



Presentation to Cabinet

Muskrat Falls Project Sanction

Natural Resources

December 6, 2012

Why Muskrat Falls?



- The 2007 Energy Plan identified Lower Churchill as an opportunity for clean power, less fossil fuels, and rate stability.
- Newfoundland and Labrador Hydro's (NLH) 2010 Generation Planning Forecast identifies an expected energy capacity deficit in 2015 and a firm energy shortage emerging post-2019.
- Nalcor screened potential options and identified two acceptable solutions:
 - **Isolated Island Option** – refurbish and upgrade Holyrood, invest in maintaining existing island grid.
 - **Interconnected Island Option (Muskrat Falls)** – Muskrat Falls with HVDC link connecting the island to the North American grid.
- Nalcor determined that Muskrat Falls was the least cost.
- In November 2010, Nalcor and Emera announced a partnership to develop Muskrat Falls and a Maritime Link connecting NL to NS.

Verifying Least Cost



- Numerous experts concur with Nalcor that Muskrat Falls is least cost:
 - Navigant Consulting
 - PUB would not make a determination but its own expert consultant, MHI, concluded that project was least cost
 - Consumer Advocate/Knight Piesold Consulting
 - Natural Resources Canada
 - Dr. Wade Locke
 - MHI (DG3)

Other Alternatives



- Studies have been done to determine the viability of other generation alternatives:
 - **Wind:** Hatch and MHI both determined that maximum technically feasible use of wind was 10% of generation and at this level Muskrat Falls was still least cost.
 - **Natural Gas:** Ziff Energy concluded that landing Grand Banks natural gas and/or importing LNG were not viable energy sources for thermal generation for economic and infrastructure reasons.
- Natural Resources released internal reports on two additional alternatives:
 - **Gull Island:** Prevented by lack of transmission access through Quebec.
 - **Waiting for 2041:** NLH will not have full control of how Upper Churchill power is distributed in 2041.

Muskrat Falls Benefits



- Stable, competitively priced power for generations.
- Significant economic benefits through employment and income to business.
- Encourages potential mining expansion in Labrador – Wade Locke estimates that economic impacts from mining could triple with no power or labour constraints.
- Annual dividends to province beginning 2017 ranging from \$15 million (2017) to over \$900 million (2067). Average of \$450 million per year.
- NR report shows that Muskrat Falls will allow decommissioning of Holyrood for thermal generation and see 98% of province's power from clean, renewable sources. Significantly reduces GHG emissions and saves 18,000 barrels of fuel per day at peak.

Project Cost



- DG3 estimate for total capital cost is \$6.2B:
 - Muskrat Falls Plant: \$2.9B
 - Labrador Transmission Assets: \$0.7B
 - Labrador Island Link: \$2.6B
- Emera will fund Maritime Link at a cost of \$1.3B - \$1.5B range

Project Financing



- Project will be financed through a combination of equity investment from Government and project debt financing by Nalcor.
- Government equity requirement will be in the range of \$1.6B - \$1.8B taking into account Emera's participation.
- Project debt is non-recourse financing – only project assets are pledged. Non-project assets of Nalcor or Government are not at risk.
- A federal loan guarantee has been secured to reduce borrowing costs (\$1 Billion).
- The investment in Muskrat Falls will not impact on the province's net debt.

Next Steps – Post Sanction

CIMFP Exhibit P-00941

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Province

- Pass enabling financing legislation
- Pass enabling lands legislation
- Release equity contributions as required
- Continue with technical elements of implementation

Nalcor

- UARB Application
- Approach lenders to secure financing
- Continue with technical elements of project execution

Emera

- Complete financing arrangements
- Continue with technical elements of project execution

Conclusion



- Project is proven to be least cost
- Creates a 98% clean, renewable grid
- Enormous economic, financial, and environmental benefits
- Risk to Province and Nalcor limited by non-recourse financing structure
- Muskrat Falls is a revenue-generating asset that will pay substantial dividends for years to come – an end to buying foreign oil to generate electricity.



Questions?