Re: Your request for access to information under Part II of the Access to Information and Protection of Privacy Act (File # NR-22-2016)

On May 24, 2016, the Department of Natural Resources received your request for access to the following records/information:

1. All correspondence between Minister of the Natural Resources Shawn Skinner and/or Tanya Noseworthy with any Nalcor official regarding Muskrat Falls between July 2010 and July 2011.
2. All briefing notes, studies, presentations and summaries created by the Ministry of the Natural Resources between August 2010 and July 2011 with regards to Muskrat Falls between July 2010 and July 2011.
3. All correspondence between Minister of the Natural Resources Siobhan Coady and/or Tanya Noseworthy with any Nalcor official regarding Muskrat Falls between August 2015 and present.

If my request is denied in whole or part, I ask that you justify all deletions by reference to specific exemptions of the act. I will also expect you to release all segregable portions of otherwise exempt material. I, of course, reserve the right to appeal your decision to withhold any information or to deny a waiver of fees. Please send the information in an electronic format such as on DVD or email if possible. I look forward to your reply within the timeframe the statute requires. Thank you for your assistance.

I am pleased to inform you that a decision has been made by the Department of Natural Resources to provide access to some of the requested information. Access to the remaining information contained within the records has been refused in accordance with the following exceptions to disclosure, as specified in the Access to Information and Protection of Privacy Act (the Act):

P.O. Box 8700, St. John’s, NL, Canada A1B 4J6 t 709.729-1651
Sec 27(1)(a) Advice, recommendations or policy considerations submitted or prepared for submission to the Cabinet.

Sec 27(1)(h) A record created during the process of developing or preparing a submission for the Cabinet.

Sec 27(2)(a) The head of a public body shall refuse to disclose to an applicant a cabinet record.

Sec 29(1)(a) The head of a public body may refuse to disclose to an applicant information that would reveal advice, proposals, recommendations, analyses or policy options developed by or for a public body or minister.

Sec 30(1)(a) Legal advice that is subject to solicitor and client privilege or litigation privilege of a public body.

Sec 30(1)(b) Legal advice that would disclose legal opinions provided to a public body by a law officer of the Crown.

Sec 34(1)(a)(i) The head of a public body may refuse to disclose information to an applicant if the disclosure could reasonably be expected to harm the conduct by the government of the province of relations between that government and the following or their agencies:
   (i) the government of Canada or a province,

Sec 34(1)(b) The head of a public body may refuse to disclose information to an applicant if the disclosure could reasonably be expected to reveal information received in confidence from a government, council or organization listed in paragraph (a) or their agencies.

Sec 35(1)(f) The head of a public body may refuse to disclose to an applicant information which could reasonably be expected to disclose positions, plans, procedures, criteria or instructions developed for the purpose of contractual or other negotiations by or on behalf of the government of the province or a public body, or considerations which relate to those negotiations;

Sec 35(1)(g) The head of a public body may refuse to disclose to an applicant information which could reasonably be expected to disclose information, the disclosure of which could reasonably be expected to prejudice the financial or economic interest of the government of the province or a public body.
Sec 40(1) The head of a public body shall refuse to disclose personal information to an applicant where the disclosure would be an unreasonable invasion of a third party’s personal privacy.

Sec 5.4(1)(a)(c) Energy Corporation Act

Notwithstanding section 7 of the Access to Information and Protection of Privacy Act, 2015, in addition to the information that shall or may be refused under Part II, Division 2 of that Act, the chief executive officer of the corporation or a subsidiary, or the head of another public body, may refuse to disclose to an applicant under that Act commercially sensitive information of the corporation or the subsidiary; and that the disclosure of the information may

(i) harm the competitive position of,
(ii) interfere with the negotiating position of, or
(iii) result in financial loss or harm to the corporation, the subsidiary or the third party.

As required by 8(2) of the Act, we have severed information that is unable to be disclosed and have provided you with as much information as possible. In accordance with your request for a copy of the records, the records have been included with this correspondence. It should be noted that the department does not possess any records pertaining to the first part of your request, i.e., “…All correspondence between Minister of the Natural Resources Shawn Skinner”.

Please be advised that you may appeal this decision and ask the Information and Privacy Commissioner to review the decision to provide partial access to the requested information, as set out in section 42 of the Act. A request to the Commissioner must be made in writing within 15 business days of the date of this letter or within a longer period that may be allowed by the Commissioner. Your appeal should identify your concerns with the request and why you are submitting the appeal.

The appeal may be addressed to the Information and Privacy Commissioner is as follows:

Office of the Information and Privacy Commissioner
2 Canada Drive
P.O. Box 13004, Stn. A
St. John’s, NL A1B 3V8

Telephone: (709) 729-6309
Toll-Free: 1-877-729-6309
Facsimile: (709) 729-6500

You may also appeal directly to the Supreme Court Trial Division within 15 business days after you receive the decision of the public body, pursuant to section 52 of the Act.
Please be advised that responsive records will be published following a 72 hour period after the response is sent electronically to you or five business days in the case where records are mailed to you. It is the goal to have the responsive records posted to the Office of Public Engagement's website within one business day following the applicable period of time.

If you have any further questions, please feel free to contact me by telephone at 729-1651 or by e-mail at reneependergast@gov.nl.ca.

Sincerely,

Renee Pendergast
Departmental ATIPP Coordinator
Title: Lower Churchill Project Transmission

Issue: Nalcor is proposing to sign a Non-Binding MOU with CHPE Inc. for a Transmission Reservation on its proposed 1000MW CHPE line

Background/Current Status:

Project Proposal

- The Champlain Hudson Power Express (CHPE) is a high-voltage direct current (HVDC) submarine power cable project linking the Montreal area to the New York City suburb of Yonkers. If approved, the line is expected to be commissioned in 2015.

- The venture will be led by CHPE Inc, a US subsidiary of Canadian-based Transmission Developers Inc. (TDI). The proposed transmission line would carry energy from eastern Canada and feed it directly into the New York City electricity market. Construction costs for this project are estimated at $1.9 billion U.S. for the section located in the State of New York.

- The Quebec section of the line would be built and operated by TransÉnergie, the transmission arm of Hydro-Québec (cost for QC portion of line is not available).

- The proposed cable would have a length of 335 miles (539 km) between the Canada-U.S. border and its southern terminal, in Yonkers, New York. The two 5-inch (127 mm) cables would be buried at a depth of 3 feet (91 cm) under Lake Champlain and the Hudson River between Albany and Manhattan.

- The proposed cable would resume its path below the river bed to reach a HVDC converter station to be built in Yonkers. From this point, the current would be sent to New York by AC cables.

MOU Summary

- The MOU lays out the terms of the negotiation of a Transmission Capacity Agreement (TCA), as well as the proposed commercial terms for such a TCA. See discussion under “Legal Considerations” below respecting the binding nature of the MOU.
Nalcor Benefits

- A potential long-term home for Recall power
- An option for Lower Churchill energy of an arrangement with NS cannot be concluded

Timelines

- August 2010
  - Execute MOU (Nalcor-CHPE Inc.)

- December 2010

- February 2011

- September 2011
  - Financial close
Review of the Parties Involved

- Justice with the assistance of the Department of Business was requested to conduct a review of the parties involved in this MOU, the presentation of 20 August and related companies. The individual information respecting the companies is as follows – note that generally we are unable to verify any information respecting the relationships between these companies:

  o Champlain Hudson Power Express Inc
    - Champlain Hudson Power Express Inc. is a corporation incorporated under the laws of the state of New York. We have been unable to find significant additional information about the company. Its officers are listed as being John Douglas (CEO), Donald Jenson (President), Scott Hargreaves (CFO). We have no information respecting its directors; the only information about shareholders is that Dun & Bradstreet states the shares are held by the officers (which does not align with the Nalcor presentation – it notes that CHPE is 100% owned by TDI-USA Holdings Inc).

  o Transmission Developers Inc. (TDI)
    - Transmission Developers Inc. is mentioned in the MOU as one of the parties to the NDA’s with Nalcor. We have been unable to verify the corporation’s jurisdiction of incorporation (probably a result of its being incorporated in Ontario, which does not provide online corporate searching). It is noted in search results from the Department of Business as being a privately-held Canadian corporation based in Toronto with $500,000 in sales and 4 employees. The President is identified as Donald Jessome; its CEO is identified as David Peterson. The Company’s website (www.transmissiondevelopers.com) identifies the Blackstone Group and Blackrock as major investors. The Board of Directors contains 6 individuals; in addition to Peterson and Jessome, there are two individuals from Blackstone (David Foley and Sean Klimczak), an individual from Riverbank Power (John Douglas), the sixth director is Keith Lord who is also a director of Riverbank Power.

  o TDI-USA Holdings Inc.
    - Identified in the presentation as owning 100% of Champlain Hudson Power Express Inc. We cannot confirm the existence of this corporation as we have been unable to find its incorporation jurisdiction. This may partially be a result of “TDI-USA Holdings Inc.” not being its full correct name. We have found various corporations with similar names registered in Delaware and New York

  o Blackstone Group
    - Identified in the presentation as being invested in CHPE project. Assuming this reference is to the Blackstone Group L.P. (as opposed to associated entities with similar “Blackstone Group” names) this is one of the largest private equity firms in the world with $98 Billion in assets under management and 17 offices worldwide. It is a publicly-traded corporation.
We have also identified the following corporations as being involved with Transmission Developers Inc. in some way:

- Blackrock Inc.
  - The corporation is listed on TDI’s website as being an investor with Blackstone Group. It is one of the largest money management corporations in the world. A former entity under the Blackstone Group, it separated in 1992.

- Riverbank Power
  - As noted above this shares directors with TDI. We have been unable to identify information on Riverbank Power on the short timeframes other than from the company’s website (www.riverbankpower.com). It identifies that 4 of the 5 directors of Riverbank, including Peterson, Jessome, Douglas and Keith Lord, who also serve on Transmission Developers’ Inc.’s website.

- RSW Inc.
  - There are references online to RSW Inc. being major backers involved in the CHPE project along with the Blackstone Group. RSW Inc. is an engineering firm headquartered in Montreal, Quebec.

**Action Being Taken:**

Conclusions:

- Retaining New York counsel is necessary to advise further on the MOU. Direction will be required on additional analysis and which counsel to retain.

Prepared by: Charles W. Bown (NR) and Todd Stanley (JUS) with info from BUS
Approved by: Minister Dunderdale

August 23, 2010
Information Note
Nalcor Energy / Natural Resources

Title: Lower Churchill Project

Issue: To provide information and current status on the Lower Churchill Project (LCP)

Background and Current Status:

General
- The Lower Churchill project includes two sites: Gull Island – 2,250 MW, 11.9 TWh/year; and Muskrat Falls – 824 MW, 4.8 TWh/year.
- The Project is predicting 80,000 person years of employment and $5.8 billion in income will be realized nationwide.
- The Project will provide significant taxes for both levels of government - $440 million in NL revenues and $1.5 billion in federal revenues.
- The project could displace over 16 megatonnes of GHG’s every year, equivalent to the annual GHG emissions from 3.2 million automobiles.

Environmental Assessment

Generation
- The generation project has been registered with provincial and federal environmental agencies and has started significant consultations on the Project as required by the environmental assessment process.
- The federal and provincial governments issued the draft environmental impact study (EIS) Guidelines for public review on December 19, 2007.
- In September 2007, the Canadian Environmental Assessment Agency (CEAA) announced the recipients of $50,000 in participant funding. This funding amount was distributed to assist interveners in reviewing the draft EIS Guidelines. These recipients include: Innu Nation, the Labrador Métis Nation, the Grand Riverkeeper Labrador Inc, Women in Resources Development and the Natural History Society of Newfoundland.
- A copy of the draft Guidelines were provided to the Innu Nation, Labrador Metis Nation, Nunatsiavut Government and six Innu First Nations in Quebec and all provided comments.
- On July 7, 2008 CEAA announced the availability of $125,000 under its Participant Funding Program to assist groups and individuals take part in the environmental assessment of the proposed project. The funding recipients are Sierra Club of Canada – Atlantic Canada Chapter, Natural History Society of Newfoundland and Labrador and Grand Riverkeeper Labrador Inc.
- On July 15, 2008 the federal and provincial governments issued the final Guidelines for the preparation of the EIS. A five member Joint Review Panel was appointed on Jan 8, 2009.
- Nalcor has submitted an Environmental Impact Statement. The Panel initiated a 75-day public comment period on the EIS. Aboriginal groups, the public, governments and other interested parties have reviewed the document and provided comments to the Panel and Nalcor Energy. Nalcor has provided additional information to the Panel.
- The public hearings are expected to commence in Fall 2010 or Winter 2011 and will take up to 45 days. Once concluded, the Panel will deliver its report to Ministers within 90 days following the close of the public hearings.
Labrador-Island Transmission Link

- The proposed Labrador–Island Transmission Link represents a key component of the provincial Energy Plan. The current schedule could see construction begin in 2011 and conclude in late 2014/15.
- The Labrador-Island Transmission Link was registered for environmental assessment in January 2009. Following public and governmental review of the Project’s Environmental Assessment Registration and Project Description document, the provincial government announced an Environmental Impact Statement (EIS) is required for the Project and the federal government subsequently concluded that a Comprehensive Study is required. Both processes will be coordinated under a single set of Guidelines. In anticipation of, and in preparation for, the environmental assessment (EA) requirements for the Labrador - Island Transmission Link Project, Nalcor has been conducting an environmental and engineering study program to gather key information to support that eventual assessment.

Engineering

- An RFP for engineering support services for technical expertise in the areas of geotechnical, hydrological, mechanical, electrical, HVDC, and submarine systems, as well as project management was issued in December 2006 and closed in January 2007.
- In March 2007, Nalcor announced the award of preliminary engineering service contracts to Hatch Energy, SNC-Lavalin, and Fugro Jacques.
- Further study on the Project’s technical elements and its configuration is ongoing in preparation for construction. This year’s field program focuses on Muskrat Falls and consists of surveying, exploratory drilling, material sampling and data collection. It’s expected to conclude in middle to late October.
- On February 20, 2009 Nalcor issued an Expression of Interest (EOI) to six engineering and project management companies in order to determine their interest in bidding for the Lower Churchill Project’s detailed engineering design work. These companies are worldwide specialists in hydroelectric, transmission and civil construction
- Three companies have been notified that they are short-listed to receive the RFP: SNC-Lavalin Ltd; Hatch Ltd, and Black and Veatch;
- As part of the overall assessment of the submissions, the potential bidders will be required to provide details of their plans to optimize local and provincial benefits.

Assessment of markets and market access

- All market access options are being investigated to determine the best option – economically and strategically. Ontario, Quebec, the Maritimes, New England, and New York markets are all still under consideration.

Quebec

- In January 2006, Nalcor made an application for long-term transmission service with Hydro Quebec’s transmission division-TransEnergie (HQT). The application includes access into Quebec and to interconnections into Ontario, New England, New York, and New Brunswick.
- This request for transmission service is in accordance with Quebec’s Open Access Transmission Tariff rules, which provides non-discriminatory access to the HQ transmission system. These rules allow for a study process to determine the technical implications and costs required to accommodate a block of lower Churchill power.
Some information from the studies was received and Nalcor agreed with portions of it. However, there were points of the assessment or interpretation where there was a difference of opinion and certain information was expected to be received that was not provided.

Nalcor wrote HQT indicating there were elements of the information which needed to be clarified. HQT came back with their reasoning which was not satisfactory. The next step in the process was to file a complaint with the Regie de L’Energie the independent regulator in Quebec.

Nalcor filed four complaints (the 4th complaint has three parts, but counts as one complaint) and completed hearings in front of the Regie on February 12, 2010.

The Regie released its decision on May 11, 2010 and dismissed all complaints raised by Nalcor. On June 10, Nalcor filed an application for an Administrative Review with the Regie. This is the first step in the appeal process which could be followed by judicial review in the Quebec Superior Court, Court of Appeal and the Supreme Court of Canada. There is no prescribed time limit for a decision from the Administrative Review, but three days of hearings have been set aside for November.

Ontario

Nalcor officials are continuing to assess this market with the Ontario Power Authority (OPA). A study by the Independent Electricity System Operator and Hydro One on interconnection options and network impacts into ON has recently been completed and is being assessed by Project.

Maritimes

In February 2007, a service request was made to the New Brunswick System Operator for service in New Brunswick from two routes - one an HVDC submarine Maritime transmission route via Newfoundland; a second via the Hydro Quebec grid. This work continues.

In January 2008, Nalcor signed an MOU with Emera Inc. and Nova Scotia Power (NSPI) to explore the possibility of bringing energy from the Lower Churchill Project to the Maritimes and New England markets. As a result of this agreement, Nalcor, Emera and NSPI are working collaboratively to study in detail the technical, economic, financial and regulatory aspects related to exporting power from the Lower Churchill Project to these markets.

Discussions are also taking place with Emera on a long-term PPA. Nalcor is also having preliminary discussions with PEI Energy Corporation and NB Power on their interest in a long-term PPA.

In May 2010, Premiers agreed to re-start study work under the stalled Atlantic Energy Gateway initiative. This initiative will lay the groundwork for greater cooperation between Atlantic province on electricity generation and transmission.

In June 2010, Department of Natural Resources and Nova Scotia’s Department of Energy, with support from Nalcor, made a joint request for $375 M in funding from the federal Public, Private Partnerships Fund to contribute to the costs of the subsea link between the two provinces. Both province’s and Nalcor are having continued dialogue with the federal government on this request.

New York

Nalcor has signed an MOU with TDI to explore commercial arrangements for a transmission service agreement (anchor tenant) on the proposed TDI line (1000 MW to NYC and 1000 MW to Connecticut). In May, Nalcor filed a letter of support with FERC in relation to TDI's
petition to FERC to allow anchor tenants for up to 75 percent of the capacity. TDI is seeking a US federal loan guarantee under DOE program.

**Holyrood**
- The Energy Plan commits to addressing environmental concerns at the Holyrood Generating Station by replacing Holyrood with electricity from the lower Churchill development through the creation of a transmission link to the island. NLH will enter into a Power Purchase Agreement to purchase lower Churchill power for the island to offset Holyrood thermal generation. This Power Purchase Agreement is part of getting financing to development the Lower Churchill Project.

**Expenditures**
- The Project has moved along on several fronts and to support the significant amount of activity, $137.5 million, excluding interest charges, has been invested in the Lower Churchill Project since 2003. These recent investments are in addition to the $115 million spent by prior administrations and $78.7 million in interest incurred; for a total expenditure of $330.7 million since the 1970s.

**Provincial Benefits**
- Labrador and the Island stand to benefit economically from the employment and business opportunities resulting from development of the resource. There will be billions of dollars of expenditures over the construction period which will provide long term opportunities for the construction and service sectors in Labrador.
- The strategy includes at least 21.5 million person hours of construction employment on two hydroelectric developments at Gull Island and Muskrat Falls, as well as the Labrador-Island Transmission Link, and at least 6.5 million in engineering and project management person hours and specific Gender Equity and Diversity Programs.
- The development of these two hydroelectric facilities will provide at least 5.5 million person hours of engineering and project management employment and 19 million person hours of construction employment in the province.
- The benefits strategy also applies to the construction of the Labrador-Island Transmission Link, a High Voltage Direct Current (HVdc) system from central Labrador to the area of Soldiers Pond on the Island portion of the province. This work will result in at least one million person hours of engineering and project management employment and 2.5 million person hours of construction employment in the province.
- In addition to the construction of the Project, operation and maintenance of the facilities will result in about 40 people being employed long-term in the region.

**New Dawn Agreement**
  - Innu Rights Agreement (Draft land claim agreement in principle)
  - Lower Churchill Project Impacts and Benefits Agreement
  - Upper Churchill Redress Agreement
- This significant progress toward the conclusion of the IBA with Innu Nation is a major milestone for the Lower Churchill Project as it helps us in obtaining the certainty necessary to move forward with our project planning and further investment.
• Over the past year and a half, a significant amount of work has gone into negotiating a formal agreement and all parties have been committed to building a productive and collaborative relationship throughout the process.

• Once the final agreements have been reached, the details will be presented to the Innu people for ratification. The timing of that vote will be determined by Innu Nation leadership. The Innu Rights Agreement is also subject to negotiations with the Government of Canada prior to finalization and presentation for ratification.

• The Innu Nation will receive 5% of after debt net cash flow from the Project, and will also receive $5M per year between project sanction and first commercial power for implementation activities.

• The Project has a $400M target for Innu business participation and Innu employment targets and funding for training and scholarships.

Drafted by: Nalcor Energy – Lower Churchill Project
Approved by: Gilbert Bennett
2010-03-19

Updated by: Nalcor Energy – Lower Churchill Project
2010-09-17
The Lower Churchill Generation Project

Key Messages:
- The Lower Churchill Generation Project will generate 3,074MW of power — enough to supply electricity to hundreds of thousands of homes year round. The Project can provide a long-term, reliable source of renewable energy, contribute to provincial revenues, and provide employment and business opportunities.
- The announced Phase I of the Project (Muskrat Falls) will generate 824 MW of power.
- The Project will cost more than $6 billion to build and it will create an influx of jobs. Overall, project construction is expected to enhance provincial income by $2 billion. This accounts for the incomes of workers and businesses who work directly for the Project, as well as those who have jobs providing service to people working on the Project.
- Nalcor will require its contractors and subcontractors to give priority consideration to hiring suitable personnel who live adjacent to the Project. Nalcor will also encourage Aboriginal people, women, visible minorities and persons with disabilities to participate. Peak employment will occur around year six of the Project, at which time over 2,000 workers will be required.

Background and Current Status:

The Lower Churchill Generation Project (entire)
- The Lower Churchill Generation Project will have two hydroelectric generation stations: one at Gull Island, and one at Muskrat Falls. There will also be transmission lines between Gull Island and Churchill Falls and between Muskrat Falls and Gull Island.

Muskrat Falls
- The Muskrat Falls facility will be able to generate 824 MW of power. The facility will include a dam built in two sections (north and south abutments of the river), a reservoir, and a powerhouse consisting of four propeller or Kaplan turbines:
  - The north dam will be 32m high and 432m long and the south dam will be 29m high and 325m long.
  - The reservoir will be 59km long with an area of 101km². The area of inundated land will be 41km² at full supply level.

Gull Island
- The Gull Island facility will consist of a generation station with a capacity of 2,250 MW. The facility will include a reservoir, a dam, and a powerhouse with five Francis turbines.
  - The Facility’s reservoir will be 232km long, and the area of inundated land will be 85km². The dam will be a concrete-faced, rock fill construction 99m high and 1,315m long, establishing a 213km² reservoir with a full supply level of 125m above sea level.
Interconnecting Transmission Lines

- Transmission lines will be built to transmit the electricity from the generating stations to Churchill Falls, and are designed to be:
  - 203km long for the 735 kilovolt (kV) line from the Gull Island Facility
  - 60km long for the double-circuit 230kV line between Muskrat Falls and Gull Island.
- Both transmission lines will be supported by lattice-type steel structures and located north of the Churchill River, requiring a cleared right of way approximately 80m wide in addition to the existing right of way.

Building, Operating, and Maintaining the Project

- The entire project is expected to take about 10 years to complete, with the Gull Island facility taking seven years and the Muskrat Falls facility taking 3 years.
- Sites and reservoirs will be accessed by approximately 345km of temporary roads and 30km of permanent roads. Public use of these roads will be restricted. Most of the temporary roads will be constructed to facilitate vegetation clearing within each reservoir.
- When the Project construction is complete the temporary roads and bridges will be flooded by the reservoir, or removed and rehabilitated. Also upon completion, borrow pits, quarry sites, and spoil areas consisting of waste overburden and rock, will be decommissioned and rehabilitated.
- Accommodations at the Gull Island construction site are designed for up to 2,000 people and the Muskrat Falls construction site accommodations are designed for up to 1,000 people. Both facilities will be removed when construction is complete.
- During the operations and maintenance phase of the Project, Nalcor expects that about 40 people will be employed to look after the operation of the Gull Island and Muskrat Falls generation facilities and the transmission lines.

Action Being Taken:
- None. For information purposes only.

Prepared/Approved by: Susan Brewer / Rob McGrath, DNR

Ministerial Approval:

14/10/2010

Comments:
- Comment [u8]: This will presumably be for Phase II?
- Comment [u7]: Is this still accurate?
- Comment [u6]: Is this still accurate?
- Comment [u9]: Need specific info for Muskrat only.
Information Note
Natural Resources

Title: The Labrador-Island Transmission Link

Key Messages:
• The Transmission Project represents a key long-term component of the Province's 2007 Energy Plan, as it is designed to meet clean energy requirements and future economic development and growth.
• A key purpose and rationale for the proposed project is to put in place infrastructure to further interconnect the Province with the North American electricity system, and thus, set the stage for further development and growth in the province's energy sector and overall economy.
• The Transmission Link presents an opportunity to transmit 800 MW of power from the proposed Lower Churchill Hydroelectric Generation Project to the island, and can therefore also play an important part in ongoing efforts toward securing an adequate, reliable and sustainable electricity supply to address the current and future needs of the province's residents and industries.

Background and Current Status:
• Nalcor Energy is proposing to develop the Lower Churchill Transmission Link, commonly known as the Labrador-Island Transmission Link, a High Voltage direct current (HVdc) transmission system within and between Labrador and the island of Newfoundland.
• The island link will be the first of its kind in Newfoundland and Labrador. It will include the construction and operation of an approximately 1,100 km long transmission line that will be constructed from Gull Island, in the central region of Labrador, down to Soldiers Pond on Newfoundland's Avalon Peninsula.
• As currently planned, the ± 450 kV HVdc transmission system will include the following key components:
  o Gull Island Converter Station: A facility on the north side of the Churchill River to convert a portion of the ac (alternating current) electricity from the Lower Churchill Hydroelectric Generation Project into dc (direct current) form;
  o Transmission Line - Gull Island to Strait of Belle Isle: An overhead HVdc transmission line, consisting of single galvanized steel lattice towers (averaging 43 m in height) along a cleared right of way approximately 407 km long and averaging 60 m wide;
  o Strait of Belle Isle Cable Crossings: The placement of three to five submarine cables within two 27-35 km long corridors across the Strait, installed beneath the seabed through tunnelling, trenching, rock placement and/or other means to provide the required cable protection;
  o Transmission Line - Strait of Belle Isle to Avalon Peninsula: An overhead HVdc transmission line, up to approximately 760 km long with similar characteristics to that described in the Gull Island to Strait of Belle Isle section;
• Soldiers Pond Converter Station: A facility to convert the dc electricity transmitted across the HVdc system back into ac form, for distribution to and through the island grid;

• Electrodes: A high-capacity grounding system at each end of the HVdc line to assist in system stability and to provide an alternate return path in a fault condition event whereby a conductor becomes temporarily out of service. The link will be connected to their respective converter stations via overhead wood pole lines.

