 2017 for Muskrat Falls, and also to maintain its financing schedule. Nalcor is currently anticipating approaching lenders to the project in early 2013 pending a sanction decision by the end of 2012. The Maritime Link will be undergoing a regulatory review by Nova Scotia's Utility and Review Board (UARB) however the application has not yet been filed with the UARB. Emera is not required to sanction the Maritime Link until after the UARB completes its review.

# **ALTERNATIVES:**

# Alternative 1

#### That cabinet:

- 1) Authorize Nalcor Energy to sanction and proceed with the development of the Muskrat Falls Projects, including the Muskrat Falls Plant, Labrador Transmission Assets, Labrador-Island Link and Maritime Link.
- 2) Authorize the Department of Finance to make base equity contributions to the project in accordance with the financing structure (debt/equity) determined on

financial close and to make contingent equity contributions as required to bring the project in service.

# Advantages:

- Provides certainty required for Nalcor to approach lenders in early 2013.
- Maintains project schedule.
- Project provides least-cost solution for Province's long-term generation requirements.
- Project provides power for export and/or domestic industrial development.
- Project provides significant long-term economic and environmental benefits.

# Disadvantages:

- Maritime Link will be undergoing public review through the NS Utility and Review Board (UARB). Sanctioning prior to the UARB decision may be criticized.
- Neither the LIL or Maritime Link have been released from the respective environmental assessment process. Sanctioning prior to such release may be seen as prejudicing the environmental assessment decision.

# Alternative 2

 Defer sanction decision on the Muskrat Falls Project until a later time. (NOT RECOMMENDED)

#### Advantages:

- Provides time to provide further certainty of project costs.
- May allow time for the LIL to be released from the environmental process.
- May allow time for UARB decision which would provide certainty on the Maritime Link project and associated costs.

# Disadvantages:

- Delays project schedule and may lead to alternative and costly interim solution to address expected energy capacity deficit.
- Prevents Nalcor from approaching lenders in early 2013.
- Government may be questioned on its commitment to the Project.

# Alternative 3

• Do not sanction the Muskrat Falls Project (NOT RECOMMENDED)

# Advantages:

• None identified.

# Disadvantages:

- Requires investment in more expensive generation to meet growing electricity demand.
- Maintains isolated island grid.
- Maintains and increases reliance on thermal generation at Holyrood, with increased emissions.
- Foregoes the opportunity to make the Province's electricity grid 98% clean and renewable.
- Eliminates the opportunity to capitalize on the province's substantial hydro resources in Labrador.
- Does not address power needs for industrial expansion in the province, particularly mining expansion in Labrador.

# **LEGAL / LEGISLATIVE CONSIDERATIONS:**

In addition, lands issues will

be dealt with through new, stand-alone legislation. Both pieces of legislation have been approved by Cabinet and are expected to be introduced in the Fall 2012 sitting of the House of Assembly.

# **FINANCIAL CONSIDERATIONS:**

For purposes of financing, the project is segregated into Muskrat Falls/Transmission Assets (MF/LTA) and the Labrador Island Link ("LIL") (collectively referred to as the Project)

DG3 estimates the total capital cost of the project at \$6.2 billion. This estimate includes MF costs of \$2.9B; LTA costs of \$0.7B and the LIL at \$2.6B. The \$6.2B represents the total cost to the Province and Nalcor and excludes interest during construction and financing costs. Note that Emera stated in 2010 that it would invest \$1.2B in the Maritime Link for a total estimated project cost of \$7.4B. Emera's will release their final cost estimates on the ML in the near term, and have recently stated they would be in the range of \$1.3-\$1.5B.

The project will be financed through a combination of 1) an equity investment from the Government of Newfoundland and Labrador ("GNL") and 2) project debt financing by Nalcor.

The Nalcor project debt will be non-recourse financing. The non-recourse structure will mean the project assets will be pledged as security, but that neither Nalcor nor Government would be liable nor would any non-project assets be at risk in the event of default. This approach is commonly used in the energy and infrastructure sectors, where project sponsors provide the equity and lenders provide non-recourse loans that are serviced from project cash flows; in this case the debt will be serviced from the revenue generated from the sale of Muskrat Falls power.

To facilitate the financing of the project, Government provided a commitment letter to Nalcor in October 2011 that outlined its objectives and intentions in support of the project. This letter committed the Government to provide an equity investment in the

Project, including the amount determined during the financing process (Base Equity) and to provide any additional equity required to ensure project completion (Contingent equity).

The Government also committed to ensure that NLH regulated rates provides sufficient revenue in each year to recover all project costs.

The Province's commitment was critical in Phase I of Nalor's finance raising process which was completed in November 2011. This process consisted of Nalcor meeting with the rating agencies to receive a shadow credit rating based on all technical and financial project information available at that time (based on DG2 estimates). A shadow credit rating is a confidential credit rating used to get an indication of the level of risk and credit worthiness that capital markets associate with a projects debt. In this first phase, Nalcor received a strong investment grade shadow credit rating from all three rating agencies- S&P, Moody's and DBRS. The rating agencies noted the importance of Government's support in the rating analysis.

The finance process also includes executing a term sheet for a federal loan guarantee ("FLG"). The term sheet for the FLG was signed in November 2012. The FLG will be a guarantee against \$5.0 billion of the Nalcor project financing debt (MF/LTA up to \$2.6 billion and LIL up to \$2.4 billion) and will not include any debt that is raised by the Province to finance its equity investment in the project.

The federal loan guarantee will lower the cost of the project debt and these savings will be passed directly to the ratepayers through lower electricity rates.

To support a Sanction decision and completion of the FLG, officials from Government and Nalcor met with the rating agencies in October 2012 to obtain an updated credit rating.

Since the November 2011 rating, significant progress was achieved on engineering (now 50% complete); DG3 capital costs have now been finalized, business case has been updated, progress has been made on NL legislative commitments; financing plans have been updated; the Federal loan guarantee had progressed (FLG term sheet executed subsequent to the October 2012 meeting with rating agencies); and Emera agreements have been finalized. The rating agencies were updated on each of these

elements. All three rating agencies have maintained the ratings that were provided in November 2011.

#### Nalcor Financing Summary

Project financing is currently being based on a capital structure for LIL at 75:25 debt to equity and 65:35 debt/equity for the MF/LTA.

Nalcor is in consultation with its relationship banks on market conditions and key financing parameters. The financing will be denominated in Canadian dollars. The debt on the MF/LTA will be for 30 years and the LIL debt will be for a term of 50 years.

