

**Date : 4/26/2011 5:03:59 PM**  
**From : "Paddon, Terry"**  
**To : "Constantine, Robert" , "Myrden, Paul"**  
**Subject : Fw: DG3 Note**  
**Attachment : Briefing Note April 26 Draft.docx;**

Yvonne is setting up a meeting for thursday to discuss with charles. Particularly in light of our other note.  
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Executive Council  
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Sent Via BlackBerry

----- Original Message -----  
From: Bown, Charles W.  
To: Paddon, Terry  
Sent: Tue Apr 26 16:26:36 2011  
Subject: RE: DG3 Note

Yes. We need to meet. I've attached the latest version from Derrick today. I'm ok with your Decision note on our independent review; we should advance to Robert for his review.

Charles  
-----Original Message-----  
From: Paddon, Terry  
Sent: Tuesday, April 26, 2011 4:18 PM  
To: Bown, Charles W.  
Subject: DG3 Note

Charles

Do you want me to have yvonne set up a meeting on thursday to discuss the draft note and the implications for our own process?

Please note - I will be on vacation from may 3 to the 10th.

Terry  
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Sent Via BlackBerry

**Briefing Note**

(Draft – for discussion purposes only)

**Confidential and Commercially Sensitive**

**Title:** Muskrat Falls Decision Gate 3 Process and the Necessary Regulatory/Shareholder Undertakings Required to Progress the Lower Churchill Project.

**Issue:** The purpose of this briefing note is to describe the following:

1. The decision process required by Newfoundland and Labrador Hydro (“NLH”) with respect to the next source of Island supply;
2. The historical regulatory approval process for generation and transmission investments;
3. The Decision Gate 3 process and how independent reviews will comprise a key component of project sanction; and
4. The necessary regulatory/shareholder undertakings and other commitments required immediately for the Lower Churchill Project (the “Project”) by Nalcor to facilitate financing and the completion of discussions regarding a federal loan guarantee.

**Overview of Island Supply Decision:**

- Development of the Project is consistent with commitments made in the Energy Plan. The first priority is ensuring current and future power needs are met with environmentally friendly, stable, competitively priced power. To deliver on this priority, the Energy Plan states that development of the Project, including a transmission link between Labrador and the Island, must be considered in the context of Nalcor’s broader resource planning initiatives.
- In July, 2010 NLH submitted a Generation Planning Issues Report to the Public Utilities Board (“PUB”). The report signals a generation planning decision must be made by the end of 2010 for the appropriate planning, approvals and construction to take place to address a capacity deficit on the Island, which is projected to materialize in 2015.
- Nalcor evaluated the practical supply options to address this deficit and meet the Island’s long-term electricity needs. Nalcor determined that Muskrat Falls (“MF”) and a transmission link to the Island provide the least-cost solution and most environmentally friendly solution to meet these needs (the “Infeed Option”). Holyrood oil-fired generation will be replaced with electricity from the Project. The replacement of this facility will reduce greenhouse gas emissions by more than one million tonnes annually, eliminating the Province’s dependence on the supply of imported fuel and remove future volatility in electricity prices. The Project will also eliminate the requirement for additional fossil-fuel generation in the future and avoid associated emissions. The development of MF will meet the energy requirements for both Labrador and the Island for the foreseeable future and will also provide sufficient capacity for future industrial developments in Labrador and throughout the Province.