• Nalcor has identified a two km wide corridor for most of the on-land portions of the proposed HVdc transmission line and 500 m wide corridors for the proposed Strait of Belle Isle cable crossings, as well as various alternative corridor segments in particular areas. Potential on-land corridors and study areas have also been identified for the proposed electrodes.

• The size of these corridors will be reduced where specific transmission line routes will eventually be selected within these corridors on the basis of technical, environmental and socioeconomic considerations and after consultation with the public.

• The Transmission Link will be designed to accommodate for future developments or market decisions that require additional power be transported over the HVdc system for use and/or export. For example, the link design provides an option to be extended and deliver up to an additional 1,000 MW to the Maritime Provinces through a potential Maritime Link with no changes to the operation voltage or the overland transmission lines.

Action Being Taken:

• None. For information purposes only.

Prepared/Approved by: Susan Brewer / Rob McGrath, DNR
Approved by:

Ministerial Approval:

14/10/2010
Information Note
Natural Resources

Title: Labrador Issues - Benefits

Key Messages:

- The Lower Churchill Project represents a far-reaching boost to economic activity in the province. The Project will directly affect the lives of many residents of the Province through increased business opportunities as well as employment, income, training and skills development. Indirectly, the Project will benefit the economy through increased revenue to government and the subsequent benefits from the spending of that revenue on public goods and services.

- In the Energy Plan, we committed to maximize the benefits from our major resources developments for the people of Newfoundland and Labrador. The work associated with the Lower Churchill Project that can be performed in Newfoundland and Labrador will be done here.

- Approximately $5 billion will be spent on Project construction costs over 10 years; more modest spending will occur annually during operation and maintenance. Most of this spending will be done in the province; and most of the economic benefits will be felt in Labrador. This will include direct and indirect spin-off employment and incomes generated by companies that will supply goods and services.

- Hiring and procurement policies will encourage the participation of local and provincial companies. First consideration will be given to provincial suppliers and contractors, on a competitive basis, to participate in the supply of works, goods, and services to the Project. The process will take into account such relevant factors as price, quality, technical suitability, service, and delivery.

- Qualified and experienced workers who are adjacent to the resource will have first consideration for employment. Updates on Project employment requirements and opportunities will be provided to local, regional and provincial groups and organizations.

- Building of the dams and transmission lines will mean significant employment opportunities for people in Labrador and the province in general. The 10-year construction period (for the building of dams and transmission lines) will generate over 15,000 person-years of employment. The operation and maintenance phase will require about 40 persons, representing long-term careers for those employed.

- Nalcor will develop and implement a Diversity Plan to encourage Aboriginal people, women, visible minorities and persons with disabilities to participate in the Project. A gender equity program will be implemented including a women’s employment plan. An Impacts and Benefit Agreement (IBA) is also being negotiated with the Innu Nation. This will define how Labrador Innu will participate in, and benefit from, the
Project. The Gender Equity and Diversity programs are critical components of the benefits strategy announced in July 2010.

- The Lower Churchill Project will positively affect employment, training, and skills development at both the local and provincial levels. The training and experience gained by Newfoundland and Labrador workers will be transferable to other projects and infrastructure work.

Background and Current Status:
- The Lower Churchill Hydroelectric Generation Project and Labrador-Island Transmission Link (LCP) will offer significant business and employment opportunities which will be felt in Labrador and throughout the province.
- In July 2010, the Province released The Lower Churchill Construction Projects Benefits Strategy (the Benefits Strategy). This strategy outlines benefits provisions for work related to the construction of the hydroelectric generation projects at Gull Island and Muskrat Falls and also applies to the construction of the Labrador-Island Transmission Link. (A separate note on the Benefits Strategy is available at Tab 6)

Employment
- The Lower Churchill Construction Project and its Engineering, Procurement and Construction Management Contractors (EPCM) and subcontractors will perform all engineering and project management, with the possible exception of specialized engineering, for the project in the Province.
- No less than the following number of engineering and project management hours will take place within the Province:
  - Gull Island Hydroelectric Development: 4 million person hours;
  - Muskrat Falls Hydroelectric Development: 1.5 million person hours;
  - Transmission System: 1 million person hours
- All construction for the Projects will occur in the Province, including: Muskrat Falls concrete dams, powerhouse, intake and spillway structures and associated ac transmission facilities; HV dc Transmission System, including converter stations, switchyards, and overhead dc transmission lines.
- Based on current estimates, not less than the following number of Construction and Assembly Person Hours will take place in the Province:
  - Gull Island Hydroelectric Development: 13 Million Person Hours;
  - Muskrat Falls Hydroelectric Development: 6 Million Person Hours;
  - HVdc Transmission System: 2.5 Million Person Hours
- More than 70 occupations will be represented in the construction workforce which will include various trades and other positions. Some of these include:
  - Building and accommodations staff
  - Building custodial staff
  - Carpenters
  - Concrete form workers and finishers
  - Construction Managers
  - Drillers and Blasters
  - Electricians
  - Industrial Electricians

Comment [u4]: How much for Labrador?
Comment [u5]: How much for Labrador?
- Engineers and Technologists
- Forestry Workers
- Heavy Equipment Operators
- Ironworkers
- Labourers
- Line Workers
- Heavy Equipment Mechanics
- Land Surveyor Technologists and Technicians
- Truck Drivers
- Power Line Technicians/Line Workers
- Construction Millwrights

Impact and Benefits Agreement (IBA)
- In February 2010, Nalcor Energy, Innu Nation and the Mushuau and Sheshatshiu Innu First Nations initialled an impacts and Benefits Agreement (IBA). This agreement will come into effect upon ratification by the Innu people. Nalcor’s obligations under the IBA will be incorporated, where necessary, into procurement process for the evaluation and award of contracts. All contractors, sub-contractors and suppliers involved in the Project must adhere to that procurement process. (A separate note on the New Dawn Agreement, including the IBA, is available at Tab 58)

Procurement and Contracting:
- The LCP will also make a strong contribution to the local and provincial economies through associated business opportunities. Nalcor, on a competitive basis, will give full and fair opportunity to provincial suppliers and contractors to participate in the supply of goods and services to the project. These goods and services will need to meet the commercial and technical requirements, taking into account factors such as price, technical sustainability, service and delivery.
- In accordance with the benefits strategy, Procurement will be managed from the LCP and its EPCM contractor offices in the province.
- The ability of businesses in Labrador, and the province as a whole, to provide goods and services to the Project will affect the level and nature of the economic benefits derived from it. In accordance with the benefits strategy Nalcor Energy – Lower Churchill project will conduct appropriately-timed supplier development workshops to ensure local suppliers and contractors can prepare for bidding and establish business relationships. Workshops will be held on both the island and in Labrador.

Education and Training Opportunities:
- Nalcor is committed to encouraging preconstruction training initiatives reflecting the requirements of the LCP as well as ensuring those adjacent to the resources can fully participate in the LCP.
- Nalcor will work with governments, aboriginal groups, women’s organizations, training institutions and labour organizations to:
  - Discuss labour requirements for the projects;
  - Identify existing or anticipated gaps in the labour supply pool;
  - Explore and discuss potential approaches to addressing any gaps; and
  - Offer technical advice and expertise to assist in coordination of training with relevant stakeholders.
Nalcor will also work with its contractors and subcontractors to ensure adequate workplace training is delivered to employees.

The Provincial and Federal Governments, along with Labrador’s three aboriginal groups and Nalcor Energy - Lower Churchill Project, are contributing $30 million to provide aboriginal people in Labrador with increased employment opportunities associated with major economic development activities. The result of the partnership is the establishment of the Labrador Aboriginal Training Partnership (LATP). The mandate of the LATP is to oversee a comprehensive Training-to-Employment Plan that will prepare Inuit, Innu and Métis for employment opportunities created through resource development throughout Labrador.

Nalcor Energy and NLH make annual educational contributions to MUN and CONA. In 2010, Nalcor will award more than $25,000 to students in the province who are studying in the areas of Business, Engineering Technology, Women in Trades and Engineering, or Industrial Trades. In addition to a province-wide scholarship for Industrial Trades, six scholarships are reserved for students attending CAN campuses in Labrador. Nalcor also has an internal scholarship program valued up to $15,000 in 2010.

Sources:
Boundless Opportunities Brochure Nalcor Energy: DOC-12353

Your Questions Answered: Nalcor Energy:
http://nalcorenergy.com/assets/nalcor_lowerchurchill_yourquestionsanswered.pdf

News Release: Benefits Strategy for Lower Churchill Construction Projects Ensures Opportunities for the People of Newfoundland and Labrador July 14, 2010:
http://www.releases.gov.nl.ca/releases/2010/nr/0714n01.htm

Lower Churchill Benefits Strategy: Government of Newfoundland and Labrador;
http://www.nr.gov.nl.ca/nr/LCP_Benefits_Strategy.pdf

Prepared by: Angie Philpott
Approved by:
Ministerial Approval:
14/10/2010
Key Messages:

- A key aspect of the LCP is ensuring access to both domestic and export markets. This access is essential to realize the full economic and environmental benefits of the LCP. Exporting power from Labrador to the island of Newfoundland and then onto the Maritime Provinces via a subsea link and into the Northeastern US marke is an option that Nalcor Energy has been pursuing for some time.
- The Atlantic Provinces Renewable Energy Interconnect (APREI) will enable the delivery of non-emitting generating resources in Newfoundland and Labrador, including supply from the Lower Churchill Project, to the Atlantic Canada market, and will further enable the integration of variable/intermittent generation sources such as wind and tidal energy in the region and optimization of existing generating facilities.
- Access to these significant sources of non-emitting generation will contribute to the achievement of both federal and provincial climate change targets, diversify the supply portfolio and contribute to overall operational efficiencies in the region. The APREI is also consistent with the vision of the Atlantic Energy Gateway, an initiative of ACOA, NRCan and each of the four Atlantic Provinces.
- APREI will contribute to and enable economic growth through the development of new renewable and clean energy resources in the region and will provide a gateway for exports while meeting goals for sustainability. APREI will enable additional and more diverse energy supply options for the entire Atlantic region - based on cost, reliability, flexibility and environmental attributes. Specific benefits include:
  - Increased overall market efficiency - lower overall costs for lower-carbon generation, based on the concept of a fully integrated and operated Atlantic region energy market. More robust transmission means the most efficient, cleanest generation in the region would operate first - and the highest-emission, most expensive generation would operate only as needed.
  - Enables the managed phase-out of fossil fuel generating sources in Atlantic Canada, lessening regional dependence on foreign fuel supplies for electricity generation.
  - Better integration and control of lower-carbon and renewable generation, including intermittent sources such as wind - enabling significant more renewable generation to be built in the near term.
  - Significant improvement in the overall reliability of the interconnected bulk power system.
  - Establishes a framework for effective and efficient regional system optimization.
  - Economic and fiscal benefits from the construction and operation of a strengthened regional grid and associated enabled renewable generation projects in the region.

Background and Current Status:
On June 30, 2010, the Governments of Newfoundland and Labrador (Natural Resources) and Nova Scotia (Energy) submitted an application to PPP Canada for an APREI with the intention to address the need for stronger electricity connections among the four Atlantic Provinces.

The APREI will result in a new transmission system that will interconnect the NL electricity system with that of the Maritime Provinces via a 180 km (at a minimum) subsea HVDC transmission cable between NL (Cape Ray) and NS (Sydney). The project configuration may be expanded to include additional transmission infrastructure, connected to the subsea transmission corridor.

In conjunction with this project, the provincial utilities in Newfoundland and Labrador (Nalcor Energy) and Nova Scotia (Nova Scotia Power) will build the on-shore facilities in Nova Scotia (HVDC converter station) to enable the transfer of energy delivered via the Interconnect. These converter stations may be included in the project configuration.

Estimated total project capital costs are $1.5 billion with the proposal seeking PPP Canada contribution of 25 percent ($375 million). (A separate note on financing for the APREI is available at Tab 8B)

Information on the procurement schedule and the approvals process for the project is attached as Annex A.

Quebec Letter and Reaction

August 13, 2010, Premier Williams told reporters in St. John's that he learned the Quebec government filed a written complaint to Prime Minister Harper about the P3 application. 1

The news media reported that Quebec government officials said they didn't believe the NL-NS proposal should receive federal money because it would fund transmission lines that could be used to compete with Quebec to sell power to the United States. Quebec argued the federal money would be an unfair subsidy to the two Atlantic Provinces.

Quebec Justice Minister Jean-Marc Fournier was quoted as saying the issue of Federal funding for transmission was about equity. "If Newfoundland and Labrador or another province were to receive a payment from the federal (government) for that, whereas Quebec paid for it, it would be unfair competition," he said. 2

News reports quoted Prime Minister Harper as saying, "There's a program at the conceptual stage so talking about that is purely hypothetical," he said. "If any province comes forward with a clean energy project, that would be evaluated purely on its merit." (no source yet)

NS Premier Dexter attacked Quebec's position on the P3 application. He said Ottawa spends millions every year to clear ice in the St. Lawrence Seaway to allow Quebec ports to do business and compete directly with Halifax.

o "The reality is that when good things happen for Quebec, it is seen as a triumph of federalism. But when good things can happen for other regions, they are seen as an affront for Quebec, and that just cannot be the case," Premier Dexter said. 3

o "For them to try and stand in the way of something that would be of great benefit to our region, I think, defeats the very reason for our existence as a federated country." 4

1 CE-11569
2 CE-11590
3 CE-11590
4 CE-11590
PPP Canada

- PPP Canada is a Crown Corporation recently established to support the development of public-private partnerships and facilitate the development of the Canadian PPP market. The Government of Canada established a $1.2 billion fund that is managed by PPP Canada to support PPP infrastructure projects.
- The PPP Canada Fund is a merit-based program with the objective of supporting PPP infrastructure projects that achieve value for the Canadian public, develop the Canadian PPP market and generate significant public benefits.
- Under the PPP Canada Fund, the amount of the funding support, in combination with any other direct federal assistance, may not exceed 25 percent of the project's direct construction costs.
- Eligible projects will be for the construction, renewal or material enhancement of public infrastructure within several sectors including Transport (public transit, highways, brownfield re-development, local roads and short line rail), Water, Energy (green projects), Security (disaster mitigation), Solid Waste, Culture, Sports, Connectivity and Broadband, Maritime (short sea shipping), Aerospace (regional and local airport) and Tourism.

Action Being Taken:

- None. For information purposes only.

Prepared/Approved by: Angie Philpott / Rob McGrath, DNR
Approved by:
Ministerial Approval:
14.10.2010
Annex A

Procurement Schedule:

The following presents three schedule scenarios – least favorable, likely, and most favorable. The schedule is highly dependent on:

- timelines for environmental assessment.
- global demand for cable manufacture and installation
- developer interest and timelines required to finalize agreements.

This schedule will be refined with further project definition.

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<th>Likely</th>
<th>Most Favorable</th>
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<tr>
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<td>Q4-2011</td>
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<td>Q4-2012</td>
<td>Q2-2012</td>
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<td>Q2-2015</td>
<td>Q3-2014</td>
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<tr>
<td>Construction Completion</td>
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<td>Q4-2015</td>
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Approvals Process:

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<td>Q1-2013</td>
<td>Q4-2012</td>
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Information Note
Natural Resources

Title: Summary of Tshash Petapen – New Dawn Agreement

Key Messages:
• The New Dawn Agreement represents a significant step in the tripartite land claim negotiation process towards Agreement-in-Principle as it brings closure to several significant bilateral issues between the Province and the Innu Nation. Final agreements based on the Tshash Petapen Agreement will be subject to ratification by the Innu people.

Background and Current Status:
• In September 2008, the Province and Innu Nation signed an agreement appropriately coined Tshash Petapen Agreement – or the New Dawn Agreement.
• The Tshash Petapen Agreement resolves the outstanding issues in three anticipated agreements fundamental to the future relationship between the Innu people of Labrador and the Province of Newfoundland and Labrador:
  o Innu Rights Agreement (Land Claim Agreement in Principle or AlP)
  o Lower Churchill Project Impacts and Benefits Agreement (IBA)
  o Upper Churchill Redress (upper Churchill River hydro-electric development)
• Negotiations have been ongoing between the Innu Nation and the Province of Newfoundland and Labrador in separate forums for many years. The Tshash Petapen Agreement was negotiated at the most senior levels of Innu Nation, the Province of Newfoundland and Labrador and Nalcor.
• In February 2010, the finalization of the agreements contemplated in the Tshash Petapen (New Dawn) Agreement were initialed by all parties. These agreements are subject to ratification by the Innu people.
• Since initiaing, ongoing consultations with Nalcor and the Innu Nation are being conducted pursuant to a MOU signed February 16, 2010 which fully describes the obligations of Nalcor and Innu Nation until ratification of the New Dawn Agreement.

Ratification:
• The September 2008 agreement (initialed in Feb. 2010) stipulated that the parties would ‘use every reasonable effort to complete the AlP, the IBA and an agreement on financial compensation in respect of the upper Churchill River hydro-electric development in a timely manner and to proceed to concurrent ratification and execution of these agreements on or before January 31, 2009’.
• To date, a vote by the Innu Nation regarding ratification has not taken place. According to the Innu Nation of Labrador, The last part of the process before the agreement can be submitted to the Innu people for a final vote is an agreement on Federal issues including fiscal arrangements as well as issues with the Department of Fisheries and Oceans, Parks Canada and the Department of National Defense.
• As recently as Oct. 18, 2010 media reports have speculated that the Innu Nation leadership has not gotten accurate information out to the Innu People in a timely manner.

1 http://www.thewesternstar.com/News/Columns/2010-10-18/article-1855633/There-ain%27t-no-new-dawn-a-risen%26quo%3B/1
manner and that the leadership is fearful that the Innu will reject the New Dawn Agreement.

- Until ratification and execution of all, the AIP, IBA, nor the upper Churchill River hydroelectric development will be of any force or effect.

Redress for Upper Churchill Development

- The agreement provides compensation to the Labrador Innu for impacts associated with the Churchill Falls development over the full project lifecycle:
  - Labrador Innu will receive $2 million per year upon execution of the final agreement until 2041. The payments will be indexed annually using a rate of 2.5%.
  - Labrador Innu will receive 3% of dividends received by the province earned from the plant configuration of CF(L)Co. existing at the date of the agreement. If the parent of CF(L)Co. sells its shares, the Labrador Innu are entitled to 3% of the proceeds received from the sale (reduced by the present value of expected free cash flow from dividends up to and including August 31, 2041 if sale takes place prior to September 1, 2041).
  - If new shares are issued by CF(L)Co. which have the effect of diluting the value of dividends on common shares, the Innu Nation's share of common dividends will be calculated as if the new class of shares did not exist.

- In exchange for financial considerations, the Innu Nation will provide a full release for all claims related to the Upper Churchill Hydroelectric development.

Lower Churchill Project Impacts and Benefits Agreement

- The Innu Nation receives financial compensation as follows:
  - Implementation Payments prior to first commercial power of $5.0 million per year payable upon Project sanction until commercial power. Payments are indexed to Canadian Consumer Price Index (to a maximum of 2.5%) and paid in quarterly installments. Payments shall continue for a period of not more than 10 years unless project is stopped or suspended at which time Implementation Payments would also be suspended.
  - Annual Payment:
    - If first commercial power is achieved in less than ten years, the Innu Nation is entitled to receive an Annual Minimum Payment of $5.0 million for a period not to exceed 10 years less the number of years of receipt of Implementation Payments. Payments are indexed to the Canadian Consumer Price Index (to a maximum of 2.5%) annually from the date of project sanction.
    - For each year or portion of year after first commercial power that the IBA is in full force and effect, the Innu Nation shall receive an annual payment which is the greater of the Annual Minimum Payment or 5% of After Debt net cashflow. At 10 years after project sanction, the Annual Minimum Payment is deemed to be zero.
    - The Parties agree to negotiate a mechanism to ensure that cumulative annual payments to the Innu Nation from first commercial power to decommissioning are equal to 5% of the cumulative after debt net cashflow.
    - Annual payments are subject to audit and verification.

- After debt net cashflow is determined as (all elements related to generation component of the project and determined using Generally Accepted Accounting Principles):
o Gross Revenues, less transmission costs for market access including applicable tariffs and upgrades; minus
o All operation and maintenance expenses excluding depreciation and amortization of capital assets; minus
o All debt service costs related to the project with respect to financing in place at first commercial power; minus
o Refinancing fees and related costs; minus
o Income and other taxes paid and payable during the year; minus
o Capital expenditures incurred during the year; minus
o An allowance for decommissioning costs.

- There will be an Innu Business Participation Target of $400 million. If the target is not achieved the Nalcor will pay the Innu Nation 5% of the difference between the target and the total value of contracts awarded to Innu Business.
- After first commercial power, all payments related to the IBA will be suspended during a period of force majeure.
- In exchange for financial consideration contained in the IBA, the Innu Nation provide full release and indemnity related to any adverse effects of the project upon the Innu of Labrador.

Land Claim Agreement in Principle (AIP)
- 5,000 square miles - Labrador Innu Lands (Category I)
  o The Innu will have legal title to these lands
  o Jurisdiction to make laws in relation to specified matters
  o Resource royalty sharing
  o Impacts and Benefits Agreements (IBAs) on developments
- 9,000 square miles - Labrador Innu Settlement Area (Category II)
  o Crown land, in which the Innu will have special rights and benefits concerning resource royalty sharing, consultation on environmental assessment, economic development and IBAs on major projects.
- 13,000 square miles - Category III Lands
  o Areas where the Innu people will be able to conduct their traditional hunting for migratory species of wildlife without the need for provincial government permits.
- Defined Economic Development Areas
  o The Innu will be able to enter into IBAs on most major developments.
- Land selection under review
  o Four select parcels of land have been identified as needing further refinement and will be negotiated as part of the final agreement.

Action Being Taken:
- None. For information purposes only.

Prepared/Approved by: Angie Philpott / Rob Bates / Rob McGrath, DNR
Approved by:

Ministerial Approval:
Information Note
Natural Resources

Title: P3 Application

Issue: To provide a summary and current status of the P3 Canada Fund Application

Background and Current Status:

PPP (Public Private Partnerships) Canada

- On June 30, 2010, the Governments of Newfoundland and Labrador (Natural Resources) and Nova Scotia (Energy) submitted an application to PPP Canada for an Atlantic Provinces Renewable Energy Interconnect (APREI) with the intention to address the need for stronger electricity connections among the four Atlantic Provinces.
- PPP Canada is a Crown Corporation recently established to support the development of public-private partnerships and facilitate the development of the Canadian P3 market. The Government of Canada established a $1.2 billion fund that is managed by PPP Canada to support P3 infrastructure projects that achieve value for the Canadian public, develop the Canadian P3 market and generate significant public benefits.
- PPP Canada is governed by a Board of Directors that is responsible for:
  - Overseeing PPP Canada including the management of Resources (such as the P3 Canada Fund) and its personnel;
  - Ensuring accountability for the prudent use of financial resources;
  - Making recommendations regarding infrastructure projects; and
  - Overseeing issues of risk management for the Corporation.
- Under the P3 Canada Fund, the amount of the funding support, in combination with any other direct federal assistance, may not exceed 25 percent of the project's direct construction costs.

Maritime Link Proposal

- Estimated total project capital costs for the Maritime Link are $1.5 billion. This estimate (-35%/+25%) includes a provision for interest during construction.
- The proponents (NL and NS) have requested a non-repayable contribution of 25 percent of project capital costs $375 million.
- The Proposal estimates annual asset-generated revenues to be within the range of $40-$115 million, dependent on project scope, final capital costs, financing available and required rate of return.
- As per the Term Sheet, any funding received from the P3 application will be applied to reduce the Actual Capital Costs when determined total investments of Emera and Naicor. (A separate note on the Term Sheet is available at Tab xx).

Quebec Reaction

- In August 2010, Premier Williams publicly stated that he had learned the Quebec government filed a written complaint to Prime Minister Harper regarding the P3 application.
- The news media reported that Quebec government officials said they didn’t believe the NL-NS proposal should receive federal money because it would fund transmission lines.

Comment [u1]: Need to confirm all these numbers once finalized.
that could be used to compete with Quebec to sell power to the United State. Quebec argued the federal money would be an unfair subsidy to the two Atlantic provinces.

- Quebec Justice Minister Jean-Marc Fournier was quoted as saying the issue of Federal funding for transmission was about equity. "If Newfoundland and Labrador or another province were to receive a payment from the federal (government) for that, whereas Quebec paid for it, it would be unfair competition," he said.

- Prime Minister Harper was quoted as saying, "There's a program at the conceptual stage so talking about that is purely hypothetical," he said. "If any province comes forward with a clean energy project, that would be evaluated purely on its merit."

- NS Premier Dexter attacked Quebec's position on the P3 application saying that Ottawa spends millions every year to clear ice in the St. Lawrence Seaway to allow Quebec ports to do business and compete directly with Halifax.

  o "The reality is that when good things happen for Quebec, it is seen as a triumph of federalism. But when good things can happen for other regions, they are seen as an affront for Quebec, and that just cannot be the case," Premier Dexter said.

  o "For them to try and stand in the way of something that would be of great benefit to our region, I think, defeats the very reason for our existence as a federated country."

- Nova Scotia Energy Minister Bill Estabrooks told reporters, "In my opinion, the premier of Quebec should mind his own business. He's dismissing a very valid idea which comes from two provinces that have worked very carefully in terms of giving a reliable energy service to our provinces."

- In recent weeks, members of the Bloc Québécois have raised this issue in Parliament during Question Period, accusing the federal government of hiding behind a Crown Corporation and demanding a guarantee they will not fund the proposed Maritime Link. To date the federal government has maintained that proposals will be judged on merit and that the Board of PPP Canada reviews all applications fairly and objectively.