The path to financial close for the Nalcor Financing includes the following activities:

- Updated credit ratings resulting from the November 2012 presentations to rating agencies (complete)
- Finalization of the FLG (complete)
- NL Undertakings Implemented (Legislation to be tabled in the House)
- MF, LTA and LIL Sanction
- LIL Environmental Assessment Release
- Preparation for and approach to capital markets
- Fundraising process/Final Due Diligence and Agency Ratings
- Financial Close expected Q4 2013

Note that final ratings will be received for the Project before going to the capital market. Note also that certain of the above terms and conditions may be revised as Nalcor progresses towards financial close in Q4 2013.

#### NL Government Equity Contribution

In addition to the financing process outlined above to place the Nalcor project debt, the GNL has committed to providing the base and contingent equity to complete the project. The Province's equity investment to date is \$290 million and cumulative equity investment before financial close (Q4 2013) is expected to be \$900 million. The total equity requirement is expected to be in the range of \$2.0B-\$2.2B depending on the financing option chosen. This estimate does not factor in Emera's participation. If we factor in Emera's participation, the equity requirement would be in the range of \$1.6B to

\$1.8B. Nalcor is in consultation with its relationship banks on market conditions and key financing parameters. The financing will be denominated in Canadian dollars. The debt on the MF/LTA will be for 30 years and the LIL debt will be for a term of 50 years.

Government will fund its equity contribution in the project primarily from debt. Given the Province's favorable credit ratings, its extended absence from the new issuance market (since 2004 for operational purposes), and the known demand for its name, the required amount of debt should be easily accessible through conventional capital markets.

The borrowing approach will be determined as the project proceeds and will include factors such as future cash flow expectations/requirements and probability of cost over-run risks.

It is the clear opinion of the Province's financial advisors that the required funds can be easily raised in Canadian capital markets through the issuance of provincial government bonds of a plain vanilla nature that will appeal to a wide range of potential investors.

The financial analysis also shows that the free cash flow that will be returned to the Province through dividends from the Muskrat Falls project will be more than sufficient to meet debt servicing requirements. The Muskrat Falls Project will diversify the province's revenue base with a renewable stable revenue stream.

# Net debt

The Province's investment in Muskrat Falls does not impact net debt. While the province may incur debt to finance a portion of the equity investment, it also has an offsetting asset to record- therefore there is no impact on net debt. The Muskrat Project assets are revenue generating assets. Excess revenues above the amount required to service the debt would be available to the Province.

# INTERDEPARTMENTAL CONSIDERATIONS:

NR has consulted extensively with other departments including JUS, FIN, ENVC, SNL, MA, TW, and IGAA throughout various stages of project advancement. Concerns have been addressed and incorporated in enabling legislation and policy decisions insofar as possible. Issues have been acknowledged as each element of the project has come

forward to cabinet (or will come forward in the future) and cabinet will be fully informed on the position of various departments.

# LABRADOR OR ABORIGINAL CONSIDERATIONS:

The project will impact Aboriginals and other peoples of Labrador. In June 2011, members of the Innu Nation overwhelmingly voted in favour of the Innu Land Claims Agreement, the Lower Churchill Impacts and Benefits Agreement, and Upper Churchill Redress Agreement. In November 2011, these Innu Agreements were officially signed with the Governments of Canada and Newfoundland and Labrador, Nalcor, and the Innu of Labrador.

# **INTERGOVERNMENTAL CONSIDERATIONS:**

Negotiations and consultations between NL, NS, and Canada (along with Nalcor and Emera) have been extensive. On November 30, 2012 agreement was reached between all parties on the term and amount of the Federal Loan Guarantee (FLG).

# **OTHER JURISDICTIONS:**

As Emera, a privately-owned NS utility, is a primary partner in the project, the Government of NS has been involved during various phases of project advancement. NS's UARB is currently reviewing the Maritime Link portion of the project.

The project will also have substantial benefits for other jurisdictions. In exchange for its financing of the Maritime Link, Emera will receive a block of power for its distribution in NS or elsewhere. This will provide financial return for Emera and at the same time provide for displacement of thermal generating capacity in Nova Scotia with clean, renewable energy from Muskrat Falls. Similarly, electricity that is surplus to NL's needs will be sold in export markets, enhancing Nalcor's (and thus the province's) financial returns and also displacing thermal generating capacity in other jurisdictions.

Hydro-Quebec has taken advantage of public hearings during the environmental review process to criticize the EIS Guidelines, saying that they were not stringent enough and that the Muskrat Falls project would not be undergoing as thorough a review as Hydro-Quebec's own hydroelectric project had. The Quebec government has also sharply

criticized the Federal Loan Guarantee of the project, arguing that it amounted to an unfair subsidy of a project that will compete with hydro-electric power from Quebec. Quebec further argues that transmission is an area of provincial jurisdiction and that the Federal Government should not be involved in any way.

# **CONSULTATIONS:**

Public consultations on Muskrat Falls have been ongoing for a period of years. The most prominent of these have been the extensive public hearings held by the Environmental Assessment Joint Review Panel and public hearings held by the PUB. These public hearings have covered all areas of interest in project development including need and purpose, project scope, environmental impacts, social and cultural impacts, aboriginal impacts, and economic impacts to both tax payers and rate payers. Government has not held its own public consultations in addition to these.

# **ENVIRONMENTAL CONSIDERATIONS:**

In March 2012, the Governments of Canada and Newfoundland and Labrador released the Lower Churchill Generation Project from the environmental assessment process while committing to ensure the implementation of mitigation measures to reduce the adverse environmental impacts identified by the Joint Review Panel.

The environmental assessment process is still ongoing for the LIL and the Maritime Link. Nalcor registered the LIL for environmental assessment in February 2009 and the process is ongoing. The Environmental Impact Statement (EIS) Guidelines were issued in May 2011 and in April 2012, Nalcor submitted its EIS. Throughout the Summer of 2012, Nalcor has continued to submit component studies and additional information.

The ML environmental assessment undertaking was registered on December 1, 2011 and the process is ongoing. Final EIS Guidelines were issued on October 15, 2012 and proponents will proceed to develop and submit the EIS documentation in coming months.

# **RURAL LENS:**

The exact location of the LIL and Maritime Link will be determined following the environmental assessment process; however, both will pass through rural areas of the province. Private land interests will be expropriated in rural areas. There may be indirect positive impacts however, from a major construction project passing through rural areas such as increased employment and increased business in adjacent towns as workers may require the services of such towns. Rural areas may also benefit from construction employment for both the generation and transmission projects.

# **COMMUNICATIONS AND CONSULTATION SYNOPSIS:**

Attached as Annex A.