- By the end of June, 2011 a decision to address projected capacity deficits in 2015 is required. Under the Infeed Option the least cost method to address this deficit is to construct a 50 MW gas turbine as this provides sufficient capacity in the short term to meet utility standards until the Project is completed. Under the status-quo “Isolated Island” alternative this 50 MW gas turbine is not the least cost option as small wind and hydro on the Island which is more expensive in the short-term would be least cost if the Project was not developed. Lack of certainty in the Island supply selection process created by a PUB review of this decision could result in a sub-optimal choice, and thus potentially higher costs for ratepayers, being made to address the 2015 capacity deficit as each Island supply alternative has a different least cost solution to address this deficit.
- As recently noted in Nalcor’s affidavit related to the injunction sought by Nunatukavut Community Council Inc., there will be substantial harm to Nalcor and the Project if completing the PUB review results in a delay in the Project.
  - ❖ Direct financial harm to Nalcor – for each month that the Project is delayed Nalcor will incur direct costs of approximately \$4 to \$5 million, based on current burn rate, related to corporate support, salaries, professional fees, third party fees, travel, office and overhead, suspension or cancellation of vendor or supplier contracts, and insurance and financing
  - ❖ Termination or increased costs of contracts – a delay in the Project in excess of six months will trigger payments pursuant to certain contracts entered into with third parties. In particular, Nalcor’s current agreement with SNC-Lavalin in respect of engineering, procurement, construction and management of the Project (the “SNC-Lavalin Contract”) provides that Nalcor will be directly liable for the costs associated with de-mobilization of SNC-Lavalin’s employees and equipment resulting from a delay. The SNC-Lavalin Contract may be terminated at the option of SNC-Lavalin in the event of a delay of over six months. In the event of termination, Nalcor would be required to retender or renegotiate this contract, which will result in additional time and costs associated with these activities, and the risk that Nalcor may not be able to achieve equally favourable terms.
  - ❖ Loss of key project management team members – if the Project is delayed Nalcor will likely lose key project management team members. In the short term, the Project will retain all of its key project management team members. However, any material delay will increase the risk of loss of key project management team members, or in Nalcor being required to de-mobilize project management team members. Key project management team members that are currently available to work on the Project may not be available in the future due to demand from other large projects in the Province. The loss of project management team members with institutional and Project knowledge and intellectual capital would result in additional recruitment costs to Nalcor, in addition to inefficiencies in restarting the Project work. Any delay in the commencement of construction of the Project (if approved) will likely result in increased costs of critical

construction trades due to overlapping construction timelines with other east coast projects. The increased demand for critical construction trades will have cost, scheduling and safety consequences.

- ❖ Higher financing and insurance costs - a delay of the Project may have a detrimental effect on the profile of the Project in the financial community. This may result in the Project being associated with a higher risk profile. A heightened risk profile would be reflected in higher financing and insurance costs. Further, a delay of the Project may also result in an increase in the level of equity required in the capital structure, requiring additional equity injections of Newfoundland and Labrador public funding.
- ❖ Postponement of key Project timelines - a delay of the Project will result in the postponement of key Project timelines, which are affected by critical timelines for the ordering and delivery of essential components such as turbines and undersea cable, weather and seasonal interruptions, and availability of labour and equipment. A delay in the commencement of the Project will result in rescheduling critical Project timelines.
- As part of the Infeed Option, the Labrador-Island Link ("LIL") requires the awarding of the submarine cable contract for the Strait of Belle Isle ("SOBI") crossing well in advance of the start of manufacturing. Delaying this decision by more than 3 months may result in significant delays to the overall Project. Key points for consideration are as follows:
  - ❖ The Request for Proposal ("RFP") for the SOBI crossing is scheduled to be issued in May 2011, with the Cabot Strait RFP either combined with it or following 4-6 weeks afterwards.
  - ❖ There are only 3 worldwide manufacturers who can meet the technical requirements of the SOBI submarine cable project - each having capacity to manufacture approximately 200-300 km of submarine cable per year.
  - ❖ The SOBI contract is scheduled to be awarded in late 2011 in order to secure the start of submarine cable manufacturing in 2013 (the earliest available slot based on the current worldwide manufacturing log) and a cable laying vessel for June 2015 (the best time of year to commence this work).
  - ❖ Based on current market intelligence, there are a number of major projects competing for the limited worldwide submarine cable manufacturing capacity. If two large projects that are expected to be committed in late 2011 (UK Western Link and Italy-Montenegro) are awarded before the SOBI project, availability for the manufacturing of the submarine cable, as well as the cable laying vessel, could be significantly pushed out.

## **Historical Regulatory Treatment of Generation and Transmission Projects:**

### ***Legislation***

- The Electrical Power Control Act, 1994 (“EPCA”) requires that the PUB ensures that adequate planning occurs for the supply of electricity in the Province.
- The Public Utilities Act (“PUA”) empowers the PUB to approve capital and operating expenditures for utilities, including power purchase expenditures.
- Prior to 1994, the PUB did not pre-approve capital expenditures however the PUB maintained purview over the inclusion of the related costs in rates.
- Section 5.1 of the EPCA permits a direction to be made to the PUB as to rates policies by the Lieutenant-Governor in Council.
- Section 5.2 of the EPCA permits the Lieutenant-Governor in Council, for reasons of public policy, to exempt a utility from the EPCA requirements and a similar section of the PUA (section 4.1) permits exemptions to be ordered from requirements under that Act.