Prepared/Approved by: Rob McGrath, DNR
Approved by:

Ministerial Approval:

17 10 2010
Information Note
Natural Resources

Title: Historical Chronology of Lower Churchill Project

Issue: To provide a historical chronology of attempts to develop the Lower Churchill

Background and Current Status:

1950's – 1970's

- The potential of all parts of the Churchill River (then called the Hamilton River) was identified in the 1950s by Brinco (the British Newfoundland Company) which had options to almost all natural resource rights in Labrador.
- Efforts during the 1960s resulted in the agreement to develop Churchill Falls with Hydro Quebec as a partner and primary customer. Under financial duress, Brinco eventually agreed to the infamous 1969 Power Contract in order to allow development to proceed. Power from Churchill Falls was first delivered in 1973. Simultaneously, preliminary plans to develop Lower Churchill were being drawn up.
- In 1975, the Provincial Government purchased the Brinco shares in Churchill Falls (Labrador) Corporation Inc (CF(L)Co). This provided 65.8% ownership of the Churchill Falls plant and transmission assets, together with 100% ownership of the rights to develop Lower Churchill which were held separately by Brinco in Gull Island Power Company Limited (GIPCo).
- In 1974-76, Newfoundland and Labrador Hydro (Hydro) attempted to pursue development of Lower Churchill, including an 800 MW HVDC transmission line (the Infeed) to Soldier's Pond on the Avalon Peninsula. An agreement with Hydro-Quebec to transmit excess power across that province to prospective customers was also required, but HQ refused, offering only to buy the power at the border. The project was shelved in 1976.
- In 1976, Government requested by Order in Council that CF(L)Co supply 800 MW of power to Hydro, to commence in 1983. This would have enabled Hydro to build the Infeed to support Island power needs. CF(L)Co refused and Government initiated court action, but in 1983, The Newfoundland Supreme Court dismissed Government’s case. Government subsequently appealed to the Newfoundland Court of Appeal, but lost again.
- In 1979, Government and the Government of Canada formed the Lower Churchill Development Corporation (LCDC) under an ownership split of 51:49 respectively, and provided the new company with an option on development rights. A number of studies were completed, but in the absence of any transmission access across Quebec, no agreement to develop emerged. In June, 1980, Company officials recommended to LCDC shareholders that the company should proceed with Muskrat Falls and a HVDC line to the Island. The Government of Canada declined to proceed.

1980's – 1990's

- In 1980, the Lower Churchill Hydroelectric project was released from environmental assessment (EA) and received full federal approval. The 1980 EA approval covered the Generation, AC Transmission and Labrador – Island HVdc Transmission components.
Currently, the same project components are undergoing EA's, albeit separately which is the same scenario that was followed leading up to the 1980 approval.

- In 1980, Government passed the Upper Churchill Water Rights Reversion Act. This Act was challenged in court by Quebec, Hydro-Quebec, CF(L)Co, and lenders. The Newfoundland Court of Appeal found the Act valid, but it was further challenged in the Supreme Court of Canada, with additional interventions from Canada, MB, BC, and SK. In May, 1985, the Supreme Court ruled that the Act was beyond the competency of NL because it was a colourable attempt to derogate from the rights of Hydro-Quebec which were beyond NL's jurisdiction.

- In 1984, Hydro and Hydro-Quebec agreed on a Statement of Intent regarding various matters related to the Churchill River. Most notable were that: there was a necessity of a fair and equitable return to Newfoundland as owner of the resource; the basis exists for the recapture of a significant block of power and energy from Churchill Falls; the 2016 renewal phase of the Hydro-Quebec Contract would be reviewed, and; cooperation including water management in relation to Lower Churchill development would be negotiated.

- An agreement with Hydro-Quebec was concluded in 1990 to develop Gull Island, Muskrat Falls, the Infeed and some enhancements to Upper Churchill. A proposal was made to the Government of Canada, with CDC as the developer and Hydro-Quebec and Island customers for the power. The proposal did not proceed.

- In 1996, the Tobin government reopened the efforts to develop Lower Churchill. By March, 1998, it was ready to announce jointly with QC a new project configuration, consisting of Gull Island, Muskrat Falls, additional generation at the Lobstick control structure, diversion of the upper parts of two Quebec rivers into the Churchill to supply additional energy, and the Infeed, the last of which would be contingent on federal funding assistance. However, failure to agree on various aspects resulted in removal of the Lobstick generation and the diversions, and the Infeed was abandoned due to failure to agree financial help from Canada.

2000 – present

- In late 2002, the Grimes administration had prepared a deal with QC, which would see NL develop the Gull Island generation, and sell all power with an option to recall up to 500 MW to Hydro-Quebec at the border. The price was established to include an escalator clause. (A comparison of this deal with the current proposal is available at Tab 10)

- The Grimes government was defeated in the 2003 election, and Government embarked on a new approach.

Action Being Taken:

- None. For information purposes only.

Prepared by: Dave Bazeley, DNR
Approved by:
Ministerial Approval:
15 10 2010
Note
Natural Resources

Title: GHG Reductions (NL and Region)

Issue: To provide a summary of the emission reductions in both NL and the region that can be expected from the Lower Churchill development

Background and Current Status:

Emission Reductions in Newfoundland and Labrador

- The Holyrood Thermal Generating Station (Holyrood) consists of three generating units fired by heavy fuel oil (Bunker C or #6). One unit has been modified to allow it to operate as what is known as “synchronous condenser” — does not burn any fuel, but provides conditioning for the transmission system to allow more power to be sent from a generation source (for example Bay d’Espoir) to an area that has customers but little or no generation, for example the Avalon Peninsula.
- When the Labrador-Island link is available, the remaining two units at Holyrood will be converted to be able to be synchronous condensers, and it is anticipated that this will be their primary function once power is available from Labrador.
- In the five years prior to 2003, Hydro burned an annual average of 2.6 million barrels of fuel oil, with resulting emissions of greenhouse gases of 1.3 million tonnes. After the AbitibiBowater mills in Stephenville and Grand Falls closed, the need for Holyrood was reduced. In the period 2009 to 2010, Hydro is forecasting it will burn an annual average of 0.77 million barrels, and the average emissions will fall to 0.4 million tonnes.
- Non-industrial electricity demand on the Island continues to grow moderately, and when the Voisey’s Bay Nickel hydromet facility in Long Harbour is in full service, it will increase further.
- In 2015 — the last full year before power from Labrador is expected to be available — the fuel oil need for Holyrood is forecast to be 2.34 million barrels, with associated GHG emissions of 1.15 million tonnes, based on average rainfall and wind conditions. Nalcor’s forecast indicates emissions at this approximate level would continue into the future gradually increasing to 1.8 million tonnes by 2030. Power from the project will eliminate these emissions.
- Nalcor has also estimated that total emissions avoided in Newfoundland and Labrador to 2065 as a result of this project would be 82 million tonnes.
- When the Lower Churchill Project comes on stream, the only GHG emissions from fuel combustion for power generation in Newfoundland and Labrador will result from remote diesel generation and local backup for outages. Diesel use for these is less than 0.2 million barrels, with emissions less than 100,000 tonnes.

Emission Reductions in Other Jurisdictions

- Nalcor’s submission to the Joint Panel reviewing the generation project stated that “it is reasonable to assume that, at a minimum, any sales of power from the Project into [all the potential external markets] will displace natural gas-fired generation and its
associated emissions." Nalcor used an emission factor of 0.42 t/MWh to estimate these emissions reductions.

- Emissions reductions that could be attributed to the project in other jurisdictions may be higher, if the case can be made that the project power displaced or avoided generation with higher emission rates, such as coal-fired generation.
- Muskrat Falls would produce 4,900,000 MWh annually. Island consumption would initially be 1,500,000 MWh, so 3,400,000 MWh would flow to other jurisdictions. Thus the initial minimum emissions reductions in other jurisdictions would be 1.4 million tonnes.
- Over time, the Island consumption is forecast to grow, so that by 2030, exports from Muskrat would be reduced to 2,500,000 MWh, with minimum associated emissions reductions of 1.05 million tonnes.

Action Being Taken:

- None. For information purposes only.

Prepared by: Dave Bazeley, DNR
Approved by:

Ministerial Approval:

15 10 2010
Information Note
Natural Resources

Title: Environmental Assessment - Lower Churchill Hydroelectric Generation Project

Issue: To provide the current status of the Lower Churchill Hydroelectric Generation Project environmental assessment process.

Background and Current Status:
- On November 30, 2006, the Lower Churchill Hydroelectric Generation Project ("the Lower Churchill Project" or "LCP") project registration and description was filed with the Canadian Environmental Assessment Agency (CEAA).
- LCP as outlined in the project registration and description, consists of a generating facility at Gull Island, a generating facility at Muskrat Falls, a 735 kilovolt (kV) transmission line between Gull Island and Churchill Falls, and a 230 kV transmission line between Muskrat Falls and Gull Island. The total installed generating capacity at Gull Island will be approximately 2,000 megawatts (MW). The planned total installed capacity at Muskrat Falls is approximately 800 MW.
- A current pending arrangement under negotiation with Emera Inc. would see sequencing of the generation project reversed with Muskrat Falls developed as the first phase of the project. This will impact on the timing of generation and transmission infrastructure at Muskrat Falls, Gull Island, and Churchill Falls however Nalcor believes that this does not materially impact on the environmental assessment process.
- In December 2007, draft guidelines for the Environmental Impact Statement (EIS) required of the proponent were released and the project was formally referred to an independent review panel. The draft guidelines were open to public comment which ultimately closed in February, 2008.
- In June, 2008 a draft agreement and Terms of Reference for the establishment of the Federal/Provincial Joint Review Panel (JRP) was released by CEAA and public comment was invited closing in July, 2008.
- On July 15, 2008, final guidelines for the EIS were released.
- Lesley Griffiths and Herbert Clarke were appointed as co-chairs of the JRP with Meinhard Doelle, Keith Chaulk, and James Igliotore as additional members of the five-member panel. In March, 2010 Mr. Chaulk resigned his position on the JRP and was subsequently replaced by Cathy Jong.
- A recurrent theme in the public comments has been that this project registration and description does not include transmission infrastructure (which is proceeding through its own environmental assessment process as the Labrador-Island Transmission Link) and this amounts to "project splitting" for the purposes of environmental assessment. (A separate note on the Labrador-Island Transmission Link EA Process is available at Tab 2b)
- Nalcor disputes this characterization. A January 21, 2010 Supreme Court of Canada ruling in MiningWatch Canada v. Canada (Minister of Fisheries and Oceans et al.) effectively prevents project splitting by requiring that the scope of EA be at least equivalent to the scope of the proponent’s project. To date there has been no requirement to combine the projects for the purposes of EA and both projects continue to proceed through their respective processes separately.
• A second theme from the comments is uncertainty surrounding the impacts of damming and flooding, and in particular, effects of catastrophic dam failure. Nalcor has responded to these points with supplementary information including reservoir maps and a dam break study.

• Hydro Quebec responded to invitations for public comments on a number of occasions as the process has unfolded. They primarily argue two points:
  o That the depth and breadth of the EIS is insufficient for a project of this magnitude and does not match the same standard they have been held to in environmental assessments for their own projects; and
  o That Nalcor has not met the requirements of the EIS guidelines as laid out by the JRP.

• On the first point, Nalcor argues that the guidelines for the EIS were set through a public process and by default could not be deficient as anyone could comment and influence the final guidelines. On the second point, Nalcor argues that it has fully answered all elements of the guidelines and has co-operated fully with all requests for additional supplementary information from the JRP.

• Arising from its review of the EIS document and related public comments and presentations, the JRP has issued a series of formal requests for additional information with a view to determining the sufficiency of the EIS to proceed to the next phase of EA (public hearings). To date, there have been a total of four rounds of requests for supplementary information with responses posted and public comment invited for each round. The fourth round is still ongoing and in particular, a period of public comment closed on October 21, 2010 on Nalcor’s submission of a Consultation Assessment Report in response to information request JRP.151.

• At such time as the JRP determines sufficiency of the EIS, it will provide a 45 day notice of the commencement of those hearings. It is possible that the JRP public hearings will start in January 2011. There are no mandatory timelines for the completion of hearings or for the JRP to submit its report to Ministers. Upon receipt of the final report, Ministers endeavour to coordinate a federal/provincial response within 60 days.

• In light of recent public statements concerning the sequencing of the project, another series of information requests has been issued to Nalcor. ENVC has been advised by Nalcor that it will make every effort to answer questions on or before January 10, 2011.

Action Being Taken:
• Nalcor continues to work within the EA framework by responding to information requests of the Joint Review Panel until a finding of sufficiency to proceed to public hearings is made by the panel.
• DNR is monitoring process and participating as required.

Prepared/Approved by: Rob Bates / Rob McGrath, DNR
Approved by:

Ministerial Approval:

15/10/2010
Information Note
Natural Resources

Title: Environmental Assessment – Labrador-Island Transmission Link

Issue: To provide the current status of the Labrador-Island Transmission Link environmental assessment process.

Background and Current Status:

- On February 2, 2009, a press release by the NL Department of Environment and Conservation (ENVC) indicated that the Labrador-Island Transmission Link project had been submitted (Nalcor Energy being the proponent) and that the undertaking had been registered for provincial Environmental Assessment.
- The project, as described in the registration documents, contemplated the construction and operation of a transmission line and associated infrastructure within and between Labrador and the Island of Newfoundland. This included a High Voltage Direct Current (HVdc) overhead transmission line planned to commence at a converter station at Gull Island in central Labrador, proceeding southeast across Labrador, crossing the Strait of Belle Isle via submarine cables, and proceeding across Newfoundland to end at a converter station at Soldiers Pond on the Island’s Avalon Peninsula. The steel lattice transmission towers will be approximately 43m in height and carry three wires (two conductors and a ground). Construction could tentatively begin in 2011 and conclude in late 2014.
- A current pending arrangement under negotiation with Emera Inc. would see sequencing of the generation project reversed with Muskrat Falls developed as the first phase of the project. This may have some impact on the timing of transmission infrastructure at Muskrat Falls, Gull Island, and Churchill Falls however Nalcor believes that this does not materially impact on the environmental assessment process.
- The initial proposal also contemplated two transmission routes on the Island portion of the province, the Long Range Mountain Route and the Gros Mome Park Route which passed through portions of Gros Morne National Park on the Northern Peninsula.
- On March 23, 2009, after a legislatively mandated period of public comment, the Minister advised the proponent that the undertaking would require the preparation of an Environmental Impact Statement (EIS).
- On April 6, 2009 the Department of Environment and Conservation advised the proponent and Public that an EA committee had been appointed to provide advice and to prepare draft guidelines for conducting the EIS.
- On September 15, 2009, Nalcor filed a revised undertaking which removed from consideration the transmission route that passed through portions of Gros Morne National Park. ENVC subsequently issued a press release on September 22, 2009 indicating this to the general public.
- On November 26, 2009, the Canadian Environmental Assessment Agency (CEAA) issued a Notice of Commencement for the project to begin a federal environmental assessment (in the form of an “environmental screening” which requires that the responsible authority document environmental effects and determine ways to eliminate or mitigate harmful effects through modifications to the plan) in those portions of the project that are directly related to federal powers such as the sub-sea cable crossing the Strait of Belle Isle, construction and operation of electrodes in Lake Melville and
Conception Bay, disposal of dredge material at sea, and construction and operation of potential crossings or aerial cables over navigable waterways.

- On April 28, 2010, CEAA issued a revision to its November 26, 2009 Notice of Commencement indicating that the project would now be subject to a comprehensive study, a more "full-fledged" environmental process which requires public input, assessment of alternatives, and follow-up programs.
- On July 19, 2010, a third amendment to the Notice of Commencement was issued indicating that a series of amendments to the Canadian Environmental Assessment Act came into force on July 12, 2010. These amendments have led to CEAA playing an enhanced role in the EA of the federal elements of the project and it will perform the duties and functions of the responsible authority until the submission of the comprehensive study report to the Minister of Environment.
- In taking over as the responsible authority for the federal portion of the EA, CEAA publicly released a backgrounder on the project and issued a Public Notice seeking public input by August 20, 2010 on the project and conduct of the comprehensive study. To date, public feedback has not been posted to the CEAA website.
- CEEA and ENVC are working collaboratively on a joint review process to coordinate federal and provincial jurisdiction. The draft terms of reference for the Environmental Impact Study and Comprehensive Study have been submitted to aboriginal groups for review and then the general public. After review by ministers of any input, the Terms of Reference will be released to Nalcor so it can submit its documents. There will be no panel review in this process. The process is expected to take more than a year to complete.
- Nalcor has indicated that its work on the EIS would satisfy both the provincial and federal components of the EA process.

Action Being Taken:
- DNR is monitoring process and participating as required.

Prepared/Approved by: Rob Bates / Rob McGrath, DNR
Approved by:

Ministerial Approval:

15/10/2010
Title: Lower Churchill Construction Projects Benefits Strategy

Issue: To provide a summary of the Lower Churchill Construction Projects Benefits Strategy

Background/Current Status:
- On July 14, 2010, Government released the Lower Churchill Construction Projects Benefits Strategy. This Strategy applies to both the Lower Churchill generation project (LCP) and the Labrador-Island Transmission Link, a High Voltage Direct Current (HVdc) system from central Labrador to the area of Soldiers Pond on the island portion of the province. The Strategy is intended to ensure opportunities for the people of Newfoundland and Labrador during the construction phase of the Lower Churchill development.
- Work related to the generation projects will include construction of the Gull Island and the Muskrat Falls hydroelectric developments. The development of these two hydroelectric facilities will provide at least 5.5 million person hours of engineering and project management employment and 19 million person hours of construction employment in the province.
- Work from the Labrador-Island Transmission Link will result in at least one million person hours of engineering and project management employment and 2.5 million person hours of construction employment in the province.
- Some main highlights of the Strategy include:

Project Management:
- Project management activities associated with the project will be executed in the province.
- The Engineering, Procurement and Construction Management (EPCM) contractor will establish their own engineering, procurement, construction management and overall project management office in the province with appropriate personnel and decision-making authority.

Engineering and Project Management:
- The Lower Churchill Construction Project and its EPCM contractors and subcontractors will perform all engineering and project management, with the possible exception of specialized engineering, for the project in the province.
- All reasonable efforts will be made to have specialized engineering performed in the province. In the event there is specialized engineering undertaken outside the province, Nalcor Energy-Lower Churchill Project will ensure that such work is done in full collaboration with and is integrated into the local engineering effort.
- No less than the following number of engineering and project management hours will take place within the province:
  - Gull Island Hydroelectric Development – 4.0 million person hours
  - Muskrat Falls Hydroelectric Development – 1.5 million person hours
  - Transmission System – 1.0 million person hours

Procurement and Contracting:
- Procurement will be managed from the Lower Churchill Project and its EPCM contractor offices in the province.

Comment [1]: Specifically, do these numbers change resulting from the change of location of the Converter Station? (i.e. originally located at Gull Island, now presumably at Muskrat)
The Lower Churchill Project and its EPCM contractor will be responsible for the following:

- Issue all Requests for Proposals and procurement related documents
- Primary point of contact for all inquiries regarding contracts and procurement
- Co-ordinate supplier development activities
- Make all decisions related to procurement
- Issue procurement awards
- Conduct all meetings with suppliers related to procurement

Contractors and sub-contractors will be aware of, and must comply with, the applicable terms of the benefits strategy.

Nalcor Energy-Lower Churchill Project will conduct appropriately-timed supplier development workshops to ensure local suppliers and contractors can prepare for bidding and establish business relationships. Workshops will be held on both the Island and Labrador.

Construction and Assembly

- No less than the following number of construction and assembly person hours will take place in the province Benefits Strategy for Lower Churchill Construction Projects Ensures Opportunities for the People of Newfoundland and Labrador
  - Gull Island – 13.0 million person hours
  - Muskrat Falls – 6.0 million person hours
  - Transmission System – 2.5 million person hours

- A construction hiring protocol will be established for generation and transmission construction.

Procurement and Contracting

- NL contractors, service providers, consultants, and suppliers in the Province will be provided with full and fair opportunity to participate, on a competitive basis, in the supply of goods and services.
- Appropriately timed supplier development workshops, including specific workshops in Labrador, will be held so potential Newfoundland and Labrador suppliers and contractors can prepare for bidding opportunities and establish business relationships, and promote and encourage technology transfer opportunities.

- LCP shall develop and conform to a contracting and purchasing policy that shall require LCP and its primary contractors (among other things):
  - Provide reasonable advance notice to the local supply and service community of all procurement opportunities;
  - Become familiar with Newfoundland and Labrador contractor capabilities, and size and design packages in a manner which recognizes those capabilities;
  - Communicate with Newfoundland and Labrador suppliers and contractors and when requested make reasonable efforts to guide them in qualifying for future proposals and contracts;
  - Require benefits information as part of the tendering and request for proposal processes in sufficient detail to assess the benefits to be derived from a proposal or tender.

Gender Equity

- Nalcor Energy-Lower Churchill Project will implement a gender equity program, including a women’s employment plan.
• The program will establish quantitative goals and emphasize continuous improvement which will increase access and employment for women.

Diversity
• The objectives of the diversity program will be to address employment equity for the project, including access to employment for disadvantaged groups.

Reporting
• The Provincial Government will be provided monthly and quarterly reports for the projects' duration by Nalcor Energy-Lower Churchill Project.
• These reports will include information such as the total number of person hours of work and number of person hours of project management and design work.

Action Being Taken:
• None, for information purposes only.

Prepared/Approved by: Susan Brewer / Rob McGrath, DNR

Approved by:

Ministerial Approval:

17.10.2010
Information Note
Natural Resources

Title: Lower Churchill Project Market Opportunities

Key Messages:
Suggestions for Ken’s Assistance:
• Market opportunities arise from four key market conditions: aging generation capacity that must be replaced, displacement of GHG’s (required by federal, provincial and state regulations) requiring cleaner power, growth in demand net of demand side management and conservation targets, and a desire for dispatchable power due to increased prevalence of intermittent renewables such as wind and solar.

• Seven key markets considered (Newfoundland and Labrador, Nova Scotia, New Brunswick, Ontario, Quebec, New England, and New York) with market analysis done by Navigant Consulting. Opportunities in Quebec are relatively less than the other six markets, but combined the market opportunity is 135 TWh/year, almost 8 times the size of the annual output from the project.

Background and Current Status:
• In 1992, the National Energy Board issued a report detailing comparative cost of generation for an extensive list of generation projects. Using these rankings, Gull Island’s Levelized Unit Energy Cost (LUEC) and the weighted average combined LUEC for Gull Island and Muskrat Falls have the top economic ranking of all potential hydro projects identified in the report. Muskrat Falls taken individually is ranked third among all remaining undeveloped.

• Nalcor indicates that this independent ranking of the economic competitiveness of LCP as a supply to meet market requirements is consistent with its own analysis.

• Identification of market opportunities have moved forward from this starting point, with Nalcor recognizing that the delivered cost of the Project must be competitive with the alternate supply options available in the respective markets.

• Market opportunities are derived from four key underlying market conditions:
  o Servicing existing demand currently served by aging generation facilities that are forecast to reach the end of their service lives in the next 10 to 20 years;
    - Newfoundland and Labrador – 500 MW Holyrood generating station will need major refurbishment to remain open post 2020.
    - Nova Scotia – 1,430 MW of the installed capacity in Nova Scotia will reach the end of the expected service life by 2030 or earlier.
    - New Brunswick – 322 MW of the installed capacity in New Brunswick will reach the end of the expected service life by 2030 or earlier.
    - Ontario – 2,000 MW of coal capacity is to be shut down this year, with the remaining 4,000 MW shut down by 2014. In addition, 2,200 MW at the Pickering nuclear facility will be shut down by 2020.
    - Other – US electricity sector is facing similar challenges with over 45,500 MW of installed capacity expected to be retired by 2035.

• Proposed new projects in various jurisdictions represent competition to LCP but Nalcor indicates that proposals are dominated by Gas, Nuclear, and Wind generation which do not have the positive attributes of hydro
power. Only projects in Quebec (totalling 2,512 MW) and Ontario (totalling 2,026 MW) are hydroelectric projects and Nalcor states that it is confident that LCP is cost competitive with those projects.

- Displacement of existing GHG emitting thermal generation that must be reduced or shut down completely to comply with federal and provincial regulatory requirements;
  - Market demand for non-emitting generation will be driven by GHG regulation and eligibility under the renewable portfolio standards (RPS) of many jurisdictions.
  - The integration of additional renewable generation (such as wind) in key markets through RPS is an additional market opportunity because the introduction of large quantities of intermittent renewable generation will have operating implications that will increase the requirement for dispatchable generation. In this sense, hydro power is superior in that it is both non-emitting and dispatchable.
  - Of 24 coal plants in Ontario, New Brunswick, and Nova Scotia, 22 will reach the end of their economic lives by 2030 and given stringent federal regulations for the efficiency of coal plants reaching the end of their service lives Nalcor feels that much of this capacity will be retired rather than retrofitted.
  - In addition to those in Canadian jurisdictions, New England and New York have adopted RPS.
- Growth in demand, net of demand side management and conservation targets;
  - Growth in demand for energy and capacity over the next decade is forecast to be relatively moderate to low, however it indicates that this forecast is based in part on aggressive Demand Side Management and Conservation targets in a number of jurisdictions. Should jurisdictions fall short of these targets, higher growth rates than forecast will result.
  - The United States Department of Energy forecasts total electricity demand to increase by 26% from 2010 to 2035, and average annual load growth of about 1%.
- Desire for dispatchable energy sources in a preferred supply portfolio.
  - Large hydro is attractive in any market supply mix because of its operating flexibility relative to other sources. It can be dispatched on a timely basis when the requirement is highest due to demand and/or lack of availability of intermittent sources.

* On behalf of Nalcor, Navigant Consulting undertook an assessment of the market potential of various markets for the period out to 2030. Navigant arrived at the following conclusions:
  - Analysis of the forecast net change in the supply/demand balance and the potential for displacement of carbon production represents a significant market potential through 2030. The seven markets considered (Newfoundland and Labrador, Nova Scotia, New Brunswick, Ontario, Quebec, New England, and New York) show a combined market potential of 135 TWh/year, including 22 TWh/year from load growth net of new committed capacity, 13 TWh/year from replacement of aging Canadian generating capacity, and approximately 100 TWh/year from the opportunity to displace existing fossil generation.
  - The overall identified market potential is almost eight times the size of the annual output of the projects in 2020.
o By 2020, market potential in Nova Scotia and New Brunswick is estimated to be almost 13 TWh/year. 60% of this arises from potential displacement of fossil fuel generation with the remainder due to potential replacement of aging infrastructure. Little load growth is expected although this could increase if aggressive demand side management and conservation targets are not achieved.

o Ontario has a market potential of some 44 TWh/year arising from retirement of coal and nuclear plants and has a Feed in Tariff program which is expected to lead to the introduction of 2,500 MW of renewable generation – this will increase the need for dispatchable power.

o New York and New England represent large markets with a combined 96 TWh/year of market potential attributed to a combination of load growth and displacement of fossil fuel generation. No attempt was made to quantify potential arising from the replacement of aging infrastructure in the US.

o Quebec shows a relatively low market potential of approximately 3 TWh/year by 2020.

Based on Navigant's analysis and conclusions, Nalcor believes that the project is justified from an energy perspective, recognizing that it must deliver competitively priced power to take advantage of market opportunities.

Action Being Taken:

• None required. Note is for information purposes.