Jerome P. Kennedy, Q.C. Minister of Natural Resources

5 December 2012

Annex A - Communications and Consultations Synopsis

# **ANNEX A**

# COMMUNICATIONS PLAN Department of Natural Resources

**Issue:** Whether to make a decision to sanction the Muskrat Falls Project

Consulted:	Drafted:	Announcement:
Charles Bown, Deputy	December 5, 2012	December 7, 2012
Minister, Department of		
Natural Resources		

# **Communications Analysis**

## **Public Environment**

In October 2012, the Provincial Government released the Decision Gate 3 (DG3) cost estimate for Muskrat Falls along with a report by Manitoba Hydro International Limited (MHI). The MHI report confirmed the engineering, costs and project planning completed by Nalcor Energy (Nalcor) and endorsed the project as the least-cost solution for electricity generation in Newfoundland and Labrador. The report examined the most up-to-date information on load forecasts, new generation plans and revised cost estimates including capital costs, operating costs, financing costs, fuel and interest and confirms that there is a \$2.4 billion preference in 2012 dollars for Muskrat Falls over the Holyrood or the Isolated Island option.

The decision to sanction Muskrat Falls follows on the province's success with the Government of Nova Scotia at securing a final agreement for a federal loan guarantee for the Lower Churchill hydroelectric projects from the Government of Canada. The loan guarantee will provide projected savings of approximately one billion dollars for ratepayers in Newfoundland and Labrador through reduced interest rates.

The House of Assembly opened November 19, 2012 and Muskrat Falls dominated Question Period. Continued calls were made to send the project back to the Board of Commissioners of Public Utilities (PUB). Questions focused on project cost and overruns, debt, pre-sanction work and money spent by Nalcor and methyl mercury concerns. A private members motion was passed in the House of Assembly on December 5, 2012 in support of the Muskrat Falls project.

# **Strategic Considerations**

 Despite release of the MHI report and numerous other reports completed by independent experts and the Department of Natural Resources, critics

- continue to say that there is not enough information available on the project.
- Questions have been raised on the perceived independence of consultants who completed numerous reports on the project and critics, most notably Energy 2041, have called for another independent reviewer to evaluate these reports.
- Criticism continues to be raised over the lack of regulatory oversight by the PUB on the project.
- Since obtaining the federal loan guarantee, government has been criticized for expediting the process to make a decision on sanction.
- Criticism continues to be raised over the fact that the project is percieved as being done already long before official sanction.
- Criticism for having no debate in the House of Assembly on the project.
- Criticism on the introduction of legislation that will address the financing of the project and complex issues.
- Questions raised regarding Emera's role as it relates to the Maritime Link
- Government has been criticized for not consulting with the Nunatusaviut Government
- Questions as to how can the province sanction if the Mritime Link and Labrador Island are going through Eap
- Supportive of the finance-raisign process and keeping the project on shcedule criticism that government is doing this to satisfy the bankers
- Sanction before the UARB decision+
- The introduction of an omnibus Muskrat Falls bill and the grouping of amendments may raise suspicions by the Official Opposition, opponents to the project, media, and the public. Majority of the amendments are substantive in nature and require careful decision and debate. It maybe perceived that government is trying to rush the project, hinder meaningful debate on the project, and hide certain information related to the project.
- Criticism continues to be raised on Nalcor's perceived level of transparency and accountability as it relates to Muskrat Falls. Nalcor and government will be engaged in the preparation of these amendments, and will need to be prepared to respond to continued project criticism.
- Government's decision to grant an extension to the Board of Commissioners of Public Utilities (PUB) to complete their independent review of Muskrat Falls been heavily criticized. Critics have stated that government restricted the PUB's ability to complete a thorough review and limit its scope of work through the Terms of Reference. The PUB has concluded that based on the information available, they were unable to make a determination if Muskrat Falls is the least-cost option to respond to future power needs on the Island, and would require information from the DG3 process to make a conclusion. As such, limiting oversight may be cited as another effort by government to interfere with the PUB's ability to review the project.

# **Target Audiences**

#### Internal

- Premier's Office
- Executive Council
- Department of Natural Resources
- Department of Justice
- Department of Finance
- MHAs

#### External

- Nalcor Energy
- Emera
- Government of Canada
- Media
- Public
- Opposition

# **Consultations**

Consultations on the proposed amendments have taken place with all government departments.

Nalcor has been consulted on the decision.

No public consultations are planned or required.

# **Communications Objectives**

• To clearly articulate government's rationale for making a decision to sanction the development of Muskrat Falls.

# Communications Strategy

#### **Key Messages**

- Newfoundland and Labrador needs a new source of electricity generation because demand for electricity on the Island will exceed supply in the near future.
- Newfoundland and Labrador Hydro's (NLH) Planning Load Forecast indicates that by 2015 the province will be challenged to reliably meet peak demand in

winter months and, post-2019, there will not be sufficient energy supply to reliably meet demand through the year.

- We expect continued growth in the economy driven by major investments in natural resource projects, an increase in the number of households in the province, and new developments in the commercial and industrial sectors.
- Planning for future energy needs is essential and has to be undertaken now, and responsible governance demands that this be done.
- The development of Muskrat Falls will be a significant source of renewable electricity generation for Newfoundland and Labrador. The development will meet the province's increasing energy needs, ensure stable electricity rates for residents and businesses, support industrial development in Labrador, and will provide tremendous economic, employment and social benefits for the people of Newfoundland and Labrador.
- The development of Muskrat Falls represents a pivotal opportunity for Newfoundland and Labrador to transform itself from a non-renewable resource economy, to one that will secure a sustainable economic base for many years to come.
- The Provincial Government continues to work towards a decision on sanction and welcomes the introduction and passage of a private members motion in the House of Assembly which is an opportunity for all parties to voice their opinion on the project.

The Muskrat Falls development will secure long-term stable electricity rates for residents and business at the lowest cost possible. Electricity will be available for large-scale mining in Labrador and further industrial development in the province while securing a link to North America's electricity grid for export opportunities.

The project will generate approximately 98 per cent of its electricity from clean renewable sources. The Holyrood facility is 40 years old and continued use means escalating maintenance and upgrades, installation of emissions control equipment, and continued dependency on fossil fuel generation. Muskrat Falls will eliminate the province's reliance on fossil fuels and volatile oil prices which contributes to an increase in electricity prices for ratepayers.

In addition, Muskrat Falls will generate significant employment and economic benefits for the people of Newfoundland and Labrador. The project will provide 9,100 person-years of direct employment including 5,800 in Labrador. The province will see 1.9 billion in income to labour and business, as well as 320

million in average income benefits per year and \$290 million in taxes to the Government of Newfoundland and Labrador.

The Announcement (and activities)

An event to announce the decision on sanction is being planned for the lobby of Confederation Building on Friday, December 7 at 12:00 p.m. noon.

Minister's Involvement

Minister Kennedy will emcee the event.

**Interdepartmental Coordination** 

The Department of Natural Resources will coordinate materials with the following - Premier's Office, Executive Council, the Department of Justice, the Department of Finance, and the Intergovernmental and Aboriginal Affairs Secretariat.

Materials will be coordinated and shared with Nalcor.