### ***Practices related to Generation Additions***

- The history of the addition of new generating sources to the Province’s electrical system since the EPCA and the PUA became applicable to NLH, show that the provisions requiring PUB approval of planning decisions and related major capital expenditures for new generating sources have been used rarely.
- Two non-utility generators (Star Lake (15 MW) and Rattle Brook (4 MW)) from which NLH purchased power under a tendered bid issued in 1992, were the subject of specific legislative treatment under the Hydro Corporation Act (this treatment continued under the Hydro Corporation Act, 2007 under paragraph 15(3)(c)) under which NLH is specifically entitled to recover through rates the expenses incurred to purchase energy under these power purchase agreements (PPAs).
- Newfoundland Power added a small generating station (Rose Blanche, 6 MW) in 1998 but due to its small capacity and cost, this small addition of generating capacity did not trigger the PUB’s scrutiny from an overall planning role.
- The first major addition to NLH’s generating assets subsequent to the application of the EPCA occurred in 2000 when NLH’s Granite Canal project (41 MW) was made exempt from the EPCA and the PUA through an exemption order. This was largely because the requirement to add this generating source to the system in time to meet NLH’s needs could not have been made in the context of a full EPCA and PUA planning and capital asset hearing on the matter.

- The next two generating sources to be added to the electrical system were also the subject of exemption orders under the EPCA and PUA: the Exploits River incremental energy project at Grand Falls and Bishop's Falls carried out by Abitibi and Fortis; and the Corner Brook Pulp and Paper thermal co-generation project. All energy output from these projects was sold to NLH under PPAs. These projects were made exempt from the planning and rate recovery requirements of the EPCA and of the PUA by exemption orders issued under those Acts.
- In 2000, NLH was, through an exemption order, made the Project exempt from the EPCA and PUA as follows:
  - ❖ the "Labrador Hydro Project" means the planning for, including discussions with potential purchasers or partners, the environmental, economic and engineering study of and, where approved, the design and construction of some or all of: (a) generation and related facilities at Churchill Falls , Labrador; (b) generation and related facilities at Gull Island , Labrador; (c) generation and related facilities at Muskrat Falls, Labrador; (d) dams , dykes or other works required for the generation of power at the sites referred to [the above]; (e) the transmission facilities necessary to deliver power generated at the sites referred to [the above] to the island portion of the province and the border of the Province of Quebec and Labrador; and (f) other facilities related to the activities referred to in paragraphs (a) to (e).
- In 2003, NLH was, through an exemption order, made exempt from the EPCA and PUA for all planning matters relating to a wind demonstration project (this project was, ultimately, not completed).
- Also in 2003, a general rates directive was made to the PUB that costs incurred by NLH with regard to projects for which directives to purchase energy were made, except for the Project, were to be recovered through its rates.
- In 2008 and 2009, respectively, NLH commenced energy purchases from the St. Lawrence and Fermeuse wind farms (each at 27 MW). These power and energy purchases are not the subjects of exemption orders and, therefore, in its next general rates application, NLH will justify these power purchase expenditures on their merits, based primarily upon their attractive energy costs.

### ***Practices in other jurisdictions***

- In many jurisdictions, the regulator has purview over the inclusion of generation and transmission costs in rates, whether by approval of the inclusion of the assets in rate base or by approval of supply agreements of the associated assets as a regulated cost for inclusion in rates.
- The Project is unique given the magnitude of the capital addition as compared to Nalcor's current balance sheet and the cash flow certainty required by non-recourse lenders for debt service. These lenders will require certainty of cash flows as they form the only basis of security/collateral in a non-recourse financing. Subjecting these cash flows to regulatory

uncertainty will negatively impact the amount and cost of debt that will be borne by the ratepayers since the Project is unlikely to receive an investment grade credit rating in this instance.