Prepared/Approved by: Rob Bates / Rob McGrath, DNR
Approved by:

Ministerial Approval:

17/10/2010
Title: Holyrood Decommissioning and Future Use

Issue: To provide background information on the decommissioning of Holyrood and its future use

Background and Current Status:
- The energy generated at the Holyrood Thermal Generating Station (Holyrood) is vital to the energy system—on average it produces between 15 and 25% of the island's requirements.
- Holyrood is used on the Island System for two purposes:
  1. To provide generating capacity in the fall-winter-spring seasons so that enough power is available to meet the requirements of customers at these times of high rates of use; and
  2. To provide the difference in energy requirements over the course of the year between what customers use and what the hydroelectric and wind generation can supply, which can vary quite considerably from year to year. The Labrador-Island link is expected to replace both of these needs.
- With a transmission link to the island from the lower Churchill, the generating units at the Holyrood plant will be required, as a minimum, to function as synchronous condensers to provide system voltage support as well as to provide a backup supply for some period after the HVdc link comes in-service.
- Operating the generating units as synchronous condensers does not burn any fuel, but provides conditioning for the transmission system to allow more power to be sent from a generation source (for example Bay d'Espoir) to an area that has customers but little or no generation, for example the Avalon Peninsula. By not burning fuel to operate, the plant is not releasing emissions into the environment.
- Due to the age of these assets, significant capital investments may be required to ensure that they are capable of operating reliably until their anticipated end of life.
- Typically, as thermal plants age, they are de-rated to account for their decreasing reliability caused by increasing failure rates of aging components. Hydro must determine what is required for the Holyrood plant to function until its anticipated end of life. To facilitate this, the Public Utilities Board has approved a Condition Assessment of the facility, which Hydro is currently carrying out.

HR Issues?
Timing?

Action Being Taken:
- None. For information purposes only.

Prepared by: Karen O'Neil (Nalcor), Dave Bazeley, Rob McGrath (DNR)

Approved by:

Ministerial Approval:
Information Note
Natural Resources

Title: Summary of Lower Churchill Project economics as outlined in Nalcor's Supplemental Report on Need, Purpose, and Rationale.

Key Messages:

Background and Current Status:
- At the time of the report, firm market and project financing arrangements were not available. Therefore, the following is Nalcor's preliminary estimates, financial analyses, risk assessments and sensitivities.

Generation
- Capital costs for the generation component of the project are as follows:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Gull Island ($ millions)</th>
<th>Muskrat Falls ($ millions)</th>
<th>Total ($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Civil Works Costs</td>
<td>1,725</td>
<td>841</td>
<td>2,566</td>
</tr>
<tr>
<td>Total Electrical and Mechanical Works Costs</td>
<td>1,031</td>
<td>595</td>
<td>1,626</td>
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<tr>
<td>Total Construction Facilities and Support Costs</td>
<td>456</td>
<td>251</td>
<td>707</td>
</tr>
<tr>
<td>Total Transmission Costs</td>
<td>215</td>
<td>83</td>
<td>297</td>
</tr>
<tr>
<td>Total Management, Engineering, and Other Costs</td>
<td>854</td>
<td>441</td>
<td>1,295</td>
</tr>
<tr>
<td>Totals</td>
<td>4,280</td>
<td>2,210</td>
<td>6,490</td>
</tr>
</tbody>
</table>

Composition of Capital Expenditures

| Labour                                | 1,764                    | 852                         | 2,617              |
| Materials                             | 1,703                    | 1,077                       | 2,780              |
| Equipment                             | 813                      | 281                         | 1,093              |
| Totals                                | 4,280                    | 2,210                       | 6,490              |

Source: Table 3-10 in Response to IRP # JRP.11 as cited in Supplemental Report on Need, Purpose, and Rationale, Prepared in Response to IRP # JRP.146

- For the purposes of the investment evaluation, "Other Costs" include interest during the construction period and escalation.

Transmission
- Nalcor continues to advance multiple market access alternatives for the Project. Export markets may be reached either via the Hydro-Quebec TransEnergie system or via a submarine HVdc transmission system through Newfoundland and on to the Maritime provinces.
- Nalcor has considered a range of costs for transmission access for the purposes of economic modeling. To be conservative, Nalcor has selected the highest end of the range.
- The Supplemental Report on Need, Purpose, and Rationale does not provide further details on transmission elements other than to say that a final determination of the transmission route for the project will be made at project sanction.

Comment [U1]: This note may be replaced as more information becomes available.

Comment [U2]: Some figures in table do not add precisely - presumed to be rounding issue.

Comment [U3]: Should we be more explicit about the transmission route here - e.g. Long Range Mountains and Maritime link? If so, is there more information available? (R. Bates)
**Investment Evaluation**

- Based on assumptions used in its analysis, the Project would realize a rate of return on equity of 14.7%, which exceeds its targeted return on equity of 12%.
- Using the targeted 12% rate of return, the cost-out price for energy from the generating sites is $43 per MWh (expressed in 2010 dollars).
- Nalcor has undertaken a sensitivity analysis for the Project with four key variables adjusted to determine the impacts on the Project's rate of return. In order of significance the variables are market price, capital costs, interest rate, and capital structure. Starting with the base return to equity of 14.7%, a decrease in market price of 15% still yields returns near the targeted 12% and similar changes in other variables will yield returns that still exceed the 12% target.

**Projected Financial Benefits**

- Financial benefits from the project will be realized in two primary ways:
  - Financial returns from the project – The primary source of benefits to the NL economy will be net cash flow (cash available after capital costs, operating costs, tariffs, and other costs are deducted from project revenue) from the project. In a capital intensive project such as LCP, net cash flows will be negative during construction and will gradually increase over time as the debt used to finance the project is repaid. Financial benefits will accrue first to Nalcor itself as project owner and then to the Government of NL as owner of Nalcor. Ultimately, net cash flow will increase to approximately $1.1 billion annually (expressed in 2010 dollars) after the debt has been retired.
  - Economy-wide benefits – The Government of NL will benefit as those employed directly by the project pay income and consumption taxes. The NL labour force will benefit from direct employment opportunities available during the construction phase of the project as well as from indirect and induced employment and income as direct and indirect income flows through the economy. There will also be employment and income benefits from the smaller-scale but long-term operation of the facilities. Additionally, the business community will benefit as they avail of supply opportunities.

- The financial benefits to the NL economy as follows (millions of 2010 dollars):

<table>
<thead>
<tr>
<th>Income to NL Labour and Business</th>
<th>Period Totals</th>
<th>2010-20</th>
<th>2021-30</th>
<th>2031-40</th>
<th>2041-50</th>
<th>2051-60</th>
<th>2061-70</th>
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</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>1,328</td>
<td>1,328</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Indirect</td>
<td>331</td>
<td>331</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Induced</td>
<td>367</td>
<td>367</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Total From Construction</td>
<td>2,026</td>
<td>2,026</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Operations</td>
<td>Total</td>
<td>1,027</td>
<td>179</td>
<td>188</td>
<td>198</td>
<td>208</td>
<td>218</td>
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<tr>
<td>Direct</td>
<td>514</td>
<td>18</td>
<td>90</td>
<td>84</td>
<td>99</td>
<td>104</td>
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<tr>
<td>Indirect</td>
<td>321</td>
<td>11</td>
<td>56</td>
<td>99</td>
<td>62</td>
<td>65</td>
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<tr>
<td>Induced</td>
<td>193</td>
<td>7</td>
<td>34</td>
<td>36</td>
<td>37</td>
<td>39</td>
<td>41</td>
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<tr>
<td>Total From Operations</td>
<td>1,027</td>
<td>179</td>
<td>188</td>
<td>198</td>
<td>208</td>
<td>218</td>
<td></td>
</tr>
<tr>
<td>Total Income to NL Labour and Business</td>
<td>3,053</td>
<td>2,051</td>
<td>179</td>
<td>188</td>
<td>198</td>
<td>208</td>
<td>218</td>
</tr>
</tbody>
</table>

**Comment [U6]:** A number of figures in the table do not add precisely – again presumably rounding errors.
In its role as developer of the project, Nalcor will be the recipient of direct financial benefits of the project.

Consistent with the terms of the Impact and Benefits Agreement (and once ratified), a royalty of 5% of after-debt net cash flow will be paid to the Innu Nation on behalf of the Innu of Labrador. Subsequent to the royalty share, the government of Newfoundland and Labrador receive a dividend at its discretion, and any amounts not paid out are retained by Nalcor for investment in other energy-related activities.

In particular, it is beyond Nalcor's mandate to influence how government dividends are utilized. Funds retained within Nalcor will be utilized for investments and business that fall within its mandate without limitation as to which region of the province they might be used in.

**Assumptions**

- Nalcor has evaluated the project using the following key financing assumptions:
  - Length of analysis – 50 years from the full in-service date
  - Debt-equity ratio – 70/30
  - Borrowing term – 30 years
  - Interest rate – 7.3%
  - $US-$CDN exchange rate - $0.964
  - Equity target rate of return – 12%

- Nalcor assumes that financial markets will have returned to normalcy at the time it attempts to secure debt financing. This new state of normal activity is still evolving and these financing assumptions, developed in conjunction with Pricewaterhouse Coopers LLC (PwC) based on their experience with projects of LCP type and magnitude, are in an appropriate range.

- In its analysis, Nalcor uses long-term price forecasts by PIRA Energy Group (PIRA). The analysis creates a representative mix of peak and off-peak sales across eastern North American markets, resulting in a portfolio average price for energy that Nalcor feels is both conservative and reasonable. Beyond 2025 (the last year of PIRA's price forecast), Nalcor applies a 2% annual escalation to prices. Nalcor considers this conservative due to higher annual growth rates within the forecast period.

**Comment [U7]: Need to confirm dividend policy**
Title: Aboriginal Involvement - Consultation

Key Messages:

- Nalcor has provided significant and appropriate opportunities with the ten Aboriginal groups and communities to be consulted in respect of the Lower Churchill Project. Public consultation in Labrador is a priority, especially for the generation project; however, as consultation for the transmission project progresses, the island portion of the province will be engaged in the project's planning process.

- Nalcor has presented its understanding of aboriginal concerns and issues in the aboriginal consultation report entitled Consultation Assessment Report submitted to the Joint Review Panel on September 27, 2010, as well as its responses to them as required.

- Nalcor has collected information and issues that relate to the Project. Further, Nalcor has researched these Aboriginal groups and communities, to obtain publicly available information from a number of sources, to expand their knowledge of Aboriginal interests, values, concerns, contemporary and historic activities, Aboriginal traditional knowledge and important issues facing these Aboriginal groups.

- Nalcor will continue to engage with and offer opportunities for involvement during the development of the Project.

Background and Current Status:

- Nalcor Energy has identified nine Aboriginal groups and communities that they have consulted with regarding the Lower Churchill Project: in Newfoundland and Labrador, Innu Nation, NunatuKavut (formerly known as Labrador Metis Nation), and the Nunatsiavut Government and, in Quebec, the Innu communities of Pakua Shipl, Unamen Shipu, Nutashkuan, Ekuanitshit, Uashat mak Mani-Utenam, and Matimekush-Lac John.

- Subsequently, during the Environmental Assessment process, the Naskapi Nation of Kawawachikamach was identified by the Joint Review Panel, and has been included in Nalcor's consultation efforts.

- According to their September 27, 2010 aboriginal Consultation Assessment Report, Nalcor has undertaken a variety of efforts to develop a clear understanding of Aboriginal interests, values, concerns, contemporary and historic activities, Aboriginal traditional knowledge and important issues facing each Aboriginal group. These efforts included:
  - direct engagement whenever possible;
  - offers of capacity funding to assist the communities in their participation;
  - written requests for information;
  - review of the groups participation in the environmental assessment (EA) process of the Project;
literature reviews, review of available land claim documentation;
• groups’ participation in similar project Environmental Assessments, and
• consideration of public statements made by community leadership regarding the Lower Churchill Project;
• In addition, Nalcor has responded to Information Requests with Aboriginal content.

This approach to consultation has resulted in differences in the level of engagement with different groups. (See Attachment A for Nalcor’s specific consultation efforts per group as outlined in their Aboriginal Consultation Assessment Report September 2010). As a result, subsequent steps have been taken by Nalcor to ensure meaningful and adequate consultation have been tailored to the particular circumstances of each group.

An English, French and Aboriginal language Plan Language Summary of the Environmental Impact Statement (EIS) has been prepared by Nalcor. Hard copies of the English, and appropriate aboriginal versions of the Plan Language Summary and one digital copy the appropriate aboriginal language version was sent via courier, along with a request to come into the two communities of the Innu Nation, the Nuantsiavut Government, NunatuKavut and Kawawachikamach. Hard copies of the French, and appropriate aboriginal versions of the Plan Language Summary and one digital copy the appropriate aboriginal language version was sent via courier, along with a request to come into each to provide an oral presentation to the communities of Pekua Shipi, Unamen Shipu, Nutashkuan, Ekuanitshit, Uashat mak Mani-Utenam, and Matimekush-Lan John.

Any update to the status of the plain language summary presentations for each group, are included in Attachment A.

The Quebec Innu, have publicly expressed and demonstrated their concerns with a number of aspects of the Project, including effects it may have on their lands, transportation routes, and wildlife. They have also expressed concerns that they were not included in consultations for the New Dawn Agreement. For more information on the group please see the note located at Tab xx.

The NunatuKavut, through correspondence with Nalcor and both the federal and provincial governments and voiced their concern with the level of consultation they have been involved with. As well, they have stated they are dissatisfied with the Project information provided by Nalcor. For more information on the NunatuKavut please see the note at Tab xx.

Action Being Taken:

• On September 27, 2010, Nalcor Energy submitted its report on Aboriginal Consultation entitled Supplemental Information to IR JRP.151 (Consultation Assessment Report). The Panel advises interested parties that it will accept comments on Nalcor’s report for a twenty-one (21) day period, commencing September 30 and ending October 21, 2010.

• The Joint Review Panel has expressed that they are particularly interested in hearing from Aboriginal groups on the Consultation Assessment Report. Comments may be provided either in writing or verbally by submitting quality recordings. All comments will be made public through the federal online registry. Forward written or recorded
comments in the official language of your choice by mail, e-mail or fax to the attention of either of the Panel Co-Managers.

Sources:


Prepared by: Angie Philpott/Susan Brewer
Approved by:

Ministerial Approval:

19/10/2010
Innu Nation

- Nalcor has engaged Innu Nation in consultation respecting the Project since 2000. Innu Nation represents the Innu of Labrador. Through a series of process agreements concluded between February 2000 and August 2008, Nalcor has provided funding to participate in community consultation, IBA negotiations and an environmental Task Force.

- Since the conclusion of the process agreements, consultation has been conducted pursuant to a series of individualized understandings and agreements. The remaining work of the Task Force was completed under a short term MOU. Separate funding was continued for IBA negotiations and the community consultation process.

- In September 2008, Innu Nation and the Province signed the Tshash Petapen (New Dawn Agreement which established the framework for conclusion of the IBA, Churchill Falls Hydroelectric Development Redress Agreement and a bilateral land claims agreement-in-principle.

- In February 2010, negotiations respecting accommodation for the potential adverse impacts of the Project were concluded and Innu Nation and Nalcor initialed the Lower Churchill Impact and Benefits Agreement (IBA) a Land Claim Agreement in Principle (ALIP) and the financial agreement regarding upper Churchill River hydroelectric development. Since then, ongoing consultations with the Innu Nation are being conducted pursuant to an MOU which fully describes the obligations of Nalcor and Innu Nation until ratification of the IBA.

- Nalcor has prepared and provided Plain Language Summaries of the Project description and the EIS, both of which were translated into Innu aimun. Nalcor’s community consultation process is ongoing. As indicated above, Nalcor will undertake a comprehensive monitoring and follow-up program when the Project is operational, using an adaptive management process that provides for the participation of Innu Nation.

NunatuKavut (formerly Labrador Metis Nation)

- Nalcor’s consultation efforts with NunatuKavut regarding the Project have been ongoing since April 2007. NunatuKavut represents individuals who self-identify as Labrador Metis. In December 2009, Nalcor and NunatuKavut entered into an agreement to conduct consultations with NunatuKavut members with respect to the Project. The agreement provided capacity funding to facilitate communication between NunatuKavut and Nalcor, to assist in the dissemination of information, and to provide feedback to Nalcor regarding NunatuKavut’s concerns about the Project.

- NunatuKavut hired a full-time Project Coordinator, who was responsible for the agreement’s consultation and coordination, and acted as the primary point of contact between the two groups. NunatuKavut submitted a preliminary report to Nalcor, outlining its membership’s issues and concerns with the proposed Project. The
agreement expired March 31, 2010. Parties are now engaged in negotiating the terms of a renewal consultation agreement.

- Nalcor undertook consultation in compliance with the EIS Guidelines and at a level commensurate with Nalcor's understanding of NunatuKavut's interest in the Project area. Nalcor will undertake a comprehensive monitoring and follow-up program, employing an adaptive management process while ensuring the distribution of information regarding these processes. Nalcor has incorporated all the TEK provided to it into the EIS. Nalcor is prepared to accept additional information that may be provided throughout the EA process. Nalcor will continue to engage with and offer opportunities for involvement during the development of the Project.

Nunatsiavut Government
- Nalcor has engaged Nunatsiavut Government regarding the Project since March 2008 and consultation has been ongoing since that time. Information and documentation supplied by the Labrador Inuit in the course of land claims negotiations and as evidenced in the Labrador Inuit Land Claims Agreement does not illustrate any record of historical use and occupancy by the Labrador Inuit of the land and resources in the proposed Project Area.

- Nalcor has collected over 30 years of data which has concluded that there will be no measurable Project-related impacts upon either lands or resources within the Labrador-Inuit Settlement Area or upon Inuit rights under the treaty. As a result, Nalcor's view is that the project requirement for consultation can be fulfilled by an ongoing process of notice, information exchange and bilateral discussions without the necessity of a formal consultation agreement between Nalcor and the Nunatsiavut Government.

- Nalcor undertook consultation in compliance with the EIS Guidelines and at a level commensurate with Nalcor's understanding of Nunatsiavut's interest in the Project area. Nalcor will undertake a comprehensive monitoring and follow-up program, employing an adaptive management process while ensuring the distribution of information regarding these processes. Nalcor has incorporated all the TEK provided to it into the EIS. Nalcor is prepared to accept additional information that may be provided throughout the EA process. Nalcor will continue to engage with and offer opportunities for involvement during the development of the Project.

Pakua Shipi
- Nalcor's consultation efforts with the Innu of Pakua Shipi regarding the Lower Churchill Project have been ongoing since May 2008.

- A Community Engagement Agreement was developed in collaboration with Pakua Shipi and the Project Team met with the community leaders on April 26, 2010 to sign the Agreement. On June 15, 2010 an executive briefing including a description of the Community Engagement Agreement and a Project description was presented to the Band Council members. A community presentation of the Plain Language Summary...
was also made on June 15, 2010 to 20 members of Pakua Shipi. The interview process began on June 29, 2010 and continued from July 8 to 13, 2010, with the Community Coordinator working in St John's from July 21 to 29, 2010.

- Interviews with 22 community members were performed during the summer 2010. These interviews allowed the collection of current land and resource use by the Innu of Pakua Shipi, as well as their concerns as to the potential effects of the Project on their livelihoods.

- Land and resource use by the Innu of Pakua Shipi has been identified in some areas that are in proximity to the Project.

- Many questions and concerns have been raised by the community. Nalcor will continue to assess the issues and deliver the responses as well as appropriate mitigation measures to the community through a presentation. This presentation will be conducted in collaboration with the Community Coordinator and Project Coordinators from Pakua Shipi and Nalcor.

Unamen Shipu

- Nalcor's consultation efforts with the Innu of Unamen Shipu regarding the Project have been ongoing since May 2008. A Community Engagement Agreement was discussed with Unamen Shipu and the Band Council's edits to the Agreement were forwarded to the Project Team.

- The Project Team requested permission to deliver a Plain Language Summary to the community on June 4, 2010. On May 19, 2010, Nalcor forwarded 20 paper copies of the French-language Plain Language Summary and one electronic copy. Nalcor also reiterated its request to deliver an oral presentation to the community. On June 4, 2010, 20 copies of the Plain Language Summary in Innu-aimun were sent to the community. Permission to present the Plain Language Summary was requested again in both June and July 2010.

- Chief Bacon was informed on June 4, 2010 that the 2010 Summer Consultation Program was being initiated and the Project Team asked for permission to do so in Unamen Shipu.

Nutashkuan

- Nalcor's consultation efforts with the Innu of Nutashkuan regarding the Project have been ongoing since May 2008. A meeting with the Band Council was suggested for May 6, 2010 in order to discuss the Community Engagement Agreement, however, after a number of attempts, it was not possible to meet with the Council.

- The Project Team requested permission to deliver a Plain Language Summary to the community on June 8, 2010. On May 19, 2010, Nalcor forwarded 20 copies of the French-language Plain Language Summary and one electronic copy and reiterated the request to deliver an oral presentation to the community. The community once again responded that the presentation would need to be discussed with the Band Council following elections in July. On June 4, 2010, 20 copies of the Plain Language
Summary in Innul-aimun were sent to the community. Permission to present the Plain Language Summary was requested again in both June and July 2010.

- Chief Bellefleur was informed on June 4, 2010 that the 2010 Summer Consultation Program was being initiated and the Project Team asked for permission to do so in Natushikuan.

**Ekuanitshit**
- Nalcor's consultation efforts with the Innu of Ekuanitshit regarding the Project have been ongoing since May 2008.
- The Project Team requested permission to deliver a Plain Language Summary to the community on June 3, 2010. On May 19, 2010, 20 paper copies of the French-Language Plain Language Summary and one electronic copy were forwarded to the Chief. Nalcor also reiterated their request to deliver an oral presentation to the community. On June 4, 2010, 20 copies of the Plain Language Summary in Innul-aimun were sent to the community. Permission to present the Plain Language Summary was requested again in both June and July 2010.
- Chief Pietacho was informed on June 4, 2010 that the 2010 Summer Consultation Program was being initiated and the Project Team asked for permission to do so in Ekuanitshit.
- A Plain Language Summary was provided to the community by Nalcor on September 13, 2010.

**Uashat mak Mani-Utenam**
- Nalcor’s consultation efforts with the Innu of Uashat mak Mani-Utenam regarding the Project have been ongoing since May 2008.
- The Project Team requested permission to deliver a Plain Language Summary to the community on June 2, 2010 and discussed the details of the presentation with the Band Council Staff on May 13, 2010. On May 19, 2010, 20 paper copies of the French-Language Plain Language Summary and one electronic copy were forwarded to the community. Nalcor also reiterated their request to deliver an oral presentation to the community. On June 4, 2010, 20 copies of the Plain Language Summary in Innul-aimun were sent to the community and the request to make a presentation was repeated on June 9, 2010. Permission to present the Plain Language Summary was requested again in both June and July 2010.
- Chief Gregoire was informed on June 4, 2010 that the 2010 Summer Consultation Program was being initiated and the Project Team asked for permission to do so in Uashat mak Mani-Utenam. Uashat mak Mani-Utenam stated that consultation with the community could not occur without permission from the Band Council, which had not been given. They also explained that the Environmental Impact Statement did not include required information on Uashat mak Mani-Utenam occupation and land use. These were responded to in a letter on July 14, 2010, which outlined the Project Team’s attempts to engage the community.
Matimekush-Lac John
- Nalcor’s consultation efforts with the Innu of Matimekush-Lac John regarding the Project have been ongoing since May 2008.

- The Project Team requested permission to deliver a Plain Language Summary to the community on June 7, 2010. The Band Council announced that this request had to be delayed to after July 7, 2010, as a community election was to be held at that time. On May 19, 2010, Nalcor provided the community with 20 paper copies of the French-language Plain Language Summary and one electronic copy. Nalcor also reiterated their request to deliver an oral presentation to the community. On June 4, 2010, 20 copies of the Plain Language Summary in Innu-aimun were sent to the community. Permission to present the Plain Language Summary was requested again in both June and July 2010.

- Chief McKenzie was informed on June 4, 2010 that the 2010 Summer Consultation Program was being initiated and the Project Team asked for permission to do so in Matimekush-Lac John.

Kawawachikamach
- Nalcor’s consultation efforts with Naskapi Nation of Kawawachikamach regarding the Project have been ongoing since November 2008.

- As a result, a Project Information Package was provided to Chief Einish on November 19, 2008, and included copies of the Lower Churchill Project EA Registration document, a reservoir map book, and proposed site layouts at Gull Island and Muskrat Falls, as well as copies of the Lower Churchill “Your Questions Answered” information brochure.