Briefing of Members of the House of Assembly

**Internal Communications** 

A news release will be developed, along with key messages, speaking notes for the Premier and Minister Kennedy.

Materials will be shared with Nalcor. Ed Martin will be required to speak to the decision on sanction on Nalcor's behalf.

Follow-up Activities

Monitoring of media and public response to the decision on sanction.

Media inquiries will be coordinated and handled by the Premier's Office/ Department of Natural Resources/Nalcor Energy.

**Evaluation Criteria** 

N/A

Budget

N/A

Page 22ec. 6, 2012

Able Malone Johnson

NR 2012 
NR 2012 
Title: Sanction Decision on the Muskrat Falls Project

ISSUE:

Whether to sanction the Muskrat Falls Project at this time.

# **RECOMMENDATION(S):**

It is recommended that Cabinet:

- Authorize Nalcor Energy to sanction and proceed with the development of the <u>Muskrat Falls Projects</u>, including the Muskrat Falls Plant, Labrador Transmission Assets, Labrador-Island Link and Maritime Link.
- 2) Authorize the Department of Finance to make base equity contributions to the project in accordance with the financing structure (debt/equity) determined on financial close and to make contingent equity contributions as required to bring the project in service.

# **BACKGROUND:**

Government's 2007 Energy Plan identifies the Lower Churchill Project as a significant opportunity to "increase the amount of clean, renewable energy produced in the province, reduce the Island's reliance on fossil fuels, and provide rate stability and certainty for the people of the province." As such, Government committed to lead the development of the Lower Churchill Project through Nalcor to realize a renewable future and to meet the province's energy needs with, "environmentally friendly, stable, competitively priced power."

Since that time, Nalcor has been actively pursuing the development of the Lower Churchill Project on a number of fronts to meet the long-term energy needs of the province. For example, Nalcor has attempted to gain access through Quebec's transmission system for the Lower Churchill Project but these efforts have not proved successful, resulting in regulatory rulings, appeals and ultimately a court challenge.

In the meantime, simultaneous to pursuing the Lower Churchill Project and pending a sanction decision, Nalcor has maintained a second generation expansion plan that includes continued reliance on the Holyrood Thermal Generating Station in conjunction with small hydro and wind (Isolated Island option).

In July 2010, as part of its mandate to provide the least cost supply of power to customers, Newfoundland and Labrador Hydro (NLH) released its annual Generation Planning Forecast which is a comprehensive 20-year load forecast to determine the province's expected electricity consumption. In its report, NLH highlighted an expected energy capacity deficit in 2015, with a firm energy shortage emerging post-2019. This finding necessitated a decision on the preferred next source of generation to meet the province's long-term energy needs.

As a result, Nalcor examined options to address these shortfalls and determined that there were two acceptable alternatives for consideration: 1) the Isolated Island option; and 2) the interconnected Island option – Muskrat Falls generating station with a HVDC link connecting the Island to the North American grid (Muskrat Falls). Nalcor subsequently determined that Muskrat Falls was the least-cost alternative by a Cumulative Present Worth (CPW) of \$2.2 billion and recommended that this option be pursued as the next source of generation to meet the long-term energy needs of the province.

In November 2010, Nalcor and Emera Inc. of Nova Scotia announced a partnership to develop Muskrat Falls and the Maritime Link that would connect the Island to Nova Scotia. In exchange for building the Maritime Link, and investing in the Labrador-Island Link, Nalcor would deliver 20% of the output of Muskrat Falls to Emera for a period of 35 years. Since that time, there have been a significant milestones achieved in relation to Muskrat Falls.

#### Muskrat Falls Assessments

The conclusion that Muskrat Falls is the lowest-cost option to meet the province's future electricity needs from the period 2017 to 2067 has been verified by a number of independent experts. In 2011, Nalcor engaged Navigant Consulting who concluded that based on DG2 numbers, the \$2.2 billion preference for the Interconnected Island alternative is "a reasonable estimate of the expected cost difference between the two alternatives."

In June 2011, Government submitted a reference question to the Board of Commissioners of Public Utilities (PUB) asking it to determine which of the two generation expansion options under consideration was the least cost over the period from 2011 to 2067. While the PUB was non-definitive in its review of the two options, its own expert, Manitoba Hydro Inc. (MHI) did conclude that based on Nalcor's inputs, the CPW estimates for each option were correct and that Muskrat Falls was the least-cost option when compared with the Isolated Island alternative. Additionally, as part of the PUB review, the Consumer Advocate engaged Knight Piesold Consulting and ultimately agreed with MHI's assessment that Muskrat Falls represented the least-cost option of the two alternatives.

Furthermore, Natural Resources Canada (NRCan) conducted an analysis of both options and found that Muskrat Falls was the lower cost option. As well, Dr. Wade Locke, Professor of Economics at Memorial University, concluded that based on Nalcor's inputs, Muskrat Falls was the least cost alternative.

More recently, MHI was engaged by Government to assess updated Muskrat Falls cost estimates (Decision Gate 3 numbers), which include the benefit of the Federal Loan Guarantee (discussed later in the paper), and concluded that Muskrat Falls was the least-cost option to meet the province's electricity needs, with a CPW difference of \$2.4 billion.

In addition to assessments to determine if Muskrat Falls was the least-cost option when compared with the Isolated Island option, there have been several studies to determine the viability of other long-term generation alternatives to Muskrat Falls. For example, both Hatch and MHI assessed how much additional wind generation could be added to the isolated Island system from both an economic and technical perspective and

concluded that the maximum penetration of wind in the Isolated Island scenario was 10% of total generation which equates to no more than 300 MW in 2035. MHI further concluded that the CPW analysis favours Muskrat Falls over the Isolated Island option even when the maximum penetration of wind was incorporated.

Ziff Energy completed two separate studies on the potential for natural gas to meet the province's future energy needs. With respect to landing domestic natural gas from the Grand Banks, it concluded that capital costs to develop Grand Banks natural gas are high and the return on investment would be below industry thresholds. For this reason, it concluded that landing Grand Banks gas to feed thermal generation is an unlikely scenario due to uneconomic returns. Ziff Energy's report on the importation of Liquefied Natural Gas (LNG) for electricity generation was completed in the fall of 2012 and found that the price for doing so, at nearly \$25 per thousand cubic feet, would be prohibitively expensive. Ziff also concluded that relying on LNG would expose NL electricity consumers to supply risk in winter months, and ultimately concluded that LNG was not a viable alternative as an energy source for thermal electricity generation in NL.

The Department of Natural Resources (NR) also completed a series of public reports related to Muskrat Falls, including two focused on potential alternatives. The first was an explanation of why Muskrat Falls was chosen instead of Gull Island. The report concluded that although NL would prefer to proceed with Gull Island, without transmission access to export markets through Quebec, it is not feasible at this time. Gull Island has 2,250 MW of generating capacity, far more than NL will require in the foreseeable future, and therefore export of surplus power would be required.