DRAFT

### **Decision Gate 3:**

#### ***Process Overview***

- Nalcor's Decision Gate process is designed to ensure decisions are made at appropriate times, with the appropriate level of information, and at appropriate levels of expenditure.
- Nalcor's Decision Gate process focuses on key milestones to achieve gateway readiness and builds in "cold eyes" reviews at key decision points throughout the process.
- The Project recently passed through Decision Gate 2 ("DG2") which is Concept Selection. At that time, to select a preferred concept, Nalcor completed the appropriate activities and gathered the required information including field work, engineering and design, finalization of Labrador Innu Impacts and Benefits Agreement ("IBA"), environmental assessment progression, execution of water management agreement, completion of the Emera Term Sheet, financing preparation and economic analysis.
- Decision Gate 3 ("DG3") which is Project Sanction requires the advancement of project activities and work streams to a level of progression which provides the certainty needed to sanction the Project (e.g. ratification of the IBA, receipt of environmental permits and approvals, completion of detailed engineering and design, market confirmation of financing strategy, finalization of definitive commercial agreements, etc.). The intent of DG3 is to validate the concept selected before committing the largest dollars.

#### ***Independent Reviews***

- Independent Reviews are carried out in accordance with established Nalcor decision making processes, each Decision Gate having differing requirements, for the successful achievement of DG3 the following independent reviews will be carried out using the latest available project cost and schedule information:
  - ❖ Independent Project Analysis Inc. ("IPA") an international organization that specializes in the review of large scale projects;
  - ❖ Independent Project Review ("IPR") a group of subject matter experts who individually are recognized for their knowledge and experience in particular aspects of large scale project delivery and collectively can provide a thorough review and commentary on the readiness of the Project to proceed; and
  - ❖ An updated and final report of the preliminary independent review carried out in June 2011 of the reasonableness of the Island supply decision as described below (the "Supply Decision Review").
- The Supply Decision Review will be conducted by an external consultant (the "Consultant") with a focus on the reasonableness of the Island supply decision. For purposes of clarification, the scope of the Supply Decision Review does not extend to a review of the financing decision or the monetization of the excess power.

- The Consultant will review and provide an opinion on the following:
  - ❖ Reasonableness and completeness of the long-term (~60 years) Island supply options considered;
  - ❖ Reasonableness of the process followed to screen and evaluate the appropriate Island supply options;
  - ❖ Assumptions used by Nalcor in assessing the Island supply options; and
  - ❖ Recommended Island supply option.
- To complete the necessary work to provide their opinion, the Consultant will complete their review using the following inputs:
  - ❖ necessary internal financial and engineering models, reports, and discussions with management and personnel;
  - ❖ the 2007 Energy Plan that forms the policy framework used by Nalcor in determining the Island supply option;
  - ❖ the Island supply option evaluation criteria used by Nalcor; and
  - ❖ generally accepted utility practices for the evaluation of Island supply options.
- The Island supply option evaluation criteria used by Nalcor are:
  - ❖ Security of supply and reliability;
  - ❖ Cost to ratepayers;
  - ❖ Environment; and
  - ❖ Risk and uncertainty.
- The Consultant will provide a preliminary draft report using final DG2 estimates by [July 1, 2011]. The Consultant will provide a final report using final DG3 estimates and assumptions prior to the conclusion of the DG3 process.
- Potential candidates for Consultant include:
  - ❖ NERA Economic Consulting;
  - ❖ Navigant Consulting;
  - ❖ Ernst & Young LLP; and
  - ❖ KPMG LLP.

**Overview of Required Regulatory/Shareholder Undertakings:**

- Over half of the total financing for MF and the LIL is expected to be provided by project debt for which lender recourse is to only the project revenues, and not the assets or a guarantee by the Province. The remainder of the required financing will be provided by Provincial equity. All (for the LIL) or most (for MF) of the revenues for the Project arise from a regulated NL ratepayer obligation. The amount and cost of the debt financing (which in turn drive ratepayer costs) depend on the risks that lenders perceive; many of these risks can be dealt with through Provincial undertakings. Undertakings are being requested, which:
  - 1) Enable creditworthy revenue streams that:
    - Establish the ratepayer payment obligation – Creates certainty that costs and the return on rate base associated with MF and LIL assets will be recovered from a stable, regulated customer base;
    - Provide lenders with a clear line of sight to stable cash flows required for debt service - Inclusion of the costs associated with the MF Power Purchase Agreement (“PPA”) and LIL Transmission Services Agreement (“TSA”) in NLH’s cost of service is critical, as the related payments to the borrowing entities are the only form of security/collateral that will be offered to lenders (as described above);
    - Promote achievement of in-service and commencement of revenues for debt service - A contingent equity commitment provided by the Province assures lenders of project completion, even in the event of overruns or delays.
  - 2) Address risk and uncertainty that will arise if the PUB has influence over Provincial policy and other related matters (some of which are also critical for debt service), including:
    - The decision process for meeting Island supply requirements - i.e. selection of the MF + LIL versus Holyrood/Isolated Island option;
    - Recovery of full cost of service for LIL costs, and the NL ratepayer share of MF costs, from NL ratepayers;
  - 3) Address uncertainty surrounding the achievement of a timely MF/LIL financial close, in-service and/or recovery of costs from NL ratepayers which may impact Emera’s ability to obtain timely regulatory approvals and financing for the Maritime Link; and