- Communications throughout the remainder of 2008, throughout 2009 and to date facilitated further discussions on the Project. Recent consultation with the Naskapi Nation of Kawawachikamach includes: Plain Language Summary Community Presentation held on June 8, 2010 in Kawawachikamach. Prior to the meeting, 20 copies of the Plain Language Summary in both written form and on CD were sent and a Naskapi/English translation will be provided.
## LCP 2002 – Issues, Quotes and Responses

<table>
<thead>
<tr>
<th>Topic/Issue</th>
<th>2002 Quotes</th>
<th>Response</th>
</tr>
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</table>
| **Benefits** | 1. HOA, Nov. 28: “Can the Premier please confirm that, in fact, most of the design and engineering work on the Lower Churchill will be done in Quebec?” (Grimes Deal)  
2. HOA, Dec. 4, 2002: “Would the Premier confirm that he told that private meeting that the prefabrication of the turbines and powerhouse components would be done by Quebec companies, in Quebec?” “Why are we entering into an agreement to create numerous jobs and opportunities for Quebeckers and only fifty long-term jobs for Newfoundlanders and Labradorians?”  
3. HOA, Dec. 4, 2002: “…at the end of construction of this multi-billion development of our resource, Newfoundlanders and Labradorians will only get fifty long-term jobs while Quebec will use more of our cheap power to create thousands of new jobs for Quebeckers?”  
4. HOA, Dec. 5, 2002: “…the design and the engineering, and prefabrication of the generators, the transmission towers and transmission cable for the Gull Island project would be done in Quebec, by Quebec companies, and using Quebec workers. If all the work is occurring in Quebec, would the Premier please tell the people what is left for companies and workers from this Province other than the onsite work?” (Grimes Deal) |  |
| **Cost Overruns** | 1. HOA, Nov. 19, 2002: Does NL lose ownership if there is a cost overrun that it cannot cover?  
2. HOA, May 8, 2006: “…if there had been an |  |
<table>
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<tr>
<th>Party? Or should they be shared equally among partners?</th>
<th>overrun on the project, the last Lower Churchill project that was proposed by the Grimes government, in fact, we could have lost the project; because, if there had been an overrun, we would not have been in a position to be able to finance it.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity Rates</td>
<td>1. HOA, Nov. 20, 2002: What about all Newfoundlanders and Labradorians who consume electrical energy in their homes? Why is electricity more than twice as expensive in Goose Bay and Corner Brook than it is in Montreal?</td>
</tr>
<tr>
<td>Should the development of the Lower Churchill necessarily lower the residential electricity rates throughout the province? Commercial/Industrial?</td>
<td>2. HOA, Nov. 21, 2002: Rates in NL towns and cities such as Corner Brook will pay 40% more for electricity than in Quebec cities such as Montreal.</td>
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<tr>
<td>3. News Release – Nov. 28, 2002: “...cheap power from our resource should be used to reduce the price we pay for residential consumption,” Williams said</td>
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<tr>
<td>Financing</td>
<td>1. HOA, Nov. 19, 2002:</td>
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<tr>
<td>Should the province “go it alone” to develop the Lower Churchill?</td>
<td>• “The province of Quebec – our great benefactors, the Province of Quebec – are generously providing financing for the project...” (Grimes Deal)</td>
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<td></td>
<td>• “Why can’t the Government of Newfoundland and Labrador do this project ourselves, with a guarantee from the Government of Canada?”</td>
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<tr>
<td>2. HOA, Nov. 21, 2002: Would the Premier give the people of Newfoundland and Labrador an ironclad guarantee that there is nothing in this documentation that could affect our credit rating or our ability to borrow when our financing practices are already considered to be unsustainable?</td>
<td></td>
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</table>
| 3. HOA, Nov. 26, 2002: “Will the Premier please..."
4. HOA, Nov. 28: "Speaker, could the Premier please table the most recent request he has made to the federal government, and/or federal Minister Gerry Byrne, to help finance the Lower Churchill project for the benefit of the people of Newfoundland and Labrador." "Why can't the Premier of our Province convince the Prime Minister that Newfoundlanders and Labradors are also Canadians, and that we deserve federal assistance to develop our power project just as much as Manitoba and Ontario? And why is it that the Premiers of Ontario and Manitoba can progress their energy plan with Ottawa when our Premier simply cannot?" (Grimes Deal)

| Governing Law (Dispute Resolution) | 1. HOA, Nov. 19, 2002: Would NL or Quebec courts settle a financial dispute over the project?  
Should a dispute resolution mechanism fall to the partner that owns the resource? | 2. HOA, Nov. 21, 2002: the courts of Quebec will decide major financial matters under this contract; |
| GHG Credits | 1. News Release – Nov. 7, 2002: (Ottenheimer) it would be reckless and irresponsible to sign a Lower Churchill deal with Quebec without knowing whether the Kyoto Protocol will credit provinces like ours that produce clean hydro power or simply credit provinces like Quebec, in this case, that end up using the power.  
Should NL receive all GHG credits as the owner of the resource? Should the purchasing partner receive some/all credits? | |
| Industrial Development | 1. News Release – Nov. 22, 2002: "...before pursuing an agreement with Québec, we must first seriously examine the option of moving forward with this project on our own so that we confirm that the financing arrangements for this project will saddle our Province of Newfoundland and Labrador with 100 per cent of the cost overruns?" (Grimes Deal)  
Should a portion of power from the Lower Churchill development be reserved to attract |
<table>
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<tr>
<th>Labrador</th>
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<tr>
<td>Should those adjacent to the resource (i.e. customers in Labrador) have access to Lower Churchill power before Island customers?</td>
</tr>
<tr>
<td>1. HOA, Nov. 20, 2002: “Will recall power be specifically targeted for those current needs of Labrador; the 500 megawatts requested for the Goose Bay area as requested by the mayor; the power for Southern Labrador as requested by the MHA, and also for domestic and commercial use in the rest of Labrador as requested by the Member of Parliament for Labrador, Lawrence O’Brien?” (Grimes Deal)</td>
</tr>
<tr>
<td>2. HOA, Nov. 20, 2002: “Mr. Speaker, the Premier has quit on the Province of Newfoundland and Labrador. He is now specifically quitting on Labrador itself and says there has not, and there will not be, any use for that power (inaudible).”</td>
</tr>
<tr>
<td>3. HOA, Nov. 20, 2002: “The truth is we won’t be able to attract any new business. The fears of Mr. O’Brien, Mr. Hickey and the Member for Cartwright-L’Anse au Clair are well-founded.”</td>
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<tr>
<th>Need for debate</th>
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<tr>
<td>Should the arrangements for development of the Lower Churchill be open for public debate prior to binding arrangements being reached with customers and lenders?</td>
</tr>
<tr>
<td>1. HOA, Nov 18, 2002, “Everything is being done in secret. Make all the information available, have a full debate. Before the deal is signed.”</td>
</tr>
<tr>
<td>2. HOA, Nov. 26, 2002: “…I challenge you today, to present this deal and all the detail before this House, to this House, to the people in this House of Assembly, before a deal is</td>
</tr>
</tbody>
</table>

- The plan for the Lower Churchill project has been well known. The EIS contains a full project description. Plans have been made public in filings with the Regie de l’Energie in Quebec. We have informed the public about the P3 application for a Maritime link. and...
- The arrangements being made public now are the Decision documents of Nalcor Energy and...
signed, so that myself, you and the Leader of the New Democratic Party can have a full and open televised debate on all the issues, clause by clause, section by section, and let’s see if you really have the answers.”

3. **HOA, April 11, 2006:** “That was very secret, no disclosure, no information whatsoever. The former Premier - most of you were in the Cabinet at the time - the big celebration, the big announcement was all done. All the media was all done. All the public relations were all done. We were going to get it rammed down our throats. We stopped that, and fortunately we saved the Lower Churchill from being given away after the Upper Churchill had been given away by a Liberal government.” *(Grimes Deal)*

### Open Access

**Open Access**

<table>
<thead>
<tr>
<th>Should market access be secured and purchase agreements in place prior to any agreement on Lower Churchill development?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> <strong>HOA, Nov. 19, 2002:</strong> Premier Williams quoting Liberal Minister: “the people of the Province need to know one thing, that from the first day we sell one megawatt hour from that project we will be getting the full market value of the power as though we were selling it in any other market available in North America.”</td>
</tr>
<tr>
<td><strong>2.</strong> <strong>PC Opposition News Release – Aug. 1, 2002:</strong> “…since Canada has become part of the North American Free Trade Zone, Québec is obligated to give Newfoundland and Labrador wheeling rights to export power across its grid to markets elsewhere. Therefore, the government has to explain why this project is not being developed solely as a Newfoundland and Labrador project so that the power can be sold at market value for the best prices on the North American market.” <em>(Grimes Deal)</em></td>
</tr>
<tr>
<td><strong>3.</strong> <strong>News Story – Sep. 13, 2002:</strong> “Why can't we sell the electricity directly to the United States”</td>
</tr>
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The Term Sheet negotiated with Emera. These represent a further evolution in our planning.

- We are making these documents public as a basis for public discussion and debate in the House of Assembly.
- This process is markedly different than the...
<table>
<thead>
<tr>
<th>Ownership / Project Management</th>
<th>Ownership / Project Management</th>
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</table>
| Should the province solely own and manage all aspects of the project? | 1. HOA, Nov. 19, 2002: Will the province manage 100% of the project?  
2. HOA, Nov. 21, 2002: there is no guarantee of 100 per cent ownership of the project by Newfoundland and Labrador (Grimes Deal)  
3. HOA, May 8, 2006: “By taking the lead we are in full control of the project, unlike the circumstance with the last government; that project, basically, was going to be controlled by Quebec. It would have been marketed, it would have been financed, the transmission would have been done by Quebec. The control of the project, the project management, would have been done by Quebec.” |

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<th>Pre-Release Costs</th>
<th>Pre-Release Costs</th>
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<tr>
<td>Should the province disclose its expenditures on negotiations and other related aspects leading up to the Lower Churchill deal?</td>
<td>1. HOA, Dec. 4, 2002: “Will he confirm that Lower Churchill negotiations, dating back to the Tobin Administration, have cost the people of the Province or Hydro approximately $50 million; $35 million of which was spent under the Tobin Administration, and approximately $15 million since this Premier became Premier? Can he confirm that is how much this Administration has spent on Lower Churchill negotiations and that approximately $3 million of that has been spent on needless public relations campaigns?”</td>
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<th>Third Party Role in Project (e.g. Quebec in 2002 deal)</th>
<th>Third Party Role in Project (e.g. Quebec in 2002 deal)</th>
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| Should one party have a dominant and controlling interest over another party in a P3 arrangement? | 1. HOA, Dec. 5, 2002: “…I have never ever seen a contract in which one party - in this case Quebec - acts as the banker, acts as the customer, acts as the supplier, acts as the manager, is potentially an owner, and has control of capital costs, borrowing costs, and the price of the product. Mr. Speaker, could the Premier please show the people any other project in Canada in which one party to that
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<th><strong>Recall</strong></th>
<th><strong>Redress for Upper Churchill</strong></th>
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<td>Should any agreement on Lower Churchill development include agreements on recall power from the Upper Churchill?</td>
<td>Should any agreement on the development of Lower Churchill include provisions for Upper Churchill redress?</td>
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<td>1.</td>
<td>HOA, Nov. 20, 2002: “Would the Premier please tell the people of Newfoundland and Labrador - the mayors, the MHAs and the MP for Labrador - the details of such recall power? What notice do we have to give for that recall power and what limitations, if any, are on the amounts that we can recall over the entire life of the contract?”</td>
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<td>2.</td>
<td>HOA, Nov. 21, 2002: we can only recall our own power at a price greater than we sold it to Quebec in the first place (Grimes Deal)</td>
</tr>
<tr>
<td>3.</td>
<td>HOA, Nov. 26, 2002: “Would the Premier confirm, for the people of Labrador, that the recall notice will be short enough and there will be sufficient guarantees of power available immediately to satisfy the demands of leaders like Lawrence O’Brien and the Mayor of Happy Valley-Goose Bay?</td>
</tr>
<tr>
<td>1.</td>
<td>HOA, Nov. 18, 2002: Any deal on the Lower Churchill should redress Upper Churchill [LC is NL’s only lever for redress.] (Grimes Deal)</td>
</tr>
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<td>2.</td>
<td>HOA, Nov. 18, 2002: “By 2010 the Government of Quebec is forecasting a shortage of power that will leave them unable to meet their commercial obligations. Quebec’s shortage of power would put our negotiating team in the driver’s seat during negotiations on the Lower Churchill. With such obvious negotiating power, could the Premier tell the people why he did not use the Lower Churchill as a bargaining lever to address the inequities of the Upper Churchill contract? Would the Premier explain why he quit on the objective of every single Government of Newfoundland and Labrador since the deal was signed over thirty years ago?”</td>
</tr>
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</table>

contract has such a controlling and dominant interest?” |
3. HOA, Nov. 21, 2002: "there will be no form of redress for the Upper Churchill (Grimes Deal) years ago?"
Information Note  
Natural Resources

Title: Long-Term Generation Decision for Newfoundland and Labrador

Issue: To provide the current status of long-term generation issues for Newfoundland and Labrador and a summary of the long-term generation decision.

Background and Current Status:

- Newfoundland and Labrador Hydro’s (NLH) System Planning Department is responsible for generation expansion planning for the Island Interconnected System. This includes planning for the power and energy supplied by NLH, power supplied by NLH’s customer-owned generation resources and NLH’s bulk and retail electricity supply, including power purchases.

- One output of NLH’s system planning team is an annual review of generation planning issues and options which provides an overview of the Island Interconnected System (the “system”) generation capability, the proposed timing of the requirements for additional generation supply, the resources available to meet future requirements and identifies any issues that need to be considered to ensure that decisions can be made in an orderly, cost-effective and timely manner. The most recent update of this report is entitled Generation Planning Issues (2010 July Update) and is filed with the PUB.

- The Systems Planning function also addresses directives contained in the province’s 2007 Energy Plan which outlines a specific objective of addressing environmental concerns related to Holyrood by replacing energy provided by Holyrood with electricity from the Lower Churchill development through a HVdc transmission link from Labrador to the Island. The Energy Plan also indicates that if the Lower Churchill project does not proceed, scrubbers and precipitators are to be installed at Holyrood. These two unique scenarios (HVdc Link and Isolated Island) require that Nalcor/NLH maintain two distinct plans for generation expansion.

- Under both scenarios, Nalcor’s planning load forecast for 2010 indicates that generation capacity deficits begin in 2015, although no actual energy deficits occur until post-2019.

- In order to ensure that the Island has sufficient capacity and energy, a decision on what alternative with which to proceed is required by the end of 2010 to provide time for capital project approval and construction.

- Nalcor identifies five key near-term generation expansion options to meet potential future capacity and energy deficits on the Island:
  - Isolated Island – This scenario includes a combined cycle generating facility to replace Holyrood (from 125 to 170 MW; project schedule at least 36 months from project release to in-service date), as well as a combination of small hydro (Island Pond – 36 MW and 42 months from project release to in-service date; Portland Creek – 23 MW and 32 months from project release to in-service date; and Round Pond – 18 MW and 33 months from project release to in-service date), and wind generation (potentially a series of interconnect 1.8 to 3.0 MW turbines and 30 months from project release to in-service date).
  - Lower Churchill Development (Muskat Falls First) – Development of Muskrat Falls first with associated AC transmission in Labrador and an HVdc Island link. For the purposes of evaluating the development as a means to meet domestic
needs, Nalcor has assumed that unused power is lost in the form of spilled water.

- **Lower Churchill Development (Gull Island First)** – Development of Gull Island first with associated AC transmission in Labrador and an HVdc transmission link from Labrador to the Island. For the purposes of evaluating the development as a means to meet domestic needs, Nalcor has assumed that unused power is lost in the form of spilled water.

- **Imports via Hydro Quebec** – Additional power for the Island is met by the completion of an HVdc link transmission link from Labrador to the Island with no new generating capacity in Labrador. Energy needs are met via Hydro Quebec.

- **Imports from New England Independent System Operator (NEISO)** – Additional power for the Island is met by the completion of an HVdc transmission link from Nova Scotia to the Island with no new generating capacity on the Island. Energy needs are met through importation of power via Nova Scotia.

- Selection of the preferred option is based on a combination of three base criteria and other considerations:
  - **Reliability** – Each option must have the required infrastructure built in to meet the minimum standards of reliability for operation of the Provincial electricity grid. System design is adjusted until these requirements are met.
  - **Cost** – Lowest cost option is considered most favourable and to simulate worst-case economic conditions, excess power is assumed to be lost by spilling water.
  - **Security of Supply** – Accounts for the risk of depending on power purchases from a third party for the Province’s basic generation needs. Most favourable options are those which result in generation and transmission for domestic needs being controlled solely within provincial boundaries and subject to NL laws and regulations.
  - **Other Considerations** – Considerations not included in the formal criteria but which have influence, particularly if one choice is not clearly preferred: overall benefits to the Province and Provincial Treasury, level of GHG reduction and associated potential monetary value, and long-term strategic value to the Province in the context of Energy Plan goals and objectives.

**Decision**
- Based on the identified criteria and a comprehensive analysis of all alternatives, Nalcor has concluded that the domestic needs of the Province are best met by developing Muskrat Falls generating facility with associated AC transmission in Labrador and an HVdc transmission link from Labrador to the Island.

- The option also entails the retirement of the Holyrood Thermal Generating Station, resulting in the Province’s electrical generation system being >98% GHG emissions free, exceeding any potential national or international GHG reduction targets.

- The option provides a solution in which generation and transmission for internal provincial needs controlled solely within provincial boundaries and subject to NL laws and regulations.

- This option provides the necessary system reliability requirements and is the most economic solution for ratepayers.

- This option provides long term price stability and certainty.

- *(A note on a decision on how best to monetize the excess power from this option is available at 1c)*
Action Being Taken:
- Note provided for information purposes only.

Prepared / Approved by: Rob Bates / Rob McGrath, DNR
Approved by:

Ministerial Approval:

20/10/2010
Information Note
Natural Resources

Title: Aboriginal Involvement – New Dawn Agreement

Issue: Ratification by the Innu of the New Dawn Agreements.

Background and Current Status:
- On September 26, 2008, the Province, Energy Corporation of Newfoundland and Labrador (now Nalcor Energy), Innu Nation and the two First Nations signed the Tshash Petapen (New Dawn) Agreement ("Tshash Petapen") that resolved certain outstanding issues associated with land claims, the Lower Churchill Innu Impacts and Benefits Agreement (IBA) and compensation in respect of the Upper Churchill development (Separate notes on the Innu Land Claim, the IBA, and the Upper Churchill Redress are available at Tabs 5c, 5d, and 5e respectively).
- Pursuant to Tshash Petapen, the parties agreed to use every reasonable effort to conclude three agreements and to proceed to concurrent ratification and execution of these agreements. It is a condition of Tshash Petapen that all three agreements be ratified simultaneously and that a failure to ratify and execute any one of these agreements constitutes a rejection of all. Ratification of the agreements will constitute consent on the part of Innu of Labrador to the Lower Churchill Project.
- On February 16, 2010, the IBA, the Churchill Falls Hydro-electric Development Redress Agreement and the Land Claims Agreement-in-Principle were initialed by the Province, Nalcor Energy ("Nalcor"), Innu Nation and the First Nations. The IBA and the Churchill Falls Hydro-electric Development Redress Agreement will become binding once ratified by the Labrador Innu and signed by the Province, Nalcor Energy, Innu Nation and the two First Nations.
- The Parties have agreed to submit the agreements to the process for ratification set out in Chapter 6 of the IBA which provides for a community referendum following a period of public consultation. The three agreements will be approved if:
  - a majority of eligible voters in Sheshatshiu and Natuashish participate in the referendum, and
  - at least 60% of the votes cast in each community support execution of the Agreements.
- If the referendum fails because less than a majority of eligible voters participate in the vote, Nalcor and Innu Nation will meet to determine an appropriate course of action which may include the holding of a second ratification vote.
- Nalcor and Innu Nation have agreed upon a ratification budget in the amount of $654,000 and an associated workplan. It is Nalcor's understanding that Innu Nation has applied to the federal government for approximately one-third of this amount ($218,000) which, if successful, would lower Nalcor's contribution to $436,000. The status of this application has not been determined.
- Nalcor's agreement to the ratification budget and workplan proposed by Innu Nation was premised on the understanding that the ratification vote would take place
sometime in the fall of 2010 (likely in November). However, more recent intelligence suggests that the vote may be deferred to sometime in 2011.

- There are several factors militating against the holding of a ratification vote prior to 2011:
  - S. 29(1)(a)
  - S. 29(1)(a), S. 34(1)(a)(i), S. 34(1)(b)

Nalcor's Assessment

- S. 29(1)(a)
Action Being Taken:

Prepared by: Nalcor Energy (consulted with LAA, NR)
Approved by: Robert Thompson

Ministerial Approval:

30/10/2010
Information Note
Natural Resources

Title: Aboriginal Involvement – Consultation


Background and Current Status:

- Nalcor Energy ("Nalcor") has been directed by sections 2.2 and 4.8 of the Environmental Impact Statement (EIS) Guidelines (the "Guidelines") to consult with Aboriginal groups and communities (identified in the Guidelines), in order to:
  - familiarize each group with the Lower Churchill Hydroelectric Generation Project (the "Generation Project") and its potential environmental effects;
  - identify any issues of concern respecting the potential environmental effects of the Project; and
  - identify actions to address each issue identified, as appropriate.

- The Guidelines require that Nalcor, as Proponent, demonstrate an understanding of "the interests, values, concerns, contemporary and historic activities, Aboriginal traditional knowledge and important issues facing Aboriginal groups, and indicate how these will be considered in planning and carrying out the Project".

- Nine aboriginal groups and communities are identified in the Guidelines: Innu Nation, Labrador Metis Nation (now NunatuKavut Community Council or NCC), the Nunatsiavut Government, and in Québec, the Innu communities of Uashat mak Mani-Utenam (Sept Îles), Ekuanitshit (Mingan), Nutashquan (Natashquan), Unamen Shipu (La Romaine), Pakua Shipi (St. Augustin) and Matimekush-Lac John (Schefferville). In addition, the Joint Review Panel conducting the environmental assessment of the Project has directed that Nalcor consult with the Naskapi Nation of Kawawachikamach.

- Consultation with Innu Nation has been ongoing since 2000. Consultation efforts with the other groups and communities identified in the Guidelines began as follows: NCC – April, 2007; Nunatsiavut Government – March, 2008; Québec Innu communities – May, 2008; Naskapi Nation of Kawawachikamach – November, 2008. A complete record of Nalcor's consultative activities has been provided to the Joint Review Panel in Nalcor's responses to various information requests.

- Nalcor believes it has applied a principled and progressive approach to consultation which is designed to achieve compliance with the Guidelines while reflecting the particular circumstances and interests of each group or community. Accordingly, the nature and intensity of consultation has been commensurate with each group's interest in the Project, taking into account such factors as the existence of an asserted or settled land claim, proximity to the Project Area, evidence of a group's land and resource use and any prior history of consultation.

- In accordance with this principled approach, following the release of the Guidelines, all groups have been provided with a comprehensive range of Project related information including:
  - the Generation Project's Environmental Registration document;
  - fact sheets and map books,
  - the EIS Executive Summary and associated documentation; and
  - the Plain Language Summary.
• Written materials have been provided in English and where appropriate, in either French or an aboriginal language. In addition, Nalcor has met at least once with each community to present Project-related information and to participate in question and answer sessions and has responded to all community requests for subsequent meetings.

• In addition to public information sessions, Nalcor has also conducted topic-specific workshops and provided technical briefings to representatives of interested aboriginal groups.

• Nalcor has also undertaken more intensive consultation activities with certain groups. Although not legally required, in recognition of the asserted interests and outstanding land claims of certain groups in the area of the proposed Generation Project, in the spring of 2009 Nalcor offered to engage in more formalized consultative arrangements with the six Québec Innu communities and with the NCC. Nalcor offered each of these groups the opportunity to conclude a community consultation agreement supported by capacity funding. Formal community consultation agreements were intended to:
  o regularize the process of dissemination of Project-related information;
  o facilitate the collection of data related to aboriginal traditional knowledge and land and resource use; and
  o assist in the identification of community issues and concerns respecting the potential impacts of the Project.

• Nalcor succeeded in concluding such arrangements with the NCC and Pakua Shipi but despite its best efforts was unable to conclude similar agreements with any other group. (Separate notes on the NCC and the Québec Innu are available at Tab 5f and 5g respectively).

• The offer of formalized consultative arrangements was not extended to either the Nunatsiavut Government or the Naskapi Nation of Kawawachikamach. The Labrador Inuit have concluded a comprehensive land claims agreement with Canada and the Province and the area of the proposed Generation Project is outside treaty lands. However, the Nunatsiavut Government argues that the Labrador Inuit Settlement Area (LISA) is impacted by the Project, as LISA includes a portion of Lake Melville. While the Naskapi Nation of Kawawachikamach have asserted aboriginal rights and title to a portion of Labrador, including the lower Churchill River Valley, the Naskapi have never submitted a Land Use and Occupancy Study for Labrador, their claim has not been accepted for negotiation by either the federal or provincial governments, and Nalcor has not been provided with any specific evidence of land and resource use in the area of the proposed Generation Project. Nevertheless, Nalcor has engaged in a range of consultative activities with each of these two organizations, and has provided each group with opportunities to identify any issues of concern.

• The most intensive consultation has been conducted with Innu Nation which has asserted aboriginal rights and title in the area of the proposed Generation Project and whose land claim is currently under negotiation.

• Nalcor’s consultative efforts with Innu Nation which commenced in 2000 gained new impetus in 2006 with the registration of the Generation Project and since that time pursuant to a series of funding agreements (the Process Agreements), Nalcor and Innu Nation have participated in three separate but related consultation processes:
  o impact and benefits agreement (IBA) negotiations to address the adverse impacts of the Project upon Innu interests;
  o community consultations; and
participation in an environmental Task Force (completed in 2008).

- The IBA was initialled in February, 2010 and will become binding once ratified by the Innu and signed by Nalcor and Innu Nation. (A separate note on the Tshash Petapen (New Dawn) Agreement is available at Tab 5b)

- While Nalcor has not engaged in the negotiation of an IBA or similar accommodation agreement with any other Aboriginal group, Nalcor has indicated that it is prepared to consider mitigation/accommodation arrangements upon proof of adverse impacts.

- The results of Nalcor’s consultative efforts have been consolidated in the Consultation Assessment Report, entitled Supplemental Information to IR JRP.151, submitted to the Joint Review Panel on September 27, 2010. It is Nalcor’s view that this Report, together with the Environmental Impact Statement and previous responses to various information requests issued by the Joint Review Panel, provide the Panel with a demonstration of Nalcor’s understanding of the interests, values, concerns, contemporary and historic activities, Aboriginal traditional knowledge and important issues facing Aboriginal groups which is sufficient to permit the Generation Project to proceed to the public hearing phase.

- The NCC has recently expressed dissatisfaction with Nalcor’s engagement of the NCC in relation to the Generation Project Guidelines. On October 28, 2010 the NCC wrote to the Joint Review Panel (JRP) to question the degree to which the JRP considers itself able to devolve onto Nalcor any “information obligations” associated with the Crown’s duty to consult the NCC on the Generation Project.

Action Being Taken:

- The Joint Review Panel advises interested parties that it will accept comments on Nalcor’s Consultation Assessment Report for a twenty-one (21) day period, commencing September 30, which ended October 21, 2010. Comments received by the Panel and posted to the CEAA Registry were from Unamen Shipu, Uashat mak Mani-Utenam, Ekuanitshit, Innu Nation, NunatuKavut and the Nunatsiavut Government. A response to these comments from Nalcor has not yet been posted to the CEAA Registry.

- Nalcor anticipates that the Environmental Impact Statement Guidelines for the Labrador-Island Transmission Link Project will impose similar requirements of consultation and Nalcor intends to apply the same principled and structured approach to aboriginal consultation with respect to that project. An EIS Draft Guidelines and Scoping Document was provided to potentially affected Aboriginal groups on July 21, 2010. On November 5, 2010, ENVC and the CEAA indicated that comments must be received by ENVC and the CEAA by December 5, 2010.

- Nalcor has commenced consultation with various aboriginal groups by providing each with a copy of the Labrador-Island Transmission Link Project registration and is in the process of developing a consultation strategy for each aboriginal group.
Information Note
Natural Resources

Title: Quebec Innu and Naskapi and the Lower Churchill Project

Issue: Consultations with the Innu and Naskapi of Quebec on the Lower Churchill development.