A second report addressed the alternative of waiting until 2041 when the Upper Churchill Power Contract expires. The report explained that CFLCo is owned by NLH and Hydro Quebec (HQ) jointly and for this reason, NLH will not have absolute authority over the corporate actions of CFLCo and it cannot be assumed that Newfoundland and Labrador will receive cheap or free power in 2041. Additionally, it is doubtful that the Holyrood Generating Station could continue to provide reliable power for the required time period. Furthermore, waiting for 2041 will mean increased reliance on oil and consequently more volatile prices for electricity and would also prevent the province from capitalizing on opportunities for export sales and/or industrial development. For

these reasons, the report concludes that waiting until 2041 is not a practical alternative to developing Muskrat Falls now.

The benefits stemming from Muskrat Falls have also been assessed. Muskrat Falls will provide a stable, competitively priced source of energy for generations and will also generate significant economic benefits through substantial employment and income to businesses. Muskrat Falls will also potentially facilitate mining expansion by providing power for new mines, expansions of existing mines, and re-activation of former mines. NR released a report concluding that Muskrat Falls would be an important source of power for mining developments in Labrador after 2017 and that sanctioning the project may assist mining companies in making positive investment decisions. This conclusion was supported by Dr. Wade Locke in his report, Economic Impact Analysis of Iron Ore Mining Industry in Labrador. Dr. Locke reviewed a number of scenarios and showed that over the next 21 years, mining in Labrador could see anywhere from \$7.4 to \$33.5 billion in capital expenditures, annual average GDP impacts of \$2.1 to \$6.9 billion, and average annual employment of 11.3 to 24.5 thousand person-years. Dr. Locke ultimately concluded that economic impacts currently enjoyed from mining could expand by a factor of three if there are no constraints posed by the availability of power and labour.

The province will begin receiving dividends from the Project in 2017. Cumulative dividends in nominal dollars are currently estimated at \$23.5 billion from 2017-2067. Dividends grow from \$15 million in 2017 to in excess of \$900 million in 2067 with average dividends of \$469 million per year.

Furthermore, Muskrat Falls will result in significant environmental benefits. NR completed a report that found that completion of the project will allow the decommissioning of the Holyrood Thermal Generating Station and see 98% of the province's electricity come from clean, renewable sources. This would substantially reduce the province's Greenhouse Gas emissions and would lower fossil fuel use at Holyrood by 18,000 barrels of oil per day during peak heating season. This finding has also been confirmed by the Federal Government.

#### Additional Muskrat Falls Milestones

There have been several other milestones achieved since Nalcor's decision that Muskrat Falls was the preferred next source of generation to meet the province's energy needs. In summary:

- In June 2011, members of the Innu Nation overwhelmingly voted in favour of the Innu Land Claims Agreement, the Lower Churchill Impacts and Benefits Agreement, and Upper Churchill Redress Agreement.
- In August 2011, the Governments of Canada, Newfoundland and Labrador and Nova Scotia signed a Memorandum of Agreement (MOA) for the provision of a loan guarantee by the Government of Canada to the Lower Churchill Project (see below).
- In November 2011, the Innu Agreements (referenced above) were officially signed with the Governments of Canada and Newfoundland and Labrador, Nalcor, and the Innu of Labrador.
- In March 2012, the Governments of Canada and Newfoundland and Labrador released the Lower Churchill Generation Project from the environmental assessment process while committing to ensure the implementation of mitigation measures to reduce the adverse environmental impacts identified by the Joint Review Panel. Separate environmental assessments are underway for the LIL and Maritime Link (see Environmental Considerations section).
- In July 2012, Nalcor and Emera completed formal commercial agreements to develop Muskrat Falls and the Maritime Link.
- In October 2012, Government released MHI's report on Decision Gate 3 information which included up-to-date information on load forecasts, fuel price forecasts, defined capital costs, and system integration studies. MHI concluded that Muskrat Falls is the least cost option for meeting future generation requirements in NL and recommended that Nalcor pursue Muskrat Falls.
- In November 2012, all parties announced formal agreement on the amount and term of the Federal Loan Guarantee.

#### Federal Loan Guarantee

As referenced above, in August 2011, Canada, the Province, and Nova Scotia governments' signed a Memorandum of Agreement (MOA) for the provision of a loan guarantee by the Government of Canada to the Lower Churchill Project (includes Muskrat Falls and the Maritime Link).

On November 30, 2012 agreement was reached between all parties on the term and amount of the Federal Loan Guarantee (FLG). In general the FLG only applies to both Muskrat Falls and the Maritime Link and is capped at \$6.3 billion. The term of the FLG is 35 years for the Muskrat Falls Generation Station and the Labrador Transmission Assets, 40 years for the LIL, and 40 years for the Maritime Link. The FLG will lower the costs of borrowing for the proponents, with projected savings of over a billion dollars for ratepayers in Newfoundland and Labrador and Nova Scotia. The FLG is contingent on sanction of both Muskrat Falls and the Maritime Link project.

#### Timing

Nalcor has requested a sanction decision by the end of 2012 in order to maintain the in-service date of 2017 for Muskrat Falls, and also to maintain its financing schedule. Nalcor is currently anticipating approaching lenders to the project in early 2013 pending a sanction decision by the end of 2012. The Maritime Link will be undergoing a regulatory review by Nova Scotia's Utility and Review Board (UARB) however the application has not yet been filed with the UARB. Emera is not required to sanction the Maritime Link until after the UARB completes its review.

# **ALTERNATIVES:**

#### Alternative 1

#### That cabinet:

- Authorize Nalcor Energy to sanction and proceed with the development of the Muskrat Falls Projects, including the Muskrat Falls Plant, Labrador Transmission Assets, Labrador-Island Link and Maritime Link.
- 2) Authorize the Department of Finance to make base equity contributions to the project in accordance with the financing structure (debt/equity) determined on

financial close and to make contingent equity contributions as required to bring the project in service.

#### Advantages:

- Provides certainty required for Nalcor to approach lenders in early 2013.
- Maintains project schedule.
- Project provides least-cost solution for Province's long-term generation requirements.
- Project provides power for export and/or domestic industrial development.
- Project provides significant long-term economic and environmental benefits.

# Disadvantages:

- Maritime Link will be undergoing public review through the NS Utility and Review Board (UARB). Sanctioning prior to the UARB decision may be criticized.
- Neither the LIL or Maritime Link have been released from the respective environmental assessment process. Sanctioning prior to such release may be seen as prejudicing the environmental assessment decision.