- 4) Support the achievement of a Federal Loan Guarantee - The Federal government, as potential guarantor of MF/LIL debt, will assess the creditworthiness of these projects in a manner similar to that of potential lenders.
- Absence of appropriate Provincial supports for credit quality (as described in 1 and 2 above) could provide the Federal government with an "out" on loan guarantees, and a loss of an estimated benefit to NL ratepayers of \$640M.
  - The Federal government would not likely commit to a guarantee until NL regulatory treatment of MF and LIL was clearly addressed. A PUB review of the Project costs could likely result in significant uncertainty for potential lenders/guarantors until the Project was completed. Furthermore, a delay of at least one year to allow for a PUB review of the Island supply decision could also cause a loss in the momentum developed relating to the successful completion with the Federal government.
- The finance-raising process has already commenced, one piece of which, as noted above, is engagement with the Government of Canada concerning a Federal Loan Guarantee. Nalcor plans to engage the financial markets next by seeking a shadow rating from the rating agencies in the May-July 2011 time frame (for the MF and LIL borrowing entities); this will be followed by resumed discussions of the Federal Loan Guarantee after the formation of a new federal government.
  - These schedule-sensitive finance-raising steps cannot proceed without critical credit-worthiness elements in place. Provincial undertakings are a central component of this credit-worthiness.
  - The implications of not proceeding with financing at this time are as follows:
    - ❖ Necessary financing activities will not be completed in order to support the Decision Gate 3 (Sanction) decision for MF in late 2011;
    - ❖ The Government of Canada will likely require credit ratings for the Project without a federal guarantee as a key measure to assess credit worthiness. Unless the financing process starts now, then these credit ratings will not be available in a timely manner;
    - ❖ Receipt of debt financing will be pushed out further, thereby increasing the amount of up-front equity contributions required from the Province prior to putting financing in place; and
    - ❖ Reputational risk – Nalcor has outlined preliminary timelines with rating agencies in advance of the financing activities and delay would decrease confidence in Nalcor's ability to deliver the Project within the timelines provided.

- The specific requested undertakings and their impact on credit quality are provided below:

Requested Undertaking	Impact on Credit Quality
Approval for formation of new Nalcor entities	<ul style="list-style-type: none"> <li>The contemplated structured debt will require special borrowing entities so that lender access to project cash flows is clear and unencumbered</li> </ul>
Inclusion of costs in NL rate base (including Emera’s interest in LIL)	<ul style="list-style-type: none"> <li>Revenues from the NL rate base provide the basis for debt service (all for LIL, most for MF)</li> <li>Lenders will have recourse only to Project revenues, and not Provincial guarantees nor Project assets</li> </ul>
NLH sole authorized wholesale provider of electricity in NL	<ul style="list-style-type: none"> <li>Absent appropriate undertakings, there is the potential that NLH supply (Island fleet plus MF) could be eroded potentially jeopardizing NLH's ability to meet its PPA and TSA payment obligations that are required by the MF/LIL borrowing entities to service debt.</li> </ul>
Provincial government indemnification and change in law provisions as part of lending agreements	<ul style="list-style-type: none"> <li>Recognizing that future NL Legislatures cannot be bound, and is a customary provision where debt financing is sensitive to the legislative environment.</li> <li>Provides reasonable compensation to lenders if future legislative acts threaten debt service.</li> </ul>
Borrowing limits for new and existing Nalcor entities	<ul style="list-style-type: none"> <li>Provides new MF and LIL entities the authority to borrow funds required for construction of assets and provides existing entities, such as NLH, additional liquidity to meet obligations under credit-sensitive agreements (if required).</li> </ul>