Background and Current Status:
- Section 4.8 of the Environmental Impact Statement (EIS) Guidelines (the "Guidelines") for the Lower Churchill Hydroelectric Generation Project (the "Generation Project") requires Nalcor Energy ("Nalcor") as Proponent of the Generation Project to consult with a variety of aboriginal groups to demonstrate its understanding of the interests, values, concerns, contemporary and historic activities, Aboriginal traditional knowledge and important issues facing Aboriginal groups, and indicate how these will be considered in planning and carrying out the Project.
- The Guidelines specifically require the Proponent to consult with six Québec Innu communities: Pakua Shipi (St. Augustine), Unamen Shipu (La Romaine), Nutashkuan (Natashquan), Ekuanitshit (Mingan), Uashat mak Mani-Utenam (Sept-Îles) and Matimekush-Lac John (Schefferville). Subsequently, the Joint Review Panel conducting the environmental assessment of the Generation Project directed Nalcor to also engage in consultation with the Naskapi Nation of Kawawachikamach.
- Consistent with the requirements of section 4.8, Nalcor has been engaged in ongoing consultation efforts with the Québec Innu communities and the Naskapi Nation of Kawawachikamach in respect of the Generation Project since 2008.
- Nalcor has provided each community with comprehensive project information including the EIS Registration document, map book and fact sheets (May, 2008), the EIS Executive Summary and associated information (2009) and the Plain Language Summary (2010). Where appropriate, information has been provided in French and in either Innu-aimun or Naskapi.
- Nalcor has met at least once with each community to deliver a Project presentation and to participate in a question-answer session with community members. Nalcor has also recently delivered oral presentations on the Plain Language Summary in Pakua Shipi, Unamen Shipu, Ekuanitshit and Kawawachikamach and has indicated its willingness to conduct similar meetings in the remaining Québec aboriginal communities.
- In May 2009, in order to regularize its consultative initiatives, Nalcor Energy offered a formal consultation agreement supported by capacity funding to each Québec Innu community named in the Guidelines. A similar offer was not made to the Naskapi Nation of Kawawachikamach since, in Nalcor's view, there was no evidence to suggest any contemporary land and resource use in or near the area of the proposed Generation Project.
- While Nalcor has been engaged in intense negotiations with several Québec Innu communities with respect to the terms and conditions of formal consultative arrangements, it has only been able to conclude a formal agreement with Pakua Shipi in April, 2010.
- The implementation of this agreement, which expired in August, 2010, has been extremely successful and Nalcor and Pakua Shipi are now engaged in discussions...
respecting the conclusion of a similar agreement respecting issues scoping and land and resource use data collection in respect of the Transmission Project.

- Although Nalcor has not been able to conclude formal consultative arrangements with any Québec Innu community other than Pakua Shipi, it has evaluated the potential impacts of the Generation Project upon the Québec Innu based upon publicly available information.
- The results of this evaluation are contained in the Consultation Assessment Report submitted to the Joint Review Panel on September 27, 2010. It is Nalcor’s conclusion that, absent any specific evidence to the contrary provided by any of the Québec Innu communities, the impacts of the Project upon the Québec Innu interests in the area of the proposed Generation Project (depicted on the maps attached as Appendix “A” and “B”) are, at best, minimal and not significant.
- The six Québec Innu communities referenced in the Guidelines and the Naskapi Nation of Kawawachikamach have claimed aboriginal rights and title to lands and resources in Labrador, including to portions of the Churchill River valley. The Naskapi have a settled claim in Quebec (the 1978 Northeasteren Quebec Agreement). They have asserted a claim in Labrador but have never submitted a Land Use and Occupancy Study for their Labrador claim. And it has not been accepted by Canada or the Province. The six Innu communities were part of the now defunct Conseil des Atikamekw et des Montagnais (CAM), which asserted a claim to parts of Quebec and Labrador as part of a 1983 Land Use and Occupancy study. The claim was accepted by Canada and the Government of Quebec but has not been accepted for negotiation by the Province.

The Quebec-based claims have not advanced very far, with only Nutashquan achieving as much as an Agreement-in-Principle of a General Nature, but have since broken off negotiations with Canada and Quebec.

- In 2007, a group from Uashat mak Mani Utenam (Sept Îles) filed a claim for a declaration of aboriginal rights and title in Labrador in Federal Court. This application was dismissed in 2008 but may be refiled in provincial Superior Court.
- Uashat mak Mani-Utenam and Ekuaniqshit also intervened before the Public Utilities Board of Newfoundland and Labrador to suspend review of the proposed Water Management Agreement between Nalcor Energy and CF(L) Co. While this application was ultimately unsuccessful,

In addition to possible legal action, Québec Innu groups have been engaged in a variety of extra-legal activities designed to bolster their assertion of aboriginal rights and title in and to Labrador. In December 2008, the Ekuaniqshit, Matimekush-Lac John, Pessamit and Uashat mak Mani-Utenam communities united under the Innu
Strategic Alliance. Unamen Shipu joined a short time later. Nutashkuan and Pakua Shipi are not members. The Alliance now represents approximately 12,000 Innu – 70% of the Innu in Québec – and aims to defend the common rights and interests of its members, fostering the implementation of joint political, economic and legal initiatives.

- Recently, the Québec Innu Strategic Alliance has been working to defend the asserted aboriginal rights of Québec Innu in Labrador. The federal and provincial governments are currently engaged in land claims negotiations with the Innu of Labrador and the future treaty will likely grant exclusive territorial rights in Labrador to Labrador Innu communities. While a treaty with Labrador Innu cannot prejudice the claims of other aboriginal groups, Québec Innu communities have been critical of the treaty negotiations and their exclusion from the discussion process.

- In an effort to promote their assertion of aboriginal rights in Labrador, the Innu Strategic Alliance organized protests before parliament in November 2009 and February 2010, and approximately 150 Québec Innu held a caribou hunt in Labrador, north of the Churchill River in the Cache River area.

- On March 26, 2010, the federal government announced the creation of a forum to help successfully mediate an understanding between the Innu in Québec and Labrador. Mr. Fred Caron was subsequently appointed the federal special representative to the forum, and he has been consulting with the Innu in both provinces as well as the Governments of Quebec and NL on the establishment of the forum.

- In addition to assertion of land claims, each Québec Innu community has demanded the negotiation of an impacts and benefits agreement (IBA) with Nalcor as a precondition to the Generation Project proceeding.

Nalcor Assessment

- Nalcor has made every reasonable effort to engage Québec Innu communities in adequate and meaningful consultation as required by the Guidelines and has provided each Québec Innu community as well as the Naskapi Nation of Kawawachikamach with the opportunity to provide information respecting the potential effects of the Generation Project upon its interests, values and concerns.

- It is Nalcor’s position that the EIS responses to various information requests and the Consultation Assessment Report provide the Joint Review Panel with sufficient information as to the potential effects of the Project upon the Québec Innu to allow the Generation Project to proceed to the public hearings phase.

- The Transmission Project’s EIS Draft Guidelines and Scoping Document was provided to Québec Innu groups on July 21, 2010. On November 5, 2010, ENVC and the

- Nalcor has provided the various Québec Innu groups and the Naskapi Nation of Kawawachikamach with information related to the Transmission Project and will consult with these communities as required by the final Guidelines, expected early in 2011, at a level commensurate with the interests of each group.

Action Being Taken:
- None, for information purposes only.

Prepared by: Nalcor (Consulted with LAA)
Approved by: Robert Thompson

Ministerial Approval:

November 9, 2010
Information Note
Natural Resources

Title: Aboriginal Involvement – Impacts and Benefits Agreement (IBA)

Issue: Background information on the IBA initialed by Nalcor Energy and Innu Nation.

Background and Current Status:
- IBA negotiations between Innu Nation and Nalcor Energy ("Nalcor") commenced in 2000, and, with the exception of a period between 2003 and 2005 when the Project was inactive, continued until 2010.
- IBA negotiations gained new impetus in September, 2008, with the signing of the Tshash Petapen (New Dawn) Agreement ("Tshash Petapen") by the Province, Nalcor, Innu Nation and the First Nations. (A separate note on Tshash Petapen is available at Tab xx).
- The IBA was finalized and initialed by Nalcor, Innu Nation and the two First Nations on February 16, 2010. It will become binding upon ratification and execution by the Parties. Innu ratification will be via a community referendum and if the requisite degree of approval to the agreements is given by the Innu (60% 'Yes' vote in Sheshatshiu and Natuashish), the agreement will be signed by Nalcor Energy, Innu Nation and the two First Nations.
- The IBA is similar in form and content to other IBAs which have been negotiated between aboriginal groups and developers. It is a contract, the purpose of which is to provide benefits to address the adverse impacts of the Project upon the asserted aboriginal rights and interests of the Innu of Labrador.
- While the details of the IBA are confidential, it conforms to the general structure of normal aboriginal-developer accommodation agreements and addresses matters such as educational support, training and employment, preferential business opportunities, culturally sensitive workplace policies and conditions and participation in environmental management. Innu Nation and Nalcor will jointly implement the IBA and the IBA provides for an alternative process for dispute resolution to resolve differences between the Parties.
- The financial details of the IBA have been made public in Tshash Petapen:
  - During construction, Nalcor will pay Innu Nation $5,000,000 annually (the Implementation Payment) for ten years or until the production of first commercial power;
  - After first commercial power, Innu Nation will be entitled to receive the greater of 5% of Nalcor's after-debt net cash flow from Project revenues or $5,000,000 while the Project is in operation (the Annual Payment). Both Implementation Payments and Annual Payments are subject to indexation to a maximum of 2.5%. Implementation Payments and Annual Payments will be made to a trust established for the benefit of the Innu.
- In addition to revenue sharing, an Innu Business Participation Target of $400 million for the value of works, goods and services supplied to the Project by Innu Businesses has been established. If this target is not met, Nalcor will pay Innu Nation a penalty equal to 5% of the difference between the target and the total value of contracts.
awarded to Innu Businesses. In order to ensure that the target is met, Innu Businesses will be offered the first opportunity to bid on a scheduled list of contracts.

**Nalcor Assessment**

- The payments, commercial opportunities and other benefits conferred by the IBA upon Innu Nation, the First Nation and the Innu represent full and final compensation to the Innu for all adverse effects of the Project upon the aboriginal rights, titles and interests of the Innu of Labrador.
- In return, Innu Nation and the First Nations have provided Nalcor with a full and final release of all claims relating to adverse environmental effects or interference with aboriginal rights resulting from the planning, construction and operation of the Project. Individual Innu will, however, retain the right available to any other citizen to pursue legal action for claims relating to personal injury and property damage resulting from contractors’ negligence or misconduct.
- The IBA will become binding upon ratification by the Innu and execution by Innu Nation, the First Nations and Nalcor. The Innu ratification vote was originally scheduled to be held in the fall of 2010. It now appears that the vote will be delayed to sometime in 2011.
- Neither Innu consent to the Project nor an IBA is required by law; however, a positive Innu ratification vote and conclusion of the IBA will be an important factor in the smooth and timely implementation of the Project since it eliminates the risk of legal and other challenges to the Project by the Innu.
- A concluded IBA will also be regarded by both the Joint Review Panel conducting the environmental assessment of the Project and by government as a factor favouring release of the Project from environmental assessment.
- The IBA is also extremely important for the Innu – the employment and business opportunities and significant financial benefits flowing from the IBA will encourage the development of community capacity and the creation of a trained workforce with portable skills and expertise.
- The IBA will also be an important influence in building a relationship of trust and confidence between Nalcor and the Labrador Innu which may become increasingly important for future developments in Labrador.

**Action Being Taken:**

- Nalcor continues to take action to conclude the ratification of the IBA.

**Prepared by:** Nalcor (consulted with LAA, NR)

**Approved by:** Robert Thompson

**Ministerial Approval:**

30/10/2010
Title: Summary of Project

Issue: To provide background information and a summary of the Lower Churchill Project.

Background and Current Status:
- The Lower Churchill Project will be a two Phase development:
  - Phase 1 is comprised of the Muskrat Falls generating facility, associated AC transmission in Labrador and an HVdc transmission link from Labrador to the Island of Newfoundland and an HVdc Maritime Link from the Island of Newfoundland to Nova Scotia.
  - Phase 2 includes the Gull Island generation facility and any necessary transmission upgrades and infrastructure. This Phase is expected to start no earlier than three years after the start of Phase 1 and will be targeted at export opportunities and large scale mining or heavy industrial developments. (The associated infrastructure for both phases is attached as Annex A)
- Two market access alternatives are being advanced: one is a HVdc transmission system through the Island and into the Maritime Provinces; and the other is through Hydro-Quebec TransEnergie’s (HQT) System. Due to the wealth of surplus energy that will be available as a result of the development of both Muskrat Falls and Gull Island, along with other significant hydro and wind resources throughout the province, both routes are expected to be required in the long term.

Phase 1
The Muskrat Falls Project will include:

**Muskrat Falls Generating Facility**
- 24 MW generating facility
- Two HVac transmission lines connecting to Churchill Falls

**and Labrador Island Transmission Link (~1,100 km)**
- Labrador (900 MW) Converter Station (ac/dc)
- Overhead HVdc transmission line from Muskrat Falls to Strait of Belle Isle
- Submarine cables across the Strait of Belle Isle (30 km)
- Overhead HVdc transmission line from Strait of Belle Isle to Soldiers Pond
- Soldiers Pond (900 MW) Converter Station (dc/ac)
- Electrode sites in Labrador and Newfoundland

**Maritime Transmission Link from the Island of Newfoundland to Nova Scotia**
- Overhead HVac transmission connecting to the Island transmission grid
- Bottom Brook (500 MW) Converter Station (ac/dc)
- Overhead HVdc transmission from Bottom Brook to Cape Ray
- Submarine cables across the Cabot Strait to Lingan, Nova Scotia (180 km)
- Cape Breton (500 MW) Converter Station (dc/ac) tying into the existing Nova Scotia transmission grid.
Nalcor has evaluated all practical supply options for generation sources to meet the Island's long term electricity needs and has determined that Muskrat Falls with a transmission link to the Island, provides the least cost and most environmentally friendly solution to meet the domestic needs of the Island.

- As an economic long-term solution for rate payers, it will also meet the Province's forecasted demand growth until 2041 when the Churchill Falls contract expires.
- This option will also lead to the retirement of the Holyrood generation station and result in the Province's electrical generation system being > 98% GHG emission free.
- (A more detailed description of the Long Term Generation Decision is available at Tab A3)

**Maritime Link**

- The Muskrat Falls and Labrador-Island Transmission Link will produce electricity in excess of what is required within the Province. After consideration of a number of options (Quebec route, Maritime route, and industrial development in Labrador and on the Island) Nalcor has determined that the Maritime Link is the most effective option to monetize any excess electricity.
- The Maritime Link will enable the delivery of non-emitting generating resources in Newfoundland and Labrador, including supply from the Lower Churchill Project, to the Atlantic Canada market, and will further enable the integration of variable/intermittent generation sources such as wind and tidal energy in the region and optimization of existing generating facilities.
- Under this option, Nalcor will arrange for transmission access through Nova Scotia, New Brunswick, and onto New England (Maine). Nalcor may sell energy into all three jurisdictions or secure pricing arrangements with a strategic partner (Emera Energy), to achieve net revenue as if Nalcor had such transmission access.
- The Maritime Link provides the highest increase in system reliability as it will provide a transmission interconnection of the Island's electricity grid to two neighbouring systems - the Maritimes and Quebec.
- (A more detailed description of the decision on monetizing excess power is available at Tab xx)

**Phase 2:**

- Phase 2 includes the Gull Island generating facility and associated transmission requirements and is expected to commence no earlier than three years after the start of Phase 1. (See Annex A for infrastructure details)
- Phase 2 will be targeted at export opportunities and large scale mining or heavy industrial developments. These developments could be in existing industries, including the expansion of iron ore projects in Labrador West, underground expansion of the Voisey's Bay nickel mine and development of the Aurora energy uranium mine or by new, yet to be identified power-intensive industries that my be interested in bringing business to the province as a result of the availability of predictably priced electricity from the Project.

**Project Readiness**

- Nalcor has conducted three reviews to test the adequacy of its readiness to proceed to the next phase of development.
o **Internal Review** – Gateway Process Deliverables: assessing viability through key milestones. Nalcor has:
  - Finalized a Water Management Agreement;
  - Initiated an Environmental Assessment process;
  - Analysis of market access opportunities;
  - Developed a financing strategy;
  - Finalized an IBA with Innu Nation of Labrador;
  - Completed required engineering and design work, studies, and field work;
  - Understanding of cost, schedule, and risk; and
  - Determined the optimum development configuration.

o **External Review** – Independent Project Analysis: a systematic evaluation of both Muskrat Falls and the Island Link project conclude that the “project is better prepared than a typical megaproject...and the project has clear objectives and a well-developed project team that has closed the project scope and achieved optimal project definition.”

o **External Review** – Independent Project Review: The team consisted of four experts and a combined 150+ years of project execution experience and recommended that the project has completed the steps necessary to support the decision to proceed to the next phase of the development.

**Action Being Taken:**
- None, for information purposes only.

**Prepared By:** Susan Brewer / Rob McGrath / Angie Philpott, DNR

**Approved By:**

27/10/2010
Annex A

Associated Infrastructure for Phases 1 and 2

Muskrat Falls Plant:
- A hydro-electric generation plant on the Churchill River in the vicinity of Muskrat Falls, Labrador to be constructed by Nalcor with Annual Energy expected to average 4.9 TWh having a capacity of 824 MW and two 263 km 345 kv transmission lines from the Muskrat Falls Plant to Churchill Falls generating plant in Labrador, all subject to final design decisions
- The facility will include a dam built in two sections (north and south abutments of the river), a reservoir, and a powerhouse consisting of four propeller or Kaplan turbines.
- The north dam will be 32m high and 432m long and the south dam will be 29m high and 325m long.
- The reservoir will be 59km long with an area of 10km². The area of inundated land will be 41km² at full supply level.

The Labrador-Island Transmission Link:
- The island link will be the first of its kind in Newfoundland and Labrador. It will include the construction and operation of an approximately 1,100 km long transmission line that will be constructed from Muskrat Falls, Labrador, down to Soldiers Pond on the Island's Avalon Peninsula.
- As currently planned, the ± 450 kV HVdc transmission system will include the following key components:
  - Muskrat Falls Converter Station: A facility on the north side of the Churchill River to convert a portion of the ac (alternating current) electricity from the Lower Churchill Hydroelectric Generation Project into dc (direct current) form;
  - Transmission Line – Muskrat Falls to Strait of Belle Isle: An overhead HVdc transmission line, consisting of single galvanized steel lattice towers (averaging 43 m in height) along a cleared right of way approximately 407 km long and averaging 60 m wide;
  - Strait of Belle Isle Cable Crossings: The placement of three-five submarine cables within two 27-36 km long corridors across the Strait, installed beneath the seabed through tunnelling, trenching, rock placement and/or other means to provide the required cable protection;
  - Transmission Line – Strait of Belle Isle to Avalon Peninsula: An overhead HVdc transmission line, up to approximately 760 km long with similar characteristics to that described in the Gull Island to Strait of Belle Isle section;
  - Soldiers Pond Converter Station: A facility to convert the dc electricity transmitted across the HVdc system back into ac form, for distribution to and through the island grid;
  - Electrodes: A high-capacity grounding system at each end of the HVdc line to assist in system stability and to provide an alternate return path in a fault condition event whereby a conductor becomes temporarily out of service. The link will be connected to their respective converter stations via overhead wood pole lines.
Nalcor has identified a two km wide corridor for most of the on-land portions of the proposed HVdc transmission line and 500 m wide corridors for the proposed Strait of Belle Isle cable crossings, as well as various alternative corridor segments in particular areas. Potential on-land corridors and study areas have also been identified for the proposed electrodes.

The size of these corridors will be reduced where specific transmission line routes will eventually be selected within these corridors on the basis of technical, environmental and socioeconomic considerations and after consultation with the public.

The Transmission Link will be designed to accommodate for future developments or market decisions that require additional power be transported over the HVdc system for use and/or export. For example, the link design provides an option to be extended and deliver up to an additional 1,000 MW to the Maritime Provinces through the Maritime Link with no changes to the operation voltage or the overland transmission lines.

Maritime Link:
- The Maritime Link entails new transmission line and related components to be constructed by Nalcor and presently includes:
  - DC converter stations in Bottom Brook, NL and Cape Breton, NS;
  - An approximate 180 kms of sub-sea cable connecting Cape Breton, NS and Cape Ray, NL;
  - An approximate 140 km 230 kv transmission line from Granite Canal, NL to Bottom Brook, NL;
  - An approximate 127 km transmission line from Bottom Brook, NL to Cape Ray, NL; and
  - Additional transmission infrastructure in NL to be further refined as the requirements to connect the Maritime Link to the Island Interconnected System are optimized.
- Information on the procurement schedule and the approvals process for the project is attached as Annex A.

Gull Island Generation Facility:
- The Gull Island facility will consist of a generation station with a capacity of 2,250 MW. The facility will include a reservoir, a dam, and a powerhouse with five Francis turbines.
- The Facility's reservoir will be 232km long, and the area of inundated land will be 85km². The dam will be a concrete-faced, rock fill construction 99m high and 1,315m long, establishing a 213km² reservoir with a full supply level of 125m above sea level.
- Transmission lines and infrastructure will be upgraded to transmit the electricity from the generating stations. As per the Environmental Assessment, they are designed to be:
  - 203km long for the 735 kilovolt (kV) line from the Gull Island Facility
  - 60km long for the double-circuit 230kV line between Muskrat Falls and Gull Island.
  - Both transmission lines will be supported by lattice-type steel structures and located north of the Churchill River, requiring a cleared right of way approximately 80m wide in addition to the existing right of way.
Annex B

Procurement Schedule for Maritime Link

The following presents three schedule scenarios – least favorable, likely, and most favorable. The schedule is highly dependent on:

- timelines for environmental assessment.
- global demand for cable manufacture and installation
- developer interest and timelines required to finalize agreements.

This schedule will be refined with further project definition.

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<th>Most Favorable</th>
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Monetizing Excess Power

Natural Resources

Issue: To provide information regarding Nalcor's plans to add value to Phase 1 of the Lower Churchill Project by realizing revenue from the excess power that will be produced from Muskrat Falls.

Background and Current Status:

• Phase 1 of the Lower Churchill development is comprised of the Muskrat Falls generating facility, a transmission link from Labrador to the Island of Newfoundland and a Maritime transmission link from the Island of Newfoundland to Nova Scotia. Phase 2 includes the Gull Island generating facility and associated transmission requirements which will be developed several years after the completion of phase 1. (A summary of the Project is available at Tab xx)

• The 824 MW of electricity that will be produced from Muskrat Falls will meet the long term domestic needs of the Province, however, this option results in significant unused electricity in the early years of production, declining over time as demand in the Province grows. While options to receive value associated from unused power were not included in determining the best options to meet the provinces domestic needs, in order to prepare for development of Phase 1 of the project, Nalcor has evaluated options to add value to Muskrat Falls via the Island Link by realizing revenue from the excess power.

• Three alternatives to optimize the value of any unused power available, after Provincial needs are met, were analyzed (A summary of export markets is attached as Annex A):
  1. Quebec Option - Sales through Quebec to the Maritimes, New England, Ontario and Quebec. In this option, Muskrat Falls power not required for Island use would be sold via the Hydro Quebec (HQ) transmission grid to markets adjacent to Quebec.
  2. Maritime Link Option - Sales into the Maritime Provinces and through to New England via a Maritime Link connecting the Island of Newfoundland with Nova Scotia. In this option, the Maritime Link is constructed, in conjunction with an investment partner (Emera Energy).

As a result of the analysis of all of the three options outlined above, Nalcor has concluded that the Maritime Link Option is the most effective manner to optimize the value of the unused energy from Muskrat Falls. Under this option, Nalcor will arrange for transmission access through Nova Scotia, New Brunswick, and onto New England (Maine). Nalcor may sell energy into all three jurisdictions or secure pricing arrangements with a strategic partner (Emera Energy), to achieve net revenue as if Nalcor had such transmission access. (A separate note on the Terms of this agreement is available at Tab xx)

• With respect to the Quebec Option, given recent developments in Quebec, a new long term firm transmission booking is not expected prior to Phase 1 approval (Separate notes on issues with Quebec are available at Tab xx).
• With respect to the sale of surplus power to new industrial customers in Labrador and on the Island, several potential projects were assessed, but the value returned for the price required was not deemed to add appropriate value. (A more detailed description of the analysis of all options is attached as Annex B)

Selection Rationale
• The Maritime Link Option provides the highest increase in system reliability as it will provide a transmission interconnection of the Island’s electricity grid to two neighbouring systems, the Maritimes and Quebec.
• The Maritime Link also creates significant strategic value in the following ways:
  o It is expected that transmission capacity needs over the long term will require extensive transmission routes through both the Maritimes and Quebec.
  o The Maritime Link Option enables Nalcor to act on a time-sensitive opportunity to forge strategic energy partnerships in the Maritime Provinces.
  o Nalcor will establish a second route into North American electricity markets, further establishing a Nalcor and Newfoundland and Labrador presence in regulatory jurisdictions which regulate fair transmission “open access”.
  o Allows a balance of labour demands with construction sequencing of the phase 1 and phase 2 generation sites which will minimize human resource availability concerns.
  o This sequencing of developments provides a financing benefit as the cash flow from one producing project can be invested in to the second project during the construction phase. (see Annex B for a more detailed description of the Analysis results)

Prepared/Approved by: Angie Philpott / Rob McGrath, DNR
Approved by:

Ministerial Approval:

27/10/2010
Market Assessment and Opportunities

- Market opportunities are derived from four key underlying market conditions:
  
  1. Servicing existing demand currently served by aging generation facilities that are forecast to reach the end of their service lives in the next 10 to 20 years;
     - Newfoundland and Labrador – 500 MW Holyrood generating station will need major refurbishment to remain open post 2020.
     - Nova Scotia – 1,430 MW of the installed capacity in Nova Scotia will reach the end of the expected service life by 2030 or earlier.
     - New Brunswick – 322 MW of the installed capacity in New Brunswick will reach the end of the expected service life by 2030 or earlier.
     - Ontario – 2,000 MW of coal capacity is to be shut down this year, with the remaining 4,000 MW shut down by 2014. In addition, 2,200 MW at the Pickering nuclear facility will be shut down by 2020.
     - Other – US electricity sector is facing similar challenges with over 45,500 MW of installed capacity expected to be retired by 2035.

  2. Displacement of existing GHG emitting thermal generation that must be reduced or shut down completely to comply with federal and provincial regulatory requirements;
     - Market demand for non-emitting generation will be driven by GHG regulation and eligibility under the renewable portfolio standards (RPS) of many jurisdictions.
     - The integration of additional renewable generation (such as wind) in key markets through RPS is an additional market opportunity because the introduction of large quantities of intermittent renewable generation will have operating implications that will increase the requirement for dispatchable generation. In this sense, hydro power is superior in that it is both non-emitting and dispatchable.
     - Of 24 coal plants in Ontario, New Brunswick, and Nova Scotia, 22 will reach the end of their economic lives by 2030 and given stringent federal regulations for the efficiency of coals plants reaching the end of their service lives Nalcor feels that much of this capacity will be retired rather than retrofitted.
     - In addition to those in Canadian jurisdictions, New England and New York have adopted RPS.