# Alternative 2

 Defer sanction decision on the Muskrat Falls Project until a later time. (NOT RECOMMENDED)

# Advantages:

- Provides time to provide further certainty of project costs.
- May allow time for the LIL to be released from the environmental process.
- May allow time for UARB decision which would provide certainty on the Maritime Link project and associated costs.

#### Disadvantages:

- Delays project schedule and may lead to alternative and costly interim solution to address expected energy capacity deficit.
- Prevents Nalcor from approaching lenders in early 2013.
- Government may be questioned on its commitment to the Project.

# Alternative 3

• Do not sanction the Muskrat Falls Project (NOT RECOMMENDED)

## Advantages:

None identified.

#### Disadvantages:

- Requires investment in more expensive generation to meet growing electricity demand.
- Maintains isolated island grid.
- Maintains and increases reliance on thermal generation at Holyrood, with increased emissions.
- Foregoes the opportunity to make the Province's electricity grid 98% clean and renewable.
- Eliminates the opportunity to capitalize on the province's substantial hydro resources in Labrador.
- Does not address power needs for industrial expansion in the province, particularly mining expansion in Labrador.

# **LEGAL / LEGISLATIVE CONSIDERATIONS:**

Project advancement immediately after sanction will require legislative amendments to the Electrical Power Control Act, the Energy Corporation Act, and the Hydro Corporation Act to facilitate financing arrangements. In addition, lands issues will be dealt with through new, stand-alone legislation. Both pieces of legislation have been approved by Cabinet and are expected to be introduced in the Fall 2012 sitting of the House of Assembly.

# **FINANCIAL CONSIDERATIONS:**

For purposes of financing, the project is segregated into Muskrat Falls/Transmission Assets (MF/LTA) and the Labrador Island Link ("LIL") (collectively referred to as the Project)

DG3 estimates the total capital cost of the project at \$6.2 billion. This estimate includes MF costs of \$2.9B; LTA costs of \$0.7B and the LIL at \$2.6B. The \$6.2B represents the total cost to the Province and Nalcor and excludes interest during construction and financing costs. Note that Emera stated in 2010 that it would invest \$1.2B in the Maritime Link for a total estimated project cost of \$7.4B. Emera's will release their final cost estimates on the ML in the near term, and have recently stated they would be in the range of \$1.3-\$1.5B.

The project will be financed through a combination of 1) an equity investment from the Government of Newfoundland and Labrador ("GNL") and 2) project debt financing by Nalcor.

The Nalcor project debt will be non-recourse financing. The non-recourse structure will mean the project assets will be pledged as security, but that neither Nalcor nor Government would be liable nor would any non-project assets be at risk in the event of default. This approach is commonly used in the energy and infrastructure sectors, where project sponsors provide the equity and lenders provide non-recourse loans that are serviced from project cash flows; in this case the debt will be serviced from the revenue generated from the sale of Muskrat Falls power.

To facilitate the financing of the project, Government provided a commitment letter to Nalcor in October 2011 that outlined its objectives and intentions in support of the project. This letter committed the Government to provide an equity investment in the

Project, including the amount determined during the financing process (Base Equity) and to provide any additional equity required to ensure project completion (Contingent equity).

The Government also committed to ensure that NLH regulated rates provides sufficient revenue in each year to recover all project costs.

The Province's commitment was critical in Phase I of Nalor's finance raising process which was completed in November 2011. This process consisted of Nalcor meeting with the rating agencies to receive a shadow credit rating based on all technical and financial project information available at that time (based on DG2 estimates). A shadow credit rating is a confidential credit rating used to get an indication of the level of risk and credit worthiness that capital markets associate with a projects debt. In this first phase, Nalcor received a strong investment grade shadow credit rating from all three rating agencies- S&P, Moody's and DBRS. The rating agencies noted the importance of Government's support in the rating analysis.

The finance process also includes executing a term sheet for a federal loan guarantee ("FLG"). The term sheet for the FLG was signed in November 2012. The FLG will be a guarantee against \$5.0 billion of the Nalcor project financing debt (MF/LTA up to \$2.6 billion and LIL up to \$2.4 billion) and will not include any debt that is raised by the Province to finance its equity investment in the project.

The federal loan guarantee will lower the cost of the project debt and these savings will be passed directly to the ratepayers through lower electricity rates.

To support a Sanction decision and completion of the FLG, officials from Government and Nalcor met with the rating agencies in October 2012 to obtain an updated credit rating.

Since the November 2011 rating, significant progress was achieved on engineering (now 50% complete); DG3 capital costs have now been finalized, business case has been updated, progress has been made on NL legislative commitments; financing plans have been updated; the Federal loan guarantee had progressed (FLG term sheet executed subsequent to the October 2012 meeting with rating agencies); and Emera agreements have been finalized. The rating agencies were updated on each of these

elements. All three rating agencies have maintained the ratings that were provided in November 2011.

# Nalcor Financing Summary

Project financing is currently being based on a capital structure for LIL at 75:25 debt to equity and 65:35 debt/equity for the MF/LTA.

Nalcor is in consultation with its relationship banks on market conditions and key financing parameters. The financing will be denominated in Canadian dollars. The debt on the MF/LTA will be for 30 years and the LIL debt will be for a term of 50 years.

The path to financial close for the Nalcor Financing includes the following activities:

- Updated credit ratings resulting from the November 2012 presentations to rating agencies (complete)
- Finalization of the FLG (complete)
- NL Undertakings Implemented (Legislation to be tabled in the House)
- MF, LTA and LIL Sanction
- LIL Environmental Assessment Release
- Preparation for and approach to capital markets
- Fundraising process/Final Due Diligence and Agency Ratings
- Financial Close expected Q4 2013

Note that final ratings will be received for the Project before going to the capital market. Note also that certain of the above terms and conditions may be revised as Nalcor progresses towards financial close in Q4 2013.

#### NL Government Equity Contribution

In addition to the financing process outlined above to place the Nalcor project debt, the GNL has committed to providing the base and contingent equity to complete the project. The Province's equity investment to date is \$290 million and cumulative equity investment before financial close (Q4 2013) is expected to be \$900 million. The total equity requirement is expected to be in the range of \$2.0B-\$2.2B depending on the financing option chosen. This estimate does not factor in Emera's participation. If we factor in Emera's participation, the equity requirement would be in the range of \$1.6B to

\$1.8B. Nalcor is in consultation with its relationship banks on market conditions and key financing parameters. The financing will be denominated in Canadian dollars. The debt on the MF/LTA will be for 30 years and the LIL debt will be for a term of 50 years.

Government will fund its equity contribution in the project primarily from debt. Given the Province's favorable credit ratings, its extended absence from the new issuance market (since 2004 for operational purposes), and the known demand for its name, the required amount of debt should be easily accessible through conventional capital markets.

The borrowing approach will be determined as the project proceeds and will include factors such as future cash flow expectations/requirements and probability of cost over-run risks.

It is the clear opinion of the Province's financial advisors that the required funds can be easily raised in Canadian capital markets through the issuance of provincial government bonds of a plain vanilla nature that will appeal to a wide range of potential investors.

The financial analysis also shows that the free cash flow that will be returned to the Province through dividends from the Muskrat Falls project will be more than sufficient to meet debt servicing requirements. The Muskrat Falls Project will diversify the province's revenue base with a renewable stable revenue stream.

#### Net debt

The Province's investment in Muskrat Falls does not impact net debt. While the province may incur debt to finance a portion of the equity investment, it also has an offsetting asset to record- therefore there is no impact on net debt. The Muskrat Project assets are revenue generating assets. Excess revenues above the amount required to service the debt would be available to the Province.

# **INTERDEPARTMENTAL CONSIDERATIONS:**

NR has consulted extensively with other departments including JUS, FIN, ENVC, SNL, MA, TW, and IGAA throughout various stages of project advancement. Concerns have been addressed and incorporated in enabling legislation and policy decisions insofar as possible. Issues have been acknowledged as each element of the project has come

forward to cabinet (or will come forward in the future) and cabinet will be fully informed on the position of various departments.

# **LABRADOR OR ABORIGINAL CONSIDERATIONS:**

The project will impact Aboriginals and other peoples of Labrador. In June 2011, members of the Innu Nation overwhelmingly voted in favour of the Innu Land Claims Agreement, the Lower Churchill Impacts and Benefits Agreement, and Upper Churchill Redress Agreement. In November 2011, these Innu Agreements were officially signed with the Governments of Canada and Newfoundland and Labrador, Nalcor, and the Innu of Labrador.

# **INTERGOVERNMENTAL CONSIDERATIONS:**

Negotiations and consultations between NL, NS, and Canada (along with Nalcor and Emera) have been extensive. On November 30, 2012 agreement was reached between all parties on the term and amount of the Federal Loan Guarantee (FLG).

# OTHER JURISDICTIONS:

As Emera, a privately-owned NS utility, is a primary partner in the project, the Government of NS has been involved during various phases of project advancement. NS's UARB is currently reviewing the Maritime Link portion of the project.

The project will also have substantial benefits for other jurisdictions. In exchange for its financing of the Maritime Link, Emera will receive a block of power for its distribution in NS or elsewhere. This will provide financial return for Emera and at the same time provide for displacement of thermal generating capacity in Nova Scotia with clean, renewable energy from Muskrat Falls. Similarly, electricity that is surplus to NL's needs will be sold in export markets, enhancing Nalcor's (and thus the province's) financial returns and also displacing thermal generating capacity in other jurisdictions.

Hydro-Quebec has taken advantage of public hearings during the environmental review process to criticize the EIS Guidelines, saying that they were not stringent enough and that the Muskrat Falls project would not be undergoing as thorough a review as Hydro-Quebec's own hydroelectric project had. The Quebec government has also sharply

criticized the Federal Loan Guarantee of the project, arguing that it amounted to an unfair subsidy of a project that will compete with hydro-electric power from Quebec. Quebec further argues that transmission is an area of provincial jurisdiction and that the Federal Government should not be involved in any way.

# **CONSULTATIONS:**

Public consultations on Muskrat Falls have been ongoing for a period of years. The most prominent of these have been the extensive public hearings held by the Environmental Assessment Joint Review Panel and public hearings held by the PUB. These public hearings have covered all areas of interest in project development including need and purpose, project scope, environmental impacts, social and cultural impacts, aboriginal impacts, and economic impacts to both tax payers and rate payers. Government has not held its own public consultations in addition to these.

# **ENVIRONMENTAL CONSIDERATIONS:**

In March 2012, the Governments of Canada and Newfoundland and Labrador released the Lower Churchill Generation Project from the environmental assessment process while committing to ensure the implementation of mitigation measures to reduce the adverse environmental impacts identified by the Joint Review Panel.

The environmental assessment process is still ongoing for the LIL and the Maritime Link. Nalcor registered the LIL for environmental assessment in February 2009 and the process is ongoing. The Environmental Impact Statement (EIS) Guidelines were issued in May 2011 and in April 2012, Nalcor submitted its EIS. Throughout the Summer of 2012, Nalcor has continued to submit component studies and additional information.

The ML environmental assessment undertaking was registered on December 1, 2011 and the process is ongoing. Final EIS Guidelines were issued on October 15, 2012 and proponents will proceed to develop and submit the EIS documentation in coming months.

# **RURAL LENS:**

The exact location of the LIL and Maritime Link will be determined following the environmental assessment process; however, both will pass through rural areas of the province. Private land interests will be expropriated in rural areas. There may be indirect positive impacts however, from a major construction project passing through rural areas such as increased employment and increased business in adjacent towns as workers may require the services of such towns. Rural areas may also benefit from construction employment for both the generation and transmission projects.

# **COMMUNICATIONS AND CONSULTATION SYNOPSIS:**

Attached as Annex A.

Jerome P. Kennedy, Q.C. Minister of Natural Resources

5 December 2012

Annex A - Communications and Consultations Synopsis

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# **ANNEX A**

# COMMUNICATIONS PLAN Department of Natural Resources

Issue: Whether to make a decision to sanction the Muskrat Falls Project

Consulted:	Drafted:	Announcement:
Charles Bown, Deputy	December 5, 2012	December 7, 2012
Minister, Department of		
Natural Resources		
	}	

#### **Communications Analysis**

#### Public Environment

In October 2012, the Provincial Government released the Decision Gate 3 (DG3) cost estimate for Muskrat Falls along with a report by Manitoba Hydro International Limited (MHI). The MHI report confirmed the engineering, costs and project planning completed by Nalcor Energy (Nalcor) and endorsed the project as the least-cost solution for electricity generation in Newfoundland and Labrador. The report examined the most up-to-date information on load forecasts, new generation plans and revised cost estimates including capital costs, operating costs, financing costs, fuel and interest and confirms that there is a \$2.4 billion preference in 2012 dollars for Muskrat Falls over the Holyrood or the Isolated Island option.

The decision to sanction Muskrat Falls follows on the province's success with the Government of Nova Scotia at securing a final agreement for a federal loan guarantee for the Lower Churchill hydroelectric projects from the Government of Canada. The loan guarantee will provide projected savings of approximately one billion dollars for ratepayers in Newfoundland and Labrador through reduced interest rates.

The House of Assembly opened November 19, 2012 and Muskrat Falls dominated Question Period. Continued calls were made to send the project back to the Board of Commissioners of Public Utilities (PUB) with questions focused on project cost and overruns and debt, pre-sanction work, money spent by Nalcor to date, and methyl mercury concerns. A private members motion was passed in the House of Assembly on December 5, 2012 in support of the Muskrat Falls project.