  3. Growth in demand, net of demand side management and conservation targets;
     - Growth in demand for energy and capacity over the next decade is forecast to be relatively moderate to low, however it indicates that this forecast is based in part on aggressive Demand Side Management and Conservation
targets in a number of jurisdictions. Should jurisdictions fall short of these targets, higher growth rates than forecast will result.

- The United States Department of Energy forecasts total electricity demand to increase by 26% from 2010 to 2035, and average annual load growth of about 1%.

4. Desire for dispatchable energy sources in a preferred supply portfolio.
- Large hydro is attractive in any market supply mix because of its operating flexibility relative to other sources. It can be dispatched on a timely basis when the requirement is highest due to demand and/or lack of availability of intermittent sources.

- On behalf of Nalcor, Navigant Consulting undertook an assessment of the market potential of various markets for the period out to 2030. Navigant arrived at the following conclusions:

1. Analysis of the forecast net change in the supply/demand balance and the potential for displacement of carbon production represents a significant market potential through 2030. The seven markets considered (Newfoundland and Labrador, Nova Scotia, New Brunswick, Ontario, Quebec, New England, and New York) show a combined market potential of 135 TWh/year, including 22 TWh/year from load growth net of new committed capacity, 13 TWh/year from replacement of aging Canadian generating capacity, and approximately 100 TWh, year from the opportunity to displace existing fossil generation.

2. The overall identified market potential is almost eight times the size of the annual output of the projects in 2020.

3. By 2020, market potential in Nova Scotia and New Brunswick is estimated to be almost 13 TWh/year. 60% of this arises from potential displacement of fossil fuel generation with the remainder due to potential replacement of aging infrastructure. Little load growth is expected although this could increase if aggressive demand side management and conservation targets are not achieved.

4. Ontario has a market potential of some 44 TWh/year arising from retirement of coal and nuclear plants and has a Feed in Tariff program which is expected to lead to the introduction of 2,500 MW of renewable generation – this will increase the need for dispatchable power.

5. New York and New England represent large markets with a combined 96 TWh/year of market potential attributed to a combination of load growth and displacement of fossil fuel generation. No attempt was made to quantify potential arising from the replacement of aging infrastructure in the US.

6. Quebec shows a relatively low market potential of approximately 3 TWh/year by 2020.
Annex B

Monetizing of Excess Power Options Analysis

Quebec Option
In this option, Muskrat Falls power not required for Island use would be sold via HQ to markets adjacent to Quebec as Quebec itself does not have a proven liquid market into which to sell. Given recent developments in Quebec, a new long term firm transmission booking is not expected prior to Phase 1 approval. For evaluation purposes, the Quebec Option transmission access is assumed to be equal to the existing HQ transmission booking, in which Nalcor acquired 250 MW of firm transmission service in 2009 in order to transmit the 300 MW recall availability from Churchill Falls to export markets. This booking is not fully utilized at all times, particularly during periods when loads in Labrador are high.

[Based on expected Recall Sales, approximately XX GWh of production from Muskrat Falls may be sold on a firm basis. In theory it is possible that additional power could be sold by purchasing non-firm transmission rights on a short-term basis in the future, however, due to current uncertainty surrounding the extent to which Quebec's open access system is actually non-discriminatory, this non-firm potential was not included in the analysis.]

Maritime Link Option
In this option, the Maritime Link is constructed, in conjunction with the Emera transaction as set out in the term sheet. The principal elements of the Emera transaction are:

- Emera invests (20%) of the total capital cost of Phase 1 (including the Maritime Link), and is responsible for (20%) of the operating costs in return for an entitlement to 20% of the capacity and annual energy produced from Muskrat Falls for a period of 35 years;
- Nalcor also obtains all access rights to the Maritime Link in excess of that required to deliver the entitlement above; and
- Nalcor obtains firm transmission rights from Emera in Nova Scotia, New Brunswick and through to Maine.

In this option, Nalcor has the option to market excess power (this is, in excess of Island requirements and the Emera entitlement) to Nova Scotia, New Brunswick and/or New England markets via the Maritime Link. Nalcor may also market power via HQTE using the available portion of the existing booking, as in the Quebec Option. For purposes of evaluation and in the absence of bilateral arrangements currently in other jurisdictions, all remaining sales of otherwise spilled\(^1\) power are sold at spot prices projected to be available at the time of sale as follows:

- To NEISO Maine via New Brunswick using firm transmission rights available as per the Term Sheet
- To New York Independent Systems Operator (NYISO) via Quebec as in the Quebec Option.

This analysis takes into account all costs, including transmission losses and incremental tariffs.

Sales of surplus power to new industrial developments in Labrador and on the Island

\(^1\) Excess power which is not used in the early years is assumed to be lost, by spilling water over the dam and gaining no monetary value from the electricity that the excess water could generate.
In conjunction with exploring export markets, Nalcor Energy also has actively pursued the potential for an aluminium smelter for the Province using power from the Lower Churchill Project. These advanced discussions with three different proponents were at varying stages of advancement, up to and including the negotiation of draft term sheet. Consistent with the directives of the Energy Plan that any industrial customers pay rates for power that provide an appropriate level of value to the Province, these negotiations were discontinued because the value returned for the price required was not deemed to add appropriate value. As Nalcor moves forward with Phase 2 of the Project, it will continue to consider industrial development opportunities from new industries or from existing resources industries in Labrador and on the Island.

**Analysis Results**

Nalcor Energy has concluded that the most effective manner to optimize the value of the unused energy from Muskrat Falls, and avoid spilling water and gaining no value, is to construct a subsea transmission link from Cape Ray, NL to Cape Breton Island in Nova Scotia, and arrange for transmission access through Nova Scotia to New Brunswick, and through New Brunswick to New England, with sales of energy into Nova Scotia, the Maritime Provinces, and New England, or pricing arrangements with a strategic partner Emera Energy to achieve net revenue as if Nalcor has such transmission access. *(A separate note on the Term Sheet is available at Tab xx)*

Nalcor has determined that the Quebec option yields an expected Internal Rate of Return (IRR) of (XX%) and a Net Present Value (NPR) of ($XX). [The Maritime Option presents a similar IRR of (XX%) and an NPV of (XX), although there is more risk associated with the Quebec option due to the uncertainty around open access in that jurisdiction that is not included in the analysis.] As the two options have a relatively similar IRR and NPV, the following criteria were considered in finalizing the selection of the Maritime Link option as the preferred option.

The Maritime Link option provides the highest increase in system reliability of the two options. A Maritime Link provides transmission interconnection to the Island's electricity grid to two neighbouring systems, the Maritimes and Quebec. For the first time in history, the Island will no longer be an isolated grid, but instead linked via two routes into the North American grid. This dual link creates the greatest reliability for the Newfoundland and Labrador grid.

The Maritime Link creates significant strategic value. There are a number of factors in this analysis;

1. Muskrat Falls at 824 MW comprises approximately (8%) of the undeveloped renewable resources in the Province. (See Energy Plan, 6000 MW undeveloped Hydro plus 5000 MW of undeveloped Wind). Gull Island at 225 MW will comprise Phase 2 of the renewable Energy Warehouse development (20% of the total).

It is expected that transmission capacity needs over the long term will require extensive transmission routes through both the Maritime Provinces and Quebec. The Maritime Link for this development establishes the first phase of a longer term plan to establish, in addition to Quebec transmission open access, extensive transmission capacity through multiple cables into the Maritime Provinces and into...
New England, jurisdictions comprising one of the largest, growing electricity markets in the world. In addition to providing long term renewable energy to the Maritime Provinces, the contribution of this option to the long term fulfilment of the Atlantic Energy Gateway Initiative will be significant.

2. The Maritime Link Option enables Nalcor to act on a time-sensitive opportunity to forge strategic energy partnerships in the Maritime Provinces. If lower Churchill power is not made available to these markets in the 2015-2020 timeframe, these jurisdictions will meet their needs by other means and the opportunity to form energy partnerships may be lost for an extended period. Nova Scotia, New Brunswick and Prince Edward Island have a need to replace aging and non-renewable generation. Maine and other New England states are also seeking competitively-priced renewable electricity. Emera subsidiaries include Nova Scotia Power and Bangor Electric in Maine. A strategic, fair agreement with Emera provides Nalcor with a strategic partner in key markets. In addition, longer term relationships are also being pursued in other Maritime Provinces.

3. By adopting the Maritime Link Option, Nalcor will establish a second route into North America electricity markets, further establishing a Nalcor and Newfoundland and Labrador presence in the regulating jurisdictions which regulate fair transmission “open access”.

4. It has always been the intent to balance labour demands with construction sequencing of the two generation sites with at least a three year interval. This is reflective of prudent construction management, moving resources from one project to another rather than peaking all resource requirements at one time. Doing so minimizes resource availability concerns and subsequently Gull Island gains value in the form of increased productivity by applying experience gained on Muskrat Falls. Such sequencing also optimises potential labour overlap issues with other potential projects such as the Hebron development project.

5. In addition, sequencing the developments with an approximately three year interval provides a financing benefit, as the cash flow from on producing project can be invested into the second project during the construction phase.

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2 Phase 2 is expected to start no earlier than three years after the start of Phase 1.
Information Note
Natural Resources

Title: Maritime Link – Environmental Assessment

Issue: To provide the current status of the Maritime Link environmental assessment process.

Background and Current Status:
• The Maritime Link has not yet been registered for an Environmental Assessment.

Action Being Taken:
• Preliminary work on the preparation of a regulatory strategy, consideration of design options and discussions on the potential ownership structure are underway with Emera. DNR is monitoring process and participating as required.

Prepared/Approved by: Rob McGrath, DNR
Approved by:

Ministerial Approval:

29/10/2010
Information Note
Natural Resources

Title: Benefits Summary – Strategic Concepts Inc. Report

Issue: To provide a summary Strategic Concepts Inc.'s economic impact analysis for Phase 1 and Phase 2 of the Lower Churchill Project

Background and Current Status:
- Nalcor engaged Strategic Concepts Inc. – a local business consulting firm specializing in strategic planning, financial modeling and business development – to complete an economic impact analysis for both Phases of the Lower Churchill Project. Below is a summary of their findings (see basis of analysis attached as Annex A):

**Phase 1**

*Employment (by Location)*
- Total NL employment is estimated to be 18,400 person years or approximately 2,800 person years per year.
- Peak Direct NL employment estimated to be approximately 2,700 in 2013.
- Total Labrador employment is estimated to be approximately 7,500 person years or approximately 1,150 person years per year (see Annex B for employment Tables)
- Canada-wide employment is estimated at over 48,000 person years or over 7,400 person years per year
- Quebec and Ontario are anticipated to be the biggest recipient of employment after NL at over 11,000 person years each (1,700 per year) – largely attributable to indirect and induced employment.

*Employment (by residence)*
- Total NL employment is estimated to be 16,000 person years or approximately 2,500 person years per year.
- Total Labrador employment is estimated to be approximately 4,300 person years or approximately 660 person years per year (see Annex B for employment Tables)
- NL residents are assumed to receive over 62% of Direct employment
Canada-wide employment is estimated at over 47,000 person years or over 7,200 person years per year.
Quebec and Ontario are anticipated to be the biggest recipient of employment after NL at over 11,000 person years each.

**Income**
- Total NL income to labour and business is estimated to be $1.4 billion or $200 million per year.
- Canada-wide income to labour and business of $3.5 billion or $540 million per year.
- Quebec and Ontario biggest recipient of incomes after NL at $750 million each or $120 million per year.

**Taxation (Phase 1)**
- Taxation impacts include direct, indirect and induced personal income taxes, corporate income taxes, sales taxes and other taxes from construction expenditures.
  - Over $210 million in taxes to the NL government;
  - Over $520 million in taxes to the Federal Government;
  - Approximately $290 million in taxes to the other provincial governments.

**Phase 2**

**Employment (by Location)**
- Total NL employment is estimated to be 18,500 person years or approximately 2,050 person years per year.
- Peak Direct NL employment estimated to be approximately 2,100 in 2017.
- NL is assumed to receive over 55% of Direct employment.
- Total Labrador employment is estimated to be approximately 10,000 person years or approximately 1,100 person years per year (see Annex B for employment Tables).
- Canada-wide employment is estimated at over 76,000 person years or over 8,400 person years per year.
- Quebec is the recipient of greatest employment at 31,000 person years or over 3,400 per year.

**Employment (by residence)**
- Total NL employment is estimated to be 16,000 person years or approximately 1,800 person years per year.
- Total Labrador employment is estimated to be approximately 4,500 person years or approximately 500 person years.
per year (see Annex B for employment Tables)

- NL residents are assumed to receive over 41% of Direct employment
- Canada-wide employment is estimated at over 75,000 person years or over 8,300 person years per year
- Quebec is the biggest recipient of employment at over 31,000 person years

**Income**

- Total NL income to labour and business is estimated to be $1.4 billion or $150 million per year.
- Canada-wide income to labour and business of $5.6 billion or $620 million per year.
- Quebec is biggest recipient of incomes at $2.3 billion or over $250 million per year.

**Taxation**

- Taxation impacts include direct, indirect and induced personal income taxes, corporate income taxes, sales taxes and other taxes from construction expenditures.
  - Taxation impacts are approximately:
    o $210 million in taxes to the NL government;
    o $880 million in taxes to the Federal Government;
    o $650 million in taxes to the other provincial governments, including $390 to the Quebec government

**Operations**

- SCI determined that the employment impacts for all project components are significant and long-term.
- Average NL employment will be over 400 persons per year, including 120 direct full-time jobs. A significant proportion of this direct employment will be in Labrador.

**Summary of Findings (Phase 1 and 2)**

- The total economic benefits from both phases is summarized as follows:
  - *Income to labour and business:*
    o $2.8 B to NL ($900 M to Labrador)
    o $3.1 B to Quebec
    o $2.0 B to Ontario; and
    o $9.1 B to Canada as a whole
  - *Total Employment (person years):*
    o 32,000 to NL (average NL-based direct employment of 2,700 for 4 year period from 2013-16)
    o 43,000 to Quebec
    o 31,000 to Ontario; and
    o 122,000 to Canada as a whole
  - *Taxation revenue:*
    o $420 M to NL
    o $510 M to Quebec; and
    o $1,400 M to Federal Government

**Action Being Taken:**
- None. For information purposes only.

Prepared/Approved by: Rob McGrath, DNR
Approved by:

Ministerial Approval:

15/11/2010
Annex A

Basis of SCI Analysis:

• Phase 1 (2010-17):
  o Muskrat Falls Generation Facility
  o Island Link Transmission
  o Maritime Link Transmission

• Phase 2 (2013-22):
  o Gull Island Generation Facility
  o GI-QC border transmission line
  o Hydro Quebec Transmission Upgrades

• Operations (2017-49):
  o Muskrat Falls
  o Island Link
  o Maritime Link
  o Gull Island
  o Corporate
  o Hydro Quebec Transmission

Phase 1:
• Muskrat Falls Generation Facility - $2,514 M
  o Includes Muskrat Falls facility plus transmission to Churchill Falls
• Island Link Transmission - $1,810 M
  o Includes transmission lines from Muskrat Falls to Soldier’s Pond, subsea cables across the SOBI, electrode lines, upgrades to the island grid and converter stations
• Maritime Link Transmission - $1,029 M
  o Includes transmission lines on the Island to the southwest coast, subsea cables across the Cabot Strait, electrode lines, upgrades to the island grid and converter stations

Phase 2:
• Gull Island Generation Facility - $3,880 M
  o Case 1 capital cost estimate for Gull Island Generation Facility, adjusted for changes in transmission configuration to Churchill Falls
  o Includes Gull Island Falls facility and ties to transmission lines to Churchill Falls
• HQ Transmission Upgrades - $3,335 M
  o Based on Option 4 from HQ System Impact Study (SIS)
  o Costs factored back from in-service costs in SIS to 2010$
• Gull Island to QC Border Transmission - $262 M
  o Case 3 capital cost estimate for GI to QC border 735 kV HVac transmission line

Operations:
• Operating Costs for:
  o Muskrat Falls
  o Island Link
- Maritime Link
- Nalcor Corporate
- Gull Island
- HQ transmission
Annex B

Employment Tables:

Phase 1 (by location)

<table>
<thead>
<tr>
<th>Direct Employment</th>
<th>Project</th>
<th>Island</th>
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<th>Direct, Indirect, and Induced Employment</th>
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Phase 1 (by residency)

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<tr>
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<td>10,831</td>
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## Phase 2 (by residency)

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<tr>
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<td>645</td>
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<td>6,252</td>
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<tr>
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<td>15,419</td>
<td>10,831</td>
<td>2,921</td>
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Summary of Lower Churchill Announcement

1. Project Recommended by Nalcor

The Provincial Government has approved the key elements of a development plan for the lower Churchill hydroelectric project. This approval is based on a submission to the government by Nalcor that: 1) Muskrat Falls be used as the next generation source to meet future electricity needs inside the Province, including a transmission link to the Island, 2) surplus power from Muskrat Falls project be monetized through a maritime link for the export of energy, starting with an agreement between Nalcor Energy and Emera Inc.; and 3) Gull Island will be developed approximately three years after Muskrat Falls with a plan to overlap construction.

2. Next Generation Source for the Province

Newfoundland and Labrador Hydro, a subsidiary of Nalcor Energy, is mandated by the Public Utilities Board to forecast electricity requirements in the province and bring forward the lowest cost option for meeting these requirements. Nalcor has estimated that an energy capacity deficit will emerge in the province by 2015, and an actual energy deficit will emerge by 2019, even taking into account the surplus power available from the closure of two pulp and paper mills. Therefore, Nalcor evaluated alternatives to develop new generation sources to avoid this deficit. Nalcor assessed five realistic alternatives and found the Muskrat Falls project with a transmission link to the Island to be the lowest cost alternative, even if surplus power is spilled over the dam. It is important to note that in each of the generation expansion options other than LCP, the Holyrood thermal plant continued operation and underwent significant capital upgrades to address emissions and reliability.

Muskrat Falls has a capacity of 824 megawatts of electricity, and an annual energy output of 4.9 terawatt hours, more than enough to take the Holyrood thermal generating station off-line, avoid expensive capital upgrades to the Holyrood plant, and meet the electricity demand growth in the province up to 2041. The Muskrat Falls option is also more environmentally acceptable than maintaining an “isolated” Island power system, which would retain Holyrood in operation as a major source of greenhouse gases.

Large generation projects that will meet energy needs over a long period of time are not unusual. While these projects have a higher initial capital cost, the long term lower unit cost of electricity provides rate payers with rate stability. An example of this was the Bay D’Espoir development which was first commissioned in 1967 in to meet future expected demand. The project was
developed in 5 phases with the latter two, Upper Salmon (84MW) and Granite Canal (41MW), increasing the generating capacity to 729MW and delivering x.xx TWh of energy each year. Combined, these three hydroelectric generating plants provide almost 80 per cent of the hydroelectric power generated on the island.

3. Stable and Comparatively Lower Consumer Electricity Rates

If Nalcor had recommended the continuance of an isolated Island system, the impact on electricity consumers would be comparatively higher electricity prices due mainly to the higher unit cost of the other supply options, escalating oil prices and the mandatory upgrading of the Holyrood station (to maintain reliable operation and to deal with pollution abatement). In contrast, even though consumer electricity rates will also increase under the Muskrat Falls option, once the facility is in operation the energy price structure in the province will be stable and lower cost over a long period of time and will avoid the volatility associated with the price of oil.

Between 2010 and 2016, electricity rates will escalate whether or not the lower Churchill project is started. Based on current projections, in 2017, the first in-service year for Muskrat Falls, the average revenue requirement (which is analogous to the wholesale cost of electricity) will be 10.7 cents/kwh, slightly higher than the isolated Island system at 10.0 cents/kwh. This difference may not occur at all if there are lower capital costs for the project, a higher price of oil for the isolated system, or rate smoothing techniques in the interest of consumers. In any event, the electricity system will thereafter have a consistently lower and stable price using Muskrat Falls energy. For example, by 2024, the average revenue requirement for Muskrat Falls would be 10.6 cents/kwh as compared to 12.1 cents/kwh under an isolated island system scenario. In other words, after 2017, there will be a penalty if the Island system remains isolated. (see attached chart).

It is not possible to project with precision the retail electricity rates for consumers in 2017 or beyond because the Public Utilities Board must make decisions on how wholesale costs will be allocated to various classes of rate payers (e.g., residential, consumer), and must also incorporate the costs pertaining to distribution by Newfoundland Power.

Future oil prices are a major consideration when comparing Muskrat Falls to an oil-fired isolated electricity system. Not only are oil prices volatile, it is quite certain they will rise rapidly. According to a report by the International Energy Agency (IEA), released this week, global oil supplies will come close to a peak by 2035 when oil prices will exceed US$200 a barrel(nominal prices), as China and other emerging economies drive demand higher. The IEA is also predicting that
oil prices would rise even further if governments do not act to curb consumption through measures such as climate change policies and pledges. This forecast is very similar to the PIRA oil price forecast that underlies the forecasting work of Nalcor when assessing alternatives for supplying NL customers into the future.

4. Realizing Value in Surplus Power – the Emera Deal

While Muskrat Falls/Island link project stands on its own as a necessary and viable project, the surplus water during the next 30 years represents potential value to Nalcor and the Province. Therefore, Nalcor has negotiated a Term Sheet with Emera to utilize 20% of the electricity from Muskrat Falls. In return for this energy, Emera will invest an amount equal to 20% of the costs of the three-part capital project – Muskrat Falls generation, Island Link transmission and Maritime Link transmission. Emera’s 20% investment will be tied to transmission assets only, in particular the Maritime Link. Additionally, Emera will pay 20% of the ongoing operating costs of the overall three-part project for the 35 year life of the agreement. On top of obtaining a secure long term customer for power and an investor in the project, Emera has agreed to provide Nalcor with the right to use its transmission system in Nova Scotia and New Brunswick, all the way to a point of sale in Maine, to sell other available electricity directly into the marketplace.

5. Additional Investment

Emera will have the option to make an investment in the Labrador Island Link up to a maximum of 49% of the value of the Maritime Link, Island Link and Labrador Transmission less the capital cost of the Maritime Link (approximately $560 million). Emera will establish a regulated utility in NL to manage this investment.

6. The Emera deal brings enormous strategic value to Nalcor

Access to Emera’s transmission capacity puts Nalcor into “the game”. Emera is providing transmission capacity to the Maritime and New England markets for NL power. This deal allows NL to escape the geographic stranglehold represented by Quebec and give NL options for market access that it never had before. The New England market in particular is a large market that is expected to grow substantially in the future, and faces the extraordinary challenge of switching from thermal generation to renewable sources of generation. Given the relatively higher cost of other renewable sources such as wind and solar, hydro power represents a cost-effective, reliable, and proven solution for the needs of this region.
The Emera partnership, in addition to providing cost effective access to existing transmission capacity, allows Nalcor to leverage the knowledge, skills and reputation of Emera in energy trading.

The Emera deal also allows NL to sell power and enter into partnerships with New Brunswick and PEI, thereby enhancing Atlantic cooperation and advancing the goals of the Atlantic Energy Gateway.

7. Project not Sanctioned for Construction

Government's acceptance of Nalcor's recommendation is a historic milestone in the development of the lower Churchill resource. However, certain critical milestones still remain before the start of the project is sanctioned for construction. Among these milestones are: 1) release of the generation project from environmental assessment; 2) transition from a MOU with the Innu Nation regarding impacts and benefits into a formally ratified Agreement 3) finalizing the agreement with Emera; and 4) completing pre-front end engineering work. The agreement with Emera will become fully binding if the conditions outlined in the agreement are fulfilled, including such matters as environmental approval.

8. Muskrat Falls is a very large project

At 824 megawatts, Muskrat Falls will be the biggest hydro power generating station in all of Atlantic Canada (next to Churchill Falls), and will be bigger than any of the four stations on the largest project currently under construction in Quebec (640 mw). The four stations of La Romaine in total will have a capacity of 1550 mw, while the total Lower Churchill project will be over 3000 mw. The only other large project in Canada in advanced planning is the Peace River in British Columbia. While this project has a slightly larger capacity than Muskrat Falls, at 900 mw, its energy output per year is smaller, at 4.6 twh (compared to 4.9 at Muskrat). The energy output difference speaks to the high quality of the resource in the Churchill River.

9. Capital Cost and Financing

The estimated capital cost of the project is [6.3] billion. Through Nalcor, financing will be required for 100% of the Muskrat Falls project ($3.0 billion), and 51% of the Labrador Island Link (49% of $2.1 billion). Nalcor's share will be financed through a combination of debt and equity. The Muskrat Falls project will be 100% equity and the Labrador Island Link will be 25% equity and 75% debt. The Maritime Link ($1.2 billion) will be provided by Emera.

The Governments of NL and NS have applied to the federal government for $375 million in capital assistance for the Maritime Link. Should this assistance be approved the benefit of the financing will be shared 80/20 between Nalcor and
Emera. The NL Government has also requested a loan guarantee for the project from the federal government.

10. Innu Nation Agreements to be Ratified

Two agreements and a MOU have been negotiated and the agreements have been initialed as agreed with the Innu Nation leadership as a basis for proceeding with the lower Churchill project. The MOU between Nalcor and Innu Nation is in place until the Impact and Benefits Agreement ratification occurs. The other two agreements are the Upper Churchill Redress Agreement with the provincial government and the land claims agreement with the provincial government. The Innu Nation has indicated a preference to ratify these agreements together after it finalizes its related negotiations on land claims with the federal government. The provincial government understands this goal and has encouraged the federal government to proceed expeditiously. However, given the compelling reasons for beginning the project in 2011, including the fact that market opportunities could disappear without timely approval, the provincial government is working closely with the Innu Nation to build the basis for timely ratification.

11. Gull Island will be Built as Phase 2

Gull Island generating station will be built as phase 2 of the lower Churchill project with a planned overlap of construction with Muskrat Falls. Although originally slated as phase 1, the negative rulings in May 2010 by the Regie de l’Energie in Quebec caused a reconsideration of the best phasing approach. Potential markets for Gull Island energy include industrial customers in Labrador (either new or existing), or utilities in the Maritime provinces, New England, New York or Ontario. Nalcor will continue with all legal remedies to appeal the Régie’s decision and a team will remain focused on developing business opportunities with potential offtakers, both inside and outside the Province. It is important to note that existing Upper Churchill recall power and future MF power will also be available for Labrador industrial development should it be required.