#### Strategic Considerations

 Despite release of the MHI report and numerous other reports completed by independent experts and the Department of Natural Resources, critics continue to say that there is not enough information available on the project.

- Questions have been raised on the perceived independence of consultants who completed numerous reports on the project and critics, most notably Energy 2041, have called for another independent reviewer to evaluate these reports.
- Criticism continues to be raised over the lack of regulatory oversight by the PUB on the project.
- Since obtaining the federal loan guarantee, government has been criticized for expediting the process to make a decision on sanction.
- Criticism continues to be raised over the fact that the project is percieved as being done already long before official sanction.
- Criticism for having no debate in the House of Assembly on the project.
- Criticism on the introduction of legislation that will address the financing of the project and complex issues.
- Questions raised regarding Emera's role as it relates to the Maritime Link
- Government has been criticized for not consulting with the Nunatusaviut Government
- Questions as to how can the province sanction if the Mritime Link and Labrador Island are going through Eap
- Supportive of the finance-raisign process and keeping the project on sheedule criticism that government is doing this to satisfy the bankers
- Sanction before the UARB decision+
- The introduction of an omnibus Muskrat Falls bill and the grouping of amendments may raise suspicions by the Official Opposition, opponents to the project, media, and the public. Majority of the amendments are substantive in nature and require careful decision and debate. It maybe perceived that government is trying to rush the project, hinder meaningful debate on the project, and hide certain information related to the project.
- Criticism continues to be raised on Nalcor's perceived level of transparency and accountability as it relates to Muskrat Falls. Nalcor and government will be engaged in the preparation of these amendments, and will need to be prepared to respond to continued project criticism.
- Government's decision to grant an extension to the Board of Commissioners of Public Utilities (PUB) to complete their independent review of Muskrat Falls been heavily criticized. Critics have stated that government restricted the PUB's ability to complete a thorough review and limit its scope of work through the Terms of Reference. The PUB has concluded that based on the information available, they were unable to make a determination if Muskrat Falls is the least-cost option to respond to future power needs on the Island, and would require information from the DG3 process to make a conclusion. As such, limiting oversight may be cited as another effort by government to interfere with the PUB's ability to review the project.

#### Internal

- Premier's Office
- Executive Council
- Department of Natural Resources
- Department of Justice
- Department of Finance
- MHAs

#### External

- Nalcor Energy
- Emera
- Government of Canada
- Media
- Public
- Opposition

#### Consultations

Consultations on the proposed amendments have taken place with all government departments.

Nalcor has been consulted on the decision.

No public consultations are planned or required.

#### **Communications Objectives**

• To clearly articulate government's rationale for making a decision to sanction the development of Muskrat Falls.

# Communications Strategy

#### **Key Messages**

- Newfoundland and Labrador needs a new source of electricity generation because demand for electricity on the Island will exceed supply in the near future.
- Newfoundland and Labrador Hydro's (NLH) Planning Load Forecast indicates that by 2015 the province will be challenged to reliably meet peak demand in winter months and, post-2019, there will not be sufficient energy supply to reliably meet demand through the year.

- We expect continued growth in the economy driven by major investments in natural resource projects, an increase in the number of households in the province, and new developments in the commercial and industrial sectors.
- Planning for future energy needs is essential and has to be undertaken now, and responsible governance demands that this be done.
- The development of Muskrat Falls will be a significant source of renewable electricity generation for Newfoundland and Labrador. The development will meet the province's increasing energy needs, ensure stable electricity rates for residents and businesses, support industrial development in Labrador, and will provide tremendous economic, employment and social benefits for the people of Newfoundland and Labrador.
- The development of Muskrat Falls represents a pivotal opportunity for Newfoundland and Labrador to transform itself from a non-renewable resource economy, to one that will secure a sustainable economic base for many years to come.
- The Provincial Government continues to work towards a decision on sanction and welcomes the introduction and passage of a private members motion in the House of Assembly which is an opportunity for all parties to voice their opinion on the project.

The Muskrat Falls development will secure long-term stable electricity rates for residents and business at the lowest cost possible. Electricity will be available for large-scale mining in Labrador and further industrial development in the province while securing a link to North America's electricity grid for export opportunities.

The project will generate approximately 98 per cent of its electricity from clean renewable sources. The Holyrood facility is 40 years old and continued use means escalating maintenance and upgrades, installation of emissions control equipment, and continued dependency on fossil fuel generation. Muskrat Falls will eliminate the province's reliance on fossil fuels and volatile oil prices which contributes to an increase in electricity prices for ratepayers.

In addition, Muskrat Falls will generate significant employment and economic benefits for the people of Newfoundland and Labrador. The project will provide 9,100 person-years of direct employment including 5,800 in Labrador. The province will see 1.9 billion in income to labour and business, as well as 320 million in average income benefits per year and \$290 million in taxes to the Government of Newfoundland and Labrador.

The Announcement (and activities)

An event to announce the decision on sanction is being planned for the lobby of Confederation Building on Friday, December 7 at 12:00 p.m. noon.

Minister's Involvement

Minister Kennedy will emcee the event.

Interdepartmental Coordination

The Department of Natural Resources will coordinate materials with the following - Premier's Office, Executive Council, the Department of Justice, the Department of Finance, and the Intergovernmental and Aboriginal Affairs Secretariat.

Materials will be coordinated and shared with Nalcor.

Briefing of Members of the House of Assembly

Internal Communications

A news release will be developed, along with key messages, speaking notes for the Premier and Minister Kennedy.

Materials will be shared with Nalcor. Ed Martin will be required to speak to the decision on sanction on Nalcor's behalf.

Follow-up Activities

Monitoring of media and public response to the decision on sanction.

Media inquiries will be coordinated and handled by the Premier's Office/ Department of Natural Resources/Nalcor Energy.

**Evaluation Criteria** 

N/A

**Budget** 

N/A





MC2012

NR/DM FIN/DM TB/Secretary E Martin/Nalcor AG Deputy Clerk File NR2012-

The submission of the Minister of Natural Resources respecting Sanction Decision on the Muskrat Falls Project was considered.

The following direction was provided:

- 1) Approval was given to Nalcor Energy to sanction and proceed with the development of the Muskrat Falls Projects, including the Muskrat Falls Plant, Labrador Transmission Assets, Labrador-Island Link and Maritime Link;
- 2) Approval was given to the Department of Finance to make base equity contributions to the Muskrat Falls Projects in accordance with the proposed debt / equity financing structure, with such base equity to be the primary source of financing up to financial close. Subsequent to financial close, the debt / equity structure of the Muskrat Falls Projects will be rebalanced in accordance with the final financing structure; and
- 3) Approval was given to the Department of Finance to make contingent equity contributions as required to bring the Muskrat Falls Projects into service.

Deputy Clerk of the Executive Council