12. The employment and industrial benefits are significant, especially for Labrador.

The Benefits Strategy for Lower Churchill Construction Projects (Muskrat Falls and Labrador Island Link) ensures that NL will be the primary beneficiary of the Lower Churchill Development by providing full and fair opportunity for NL contractors, service providers, consultants, and suppliers, and first consideration for employment of NL residents – Labrador residents first (once aboriginal commitments have been implemented in accordance with a ratified IBA), and the rest of the province next. As well, all engineering will be conducted in the Province.

Benefits arrangements for the Maritime Link will be in partnership with Nova Scotia. All suppliers will have equal opportunity for procurement. Workers from
both provinces will have first consideration for employment, and engineering can be conducted anywhere in both provinces. This arrangement recognizes the shared risk in the construction of the Maritime Link and that this specific asset will be owned by Emera Inc.

Direct Employment:

Direct employment generated by Phase 1 of the project (Muskrat Falls, Island Link and Maritime Link) will be a total of 10,000 person years of work in the province, the rest of Canada and outside Canada. Out of this total, it is estimated that 8600 person years of direct employment will occur in the province, within which 5400 person years will occur in Labrador. Peak direct employment in the province will be 2700 person years of work in 2013.

Given the size of the project and the demands on the labour force, it is estimated that 6300 person years of the 8600 person years in the province will be filled by provincial residents. Similarly, 2155 person years of the 5400 person years of employment in Labrador will be filled by Labrador residents.

Direct, Indirect and Induced Employment

Direct, indirect and induced employment resulting from Phase 1 of the project in all of Canada will be a total of 47,800 person years of work. Out of this total, it is estimated that 18,400 person years of employment will occur in the province, or an average of 2800 person years per year. In Labrador, total employment of 7500 person years is estimated to occur over the life of the project, or about 1150 per year.

Outside Newfoundland and Labrador

Quebec and Ontario are expected to be the biggest recipients of employment outside of Newfoundland and Labrador, at over 11,000 person years of direct, indirect and induced employment each.

Income and Taxation

During construction of Phase 1, total income to NL labour and business is estimated to be $1.4 billion and the provincial government is expected to receive $210 million in tax revenue.

The benefits are also Canada-wide, with income for Canadian labour and business of over $3.5 billion and tax revenue of $520 million to the Federal Government and $290 million to other provincial governments.

Gull Island – Phase 2 Benefits
Gull Island construction is expected to occur on a phased, overlapping basis with Muskrat Falls, all to be happen over a ten year period. The additional impact of Phase 2 will mean an extra 9700 direct person years of employment in the province as a whole, with 8100 person years of provincial employment occurring within Labrador. A significant amount of the upgrades to transmission will occur in Quebec, so it is expected that 5200 person years of direct employment will occur in Quebec and 1600 person years will occur in Ontario.

In terms of direct, indirect and induced employment, 18,500 person years of employment will occur within the province, with 9900 of that employment occurring within Labrador. The total employment to be created in Canada will be in the order of 76,100 person years.

Phase 2 will mean an extra $1.4 billion in labour and business income within Newfoundland and Labrador plus $210 million in provincial government tax revenue. Canada-wide there will be $5.6 billion in labour and business income, with $880 million in taxes flowing to the federal government and $650 million flowing to other provincial governments, of which $390 million would flow to Quebec.

13. Labrador Receives Major Benefits and Opportunities from this Project

The following beneficial outcomes will accrue to the residents of Labrador: 1) direct, indirect and induced employment during the construction project, as noted above; 2) additional direct and indirect employment when Gull Island is built; 3) additional direct and indirect employment on the operation of these two projects; 4) clarification of land claims with the Innu Nation that will provide certainty for residents and businesses alike, including the establishment of the Mealy Mountains National Park; 5) redress to the Innu Nation for historical impact of the Upper Churchill project; 6) immediate surplus capacity from Muskrat Falls that can be recalled as needed for industrial development in Labrador.

The combined strength of Upper Churchill recall power, surplus Muskrat Falls power and future Gull Island power create a formidable resource for fuelling resource and industrial development in Labrador. While each industrial project is unique (and must sufficiently viable to pay the costs of transmission lines), there is ample power to supply for IOC expansion, new iron ore projects, Voisey’s Bay ovoid and underground mine, the uranium mine, and other projects that may emerge. Such projects may also create economically viable opportunities to link-up adjacent communities.

It must also be noted that electricity rate reductions have already been provided to coastal Labrador communities in the expectation that the lower Churchill project would be developed, demonstrating in advance that the project benefits all residents of Labrador. Under the Rural Deficit Subsidy, the most recent figures
available (2007) indicate there was an $18 million subsidy for isolated coastal Labrador diesel customers to reduce the costs of electricity. In addition, the Northern Strategic Plan contained a rebate program to reduce the rates paid by all coastal Labrador customers (diesel or otherwise) by $1.7 million per year. Finally, the 2006 general rate increase was deferred for isolated diesel communities at a cost of $400,000 per year for the last four years.

The Energy Plan and the Northern Strategic Plan also contain commitments to review the commercial rates in Labrador coastal communities in conjunction with the sanctioning of the Lower Churchill project with a view to a comparable rebate (as noted above) if the project is sanctioned.

The 2007 Energy Plan contained a number of commitments acknowledging that the long term energy future for coastal communities needs continuous attention. One of those commitments was to continue work on feasibility and environmental studies of additional hydroelectric prospects. In particular, there has been an examination of small-scale hydro projects in coastal Labrador as part of a study of alternative energy opportunities. Phase 1 of the study examined 15 locations with potential for small hydro sites. It found there are a number of sites near Charlottetown and Port Hope Simpson that could serve the needs of each community individually. There is one site rated at approx 1.5 – 3.0 MW that could serve both communities. Prospective sites were also identified for Hopedale, Mary’s Harbour and Makkovik. The site at Makkovik was the only hydro potential identified north of Lake Melville suitable for potential development. Nalcor is seeking ($2.5 million) to do a more detailed analysis of these sites and to identify those that could proceed for project level engineering and financial viability assessment.

The Energy Plan also committed to support research and development into wind and/or wind/hydrogen integration for isolated communities. In addition to hydroelectric potential, Phase 1 of the alternative energy study also recommended prefeasibility investigations in Cartwright, Hopedale, Makkovik, and Nain. Nalcor has been developing the wind-hydrogen-diesel technology in Ramea. If successful, this technology has the potential to offset, and perhaps even eliminate reliance on diesel generation in isolated coastal communities. The project has recently transitioned to the demonstration phase.

In general, the lower Churchill hydro projects must be run on an economic basis. The resource on the river is valuable, and it must be developed at the lowest cost possible in order to produce the greatest return. Muskrat Falls is a Labrador resource, but it will be paid for by the ratepayers of the whole province. In that sense it is a provincial asset. Industrial opportunities in Labrador will be facilitated by this power, but the value in the water must not be wasted by giving unrealistically low power rates to attract jobs. There must be an appropriate balance. One of the goals must be to generate the maximum possible revenue
from the power to allow government to use that revenue provide important public services.

14. This project makes NL an environmental leader.

This project fulfills one of the key commitments in the Energy Plan – to replace the Holyrood Generation Station with power from the Lower Churchill. Doing so not only provides the province with stable, renewable power forever, it also eliminates the harmful emissions associated with the Holyrood station – ranked as the 42nd heaviest polluter in Canada.

This project will make our electricity system run on 98% renewable, emission-free energy – a situation few jurisdictions in the world can boast. It is also the most significant measure we can take in the province to reduce our greenhouse gas emissions to the level we would like to attain by 2020. This project will also mean that NL’s renewable energy resources will assist other jurisdictions, Nova Scotia in particular, in meeting their renewable energy and emission targets.

15. The Project Arrangements are Open for Public Scrutiny

There will be debate in the House of Assembly, in the media and other fora. We welcome scrutiny from independent analysts.

16. Next Steps

- Approval of New Dawn
- Environmental Assessment approvals
- Legal agreement with Emera
- EPCM contract for Muskrat Falls and Labrador Island Link
- Register and undertake environmental assessment for Maritime Link
- Project financing arrangements
- Project Sanction

Department of Natural Resources
November 14, 2010
Newfoundland and Labrador Hydro: Island Regulated Revenue Requirements

- Thermal Power Future (excluding CO₂ costs)
- Long Term Superior Value Associated with Labrador Option
- Renewable Energy Future

- Isolated Island
- Muskrat Falls with Labrador Interconnection
Information Note
Natural Resources

Title: Labrador Issues with respect to the Lower Churchill Development

Issue: To highlight a number of key Labrador Issues with respect to the Lower Churchill Development and demonstrate how the announcement of Phase I will impact those issues.

Background and Current Status:

• The following outlines how the Phase I announcement will address key Labrador issues related to the Lower Churchill Development:

Labrador Benefits

• The Benefits Strategy for Lower Churchill Construction Projects (Muskrat Falls and Labrador Island Link) ensures that NL will be the primary beneficiary of the Lower Churchill Development. The Strategy will provide full and fair opportunity for NL contractors, service providers, consultants, and suppliers, and first consideration for employment of NL residents. Once aboriginal commitments have been implemented in accordance with a ratified IBA, Labrador residents will receive first consideration, followed by the rest of the province.

Power Rates

• This announcement will have no direct effect on power rates in Labrador. In fact, electricity rate reductions have already been provided to coastal Labrador communities.

• Under the Rural Deficit Subsidy, the most recent figures available (2007) indicate there was an $18 million subsidy for isolated coastal Labrador diesel customers to reduce the costs of electricity. In addition, the Northern Strategic Plan contained a rebate program to reduce the rates paid by all coastal Labrador customers (diesel or otherwise) by $1.7 million per year. Finally, the 2006 general rate increase was deferred for isolated diesel communities at a cost of $400,000 per year for the last four years.

• The Energy Plan and the Northern Strategic Plan also contain commitments to review the commercial rates in Labrador coastal communities in conjunction with the sanctioning of the Lower Churchill project.

Industrial Development

• The combined Upper Churchill recall, Muskrat Falls and future Gull Island power will provide an opportunity to facilitate industrial development in Labrador. Such projects could include: IOC expansion, new iron ore projects, Voisey’s Bay underground mine, uranium development, and other projects that may emerge. These projects may also create economically viable opportunities to link-up adjacent communities.

Isolated Diesel Communities

• The plan for isolated communities has not changed. These communities will continue to be served by diesel generation as long as it is the most feasible and cost-effective way to provide reliable electrical service. Government continues to explore ways to reduce or eliminate these communities’ reliance on diesel generation.

• The 2007 Energy Plan contained a number of commitments acknowledging that the long term energy future for coastal communities needs continuous attention. One of
those commitments was to continue work on feasibility and environmental studies of additional hydroelectric prospects. In particular, there has been an examination of small-scale hydro projects in coastal Labrador as part of a study of alternative energy opportunities. Phase 1 of the study examined 15 locations with potential for small hydro sites. Nalcor and Natural Resources have developed a $2.5 million proposal to do a more detailed analysis of the sites identified in Phase I and to identify those that could proceed for project level engineering and financial viability assessment.

- The Energy Plan also committed to support research and development into wind and/or wind/hydrogen integration for isolated communities. In addition to hydroelectric potential, Phase 1 of the alternative energy study also recommended prefeasibility investigations in Cartwright, Hopedale, Makkovik, and Nain. Nalcor and Natural Resources are developing a proposal to complete a more detailed analysis of the wind potential in these communities. Nalcor has also been developing the wind-hydrogen-diesel technology in Ramea. If successful, this technology has the potential to offset, and perhaps even eliminate reliance on diesel generation in isolated coastal communities.

Transmission to Coast
- Based on current levels of power use, interconnection of the coastal communities is cost-prohibitive compared to diesel power. The most recent study of the cost to interconnect customers on the Labrador coast was undertaken in 2001 and the estimated total capital cost (in 2006 dollars) to interconnect the entire Labrador coast from Happy Valley - Goose Bay was $362 million. (North coast - $141 million; South coast - $221 million). Based on approximately 3,500 customers, this equates to roughly $100,000 per customer.
- In the event of a major industrial development or expansion of an existing development requiring a transmission line, the economics of connecting adjacent coastal communities in Labrador would improve. Government has taken significant action to reduce energy costs of non-connected communities and identify alternative sources of power.

Export of Labrador Resources
- The completion of Phase 1 of the Project will be a great enabler for future opportunities in Labrador and will greatly improve Labrador’s ability to attract industrial development in the region. Phase 2 will be targeted at export opportunities and large scale mining or heavy industrial developments. These developments could be in existing industries, including the expansion of iron ore projects in Labrador West, underground expansion of the Voisey’s Bay nickel mine and development of the Aurora energy uranium mine or by new, yet to be identified power-intensive industries that may be interested in bringing business to the province as a result of the availability of predictably priced electricity from the Project.

Prepared by: Rob McGrath (DNR)
Approved by:

24 11 2010
Information Note
Natural Resources

Title: Environmental Assessment of the various components of the Lower Churchill Development.

Issue: To provide the current status of the environmental assessment process for the Lower Churchill Hydroelectric Generation Project, the Labrador-Island Transmission Link, and the Maritime Link.

Background and Current Status:

Lower Churchill Hydroelectric Generation Project
- The project was registered in November, 2006 and contemplates the construction of generating facilities at Gull Island and Muskrat Falls as well as associated transmission. Nalcor Energy subsequently filed an Environmental Impact Statement (EIS) according to guidelines determined by a review panel appointed jointly by Canada and Newfoundland and Labrador (the Joint Review Panel or JRP).
- The JRP is currently reviewing the EIS for sufficiency to proceed to public hearings. As part of this process, the JRP has sought supplementary information from Nalcor in multiple rounds which Nalcor has responded to in a timely fashion.
- At such time as the JRP determines sufficiency of the EIS, it will provide a 45 day notice of the commencement of public hearings, which could start as early as January 2011. There are no mandatory timelines for the completion of hearings or for the JRP to submit its report to Ministers. Upon receipt of the final report, Ministers endeavour to coordinate a federal/provincial response within 60 days.
- In light of the subsequent agreement between Nalcor and Emera for development of the Muskrat Falls portion of the project first, the JRP has issued another series of information requests to Nalcor. ENVC has been advised by Nalcor that it will make every effort to answer questions on or before January 10, 2011.

Labrador-Island Transmission Link
- The project was registered in February, 2009 and contemplates the construction and operation of a transmission line and associated infrastructure within and between Labrador and the Island of Newfoundland.
- The initial proposal also considered the possibility of a transmission route through portions of Gros Morne National Park on the Northern Peninsula but Nalcor subsequently filed a revised undertaking which removed this from consideration. The route now under consideration does not impact on Gros Morne National Park.
- CEEA and ENVC are working collaboratively on a joint review process to coordinate federal and provincial jurisdiction. The draft terms of reference for the Environmental Impact Study and Comprehensive Study have been submitted to aboriginal groups for review and then the general public. After review by ministers of any input, the Terms of Reference will be released to Nalcor so it can submit its documents. There will be no panel review in this process. The process is expected to take more than a year to complete.
- Nalcor has indicated that its work on the EIS would satisfy both the provincial and federal components of the EA process.
**Maritime Link**

- The Maritime Link consists of various transmission lines and other components in support of a submarine cable across the Cabot Strait from Cape Ray, Newfoundland and Labrador to Lingan, Nova Scotia (approximately 180 km).
- Maritime Link has not yet been registered for an Environmental Assessment.

**Action Being Taken:**

- Nalcor continues to work within the EA framework by responding to information requests of the Joint Review Panel until a finding of sufficiency to proceed to public hearings is made by the panel.
- DNR is monitoring various processes and participating as required.
- Preliminary work on the preparation of a regulatory strategy, consideration of design options and discussions on the potential ownership structure are underway with Emera.

**Prepared/Approved by:** Rob Bates / Rob McGrath, DNR

**Approved by:**

**Ministerial Approval:**

24/11/2010
Title: Economic Benefits of the Lower Churchill development project.

Issue: To provide a summary of the economic benefits of the Lower Churchill development project including the Muskrat Falls hydroelectric generation project, the Labrador-Island Transmission Link, and the Maritime Link.

Background and Current Status:
- As part of its analysis of the development opportunity for Muskrat Falls, Nalcor Energy engaged Strategic Concepts, Inc. (SCI) to run an economic impact analysis for the project encompassing employment, income, and taxation impacts. The analysis included numerous geographic regions (NL - Island and Labrador, NS, NB, ON, PEI, QC, Rest of Canada, and Canada) and covered a 40 year time frame from 2010 to 2049.
- The SCI analysis covered two phases of construction (Muskrat Falls from 2010 to 2017 as phase I and Gull Island from 2013 to 2022 as phase II) plus an operations phase from 2017 to 2049.

Muskrat Falls-Island Link-Maritime Link
- Total NL employment of 18,400 person years with peak direct employment of 2,700 in 2013. This includes 7,500 person years of employment within Labrador itself. NL is expected to receive over 62% of direct employment in Phase I.
- Total Canadian employment is 48,000 person years and Quebec and Ontario see over 11,000 person years each (primarily in indirect and induced employment.
- Total income to NL labour and business of $1.4 billion (approximately $220 million per year).
- Canada-wide income to labour and business of $3.5 billion (approximately $540 million per year) of which Quebec and Ontario are the biggest recipients at about $120 million per year each.
- Total tax revenue to the NL government of over $210 million and over $520 million in taxes to the Federal Government. Approximately $290 million in taxes will be received by other provincial governments.

Gull Island
- Total NL employment of 18,500 person years with peak direct employment of 2,100 in 2017. This includes over 9,900 person years of employment within Labrador itself. NL is expected to receive over 55% of direct employment in Phase II.
- Total Canadian employment is 76,000 person years with Quebec being largest recipient at approximately 31,000 person years.
- Total income to NL labour and business of $1.4 billion (approximately $150 million per year).
- Canada-wide income to labour and business of $5.6 billion (over $620 million per year). Quebec is the biggest recipient at about $2.3 billion or over $520 million per year.
- Total tax revenue to the NL government of $210 million and over $880 million in taxes to the Federal Government. Approximately $650 million in taxes will be received by
other provincial governments, including approximately $390 million to Government of Quebec.

**Operations**
- Average NL employment of over 400 persons per year including 120 direct, full-time jobs. A significant proportion of this direct employment will be in Labrador.

**Action Being Taken:**
- This is note is for information purposes only.

**Prepared/Approved by:** Rob Bates / Rob McGrath, DNR
**Approved by:**

**Ministerial Approval:**

7 12 2010
Information Note
Department of Natural Resources

Title: Current status of Phase 1 of the Lower Churchill Development

Issue: To provide a summary of the current status of Phase 1 of the Lower Churchill Development for the upcoming Council of Atlantic Premiers meeting

Background:
- In November 2010, Nalcor Energy and Emera Inc. announced a partnership to develop the first phase of the Lower Churchill Development (LCD) – the 824 Megawatt (MW) Muskrat Falls generating station, transmission link to the Island, and a 180 kilometre (km) sub-sea Maritime Link to Nova Scotia (NS). Emera will invest 20% of project costs and receive 170 MW annually of firm and flexible hydro-electricity for 35 years, with an option for an additional 330 MW. Construction at Gull Island is expected to start several years after Muskrat Falls.
- The completion of Phase 1 will result in the displacement of thermal generation at the Holyrood Generating Station, thereby avoiding approximately 96 million tonnes of emissions by 2065. Upon completion of Phase 1, NL’s electricity system will be 98 per cent emission free.
- The following provides a summary of the current status of the project as well as key events that have taken place since the announcement.

Environmental Assessment Processes
- Following the determination that the proponent’s (Nalcor’s) Environmental Impact Statement (EIS) and supplementary information on the Lower Churchill Generation Project was sufficient to proceed to the next stage of the environmental assessment (EA) process, public hearings commenced on March 3, 2011 in Happy Valley-Goose Bay. The public hearings concluded on April 15, 2011, and the Joint Review Panel’s Report is due to Ministers by July 15, 2011. There is no set timeline for Ministers’ decision which is dependent on federal and provincial cabinet approval processes and aboriginal consultation.
- On March 1, 2011, Nunatsiavut filed for an injunction to prevent the continuation of public hearings for the environmental assessment process; however, the application was denied in the Supreme Court of Newfoundland and Labrador on March 25, 2011. Nunatsiavut’s asserted but unproven land claim includes lands that will be impacted by the Lower Churchill development. The land claim, however, has not been accepted by NL or the federal government.
- The Labrador – Island Transmission Link was registered for EA on February 2, 2009 and final guidelines were issued for the EIS on May 3, 2011.

Innu Nation Land Claim Agreement
- On March 21, 2011, financial terms to settle the Innu land claim were reached in Ottawa by the Innu Nation and the Federal Government, clearing the way for conclusion of an Agreement in Principle (AIP) on the land claim. Legal drafting of the AIP is expected to be concluded by May 20. Preparations are currently underway to bring the agreements negotiated under the New Dawn Agreement – the AIP, Lower Churchill Impacts and Benefits Agreement and Upper Churchill Redress Agreement - to the Innu membership for a ratification vote in June 2011.

Federal Support
- On February 18, 2011, NL and NS were notified by Public Private Partnership Canada (PPP Canada) that they were unable to undertake a detailed assessment of the P3 Fund proposal for the Atlantic Provinces Renewable Energy Interconnect (APREI) and therefore, would not be providing funding for this development at this time. Parties to the application are reviewing the response from PPP Canada with a view to re-applying for P3 funding.
In February 2011, officials of Nalcor and NL began working directly with the federal government with respect to federal support for Phase 1 of the LCD, in the form of a loan guarantee.

Two days after the dissolution of Parliament, on March 28, 2011, Conservative Leader Stephen Harper announced at a campaign rally in St. John's that, "...a re-elected Conservative government would provide a loan guarantee or equivalent financial support for the Lower Churchill Hydro project." This commitment was reiterated in the Conservative Party's policy platform document Here For Canada and forms part of a larger national program that will support clean energy projects that: have national or regional significance; have economic and financial merit, and; will significantly reduce greenhouse gas emissions. This was reiterated in the Prime Minister's April 25 response to Premier Dunderdale's letter of April 7, 2011.

Quebec Reaction to Federal Support

Following Stephen Harper’s commitment of a loan guarantee for the Development, Bloc Quebecois leader Gilles Duceppe stated that Stephen Harper had just given Quebec, "a slap in the face" and that the commitment was, “a direct attack on the interests of Quebec.” Quebec Premier Jean Charest called the commitment “astonishing” and claimed that Harper was, “changing the market rules” for hydroelectricity.

On April 6, 2011, the Quebec legislature unanimously passed a motion condemning the federal loan guarantee. The province's Intergovernmental Affairs minister stated that the support constituted “unequal treatment” because Hydro-Quebec built its own hydro-electric network without federal assistance.

Regie de l’Energie Decision

On April 8, 2011, the Regie de l’Energie, Quebec’s energy regulator, upheld its 2010 decision to deny transmission access across the Quebec transmission system to NL. The Regie de l’Energie had previously ruled against complaints submitted by Nalcor in response to an inability to access Quebec’s infrastructure under Quebec’s open access rules.

Nalcor and NL are currently considering options including seeking a judicial review or pursuing action in the United States the Federal Energy Regulatory Commission (FERC).

Nova Scotia Clean Energy Act Amendment

On April 8, 2011, Nova Scotia tabled an amendment to its Clean Energy Act to allow hydro-power from Muskrat Falls to count toward a legally binding provincial renewable energy target of 40% renewable electricity by 2020.

Prepared / Approved by: Rob Bates, Rob McGrath in consultation with IGAS / Paul Scott
Ministerial Approval:  Minister Skinner and Minister Denine
May 6, 2011
Department of Natural Resources
Phase 1 of the Lower Churchill Development

Overview: In November 2010, Nalcor Energy and Emera Inc. announced a partnership to develop the first phase of the Lower Churchill Development (LCD) – the 824 Megawatt (MW) Muskrat Falls generating station, transmission link to the Island, and a 180 kilometre (km) sub-sea Maritime Link to Nova Scotia (NS). The following will provide a background and the current status of Phase 1 of the Lower Churchill Development.

Background
National Context
Federal Support
- On February 18, 2011, NL and NS were notified by Public Private Partnership Canada (PPP Canada) that they were unable to undertake a detailed assessment of the P3 Fund proposal for the Atlantic Provinces Renewable Energy Interconnect (APREI) and therefore, would not be providing funding for this development at this time. Parties to the application are reviewing the response from PPP Canada with a view to re-applying for P3 funding.
- In February 2011, officials of Nalcor and NL began working directly with the federal government with respect to federal support for Phase 1 of the LCD, in the form of a loan guarantee.
- Two days after the dissolution of Parliament, on March 28, 2011, Conservative Leader Stephen Harper announced at a campaign rally in St. John’s that, “...a re-elected Conservative government would provide a loan guarantee or equivalent financial support for the Lower Churchill Hydro project.” This commitment was reiterated in the Conservative Party’s policy platform document Here For Canada and forms part of a larger national program that will support clean energy projects that: have national or regional significance; have economic and financial merit, and; will significantly reduce greenhouse gas emissions. This was reiterated in the Prime Minister’s April 25 response to Premier Dunderdale’s letter of April 7, 2011.
- The LCD was not mentioned in the federal budget; however, the election promise to reduce borrowing costs as the project moves ahead was repeated in the federal throne speech on June 7, 2011.
Quebec Reaction to Federal Support
- Following Stephen Harper’s commitment of a loan guarantee for the Development, Bloc Quebecois leader Gilles Duceppe stated that Stephen Harper had just given Quebec, “a slap in the face” and that the commitment was, “a direct attack on the interests of Quebec.” Quebec Premier Jean Charest called the commitment “astonishing” and claimed that Harper was, “changing the market rules” for hydroelectricity.
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Regie de l’Energie Decision
- On April 8, 2011, the Regie de l’Energie, Quebec’s energy regulator, upheld its 2010 decision to deny transmission access across the Quebec transmission system to NL. The Regie de l’Energie had previously ruled against complaints submitted by Nalcor in response to an inability to access Quebec’s infrastructure under Quebec’s open access rules. Nalcor and NL are currently considering options including seeking a judicial review or pursuing action in the United States the Federal Energy Regulatory Commission (FERC) in response to Regie decision.
Nova Scotia Clean Energy Act Amendment
• On April 8, 2011, Nova Scotia tabled an amendment to its *Clean Energy Act* to allow hydro-power from Muskrat Falls to count toward a legally binding provincial renewable energy target of 40% renewable electricity by 2020.

**Current NL Situation**

- On March 25, 2011 Nalcor Energy announced it awarded SNC-Lavalin the EPCM contract for services for components of Phase 1 of the Lower Churchill Project (LCP). Engineering and procurement for the Project will be performed primarily from SNC-Lavalin’s office in St. John’s. As the Project progresses, construction management will occur predominantly at the Muskrat Falls generating site in Labrador, as well as at various transmission location in Labrador and on the Island.

**Environmental Assessment Processes**

- Following the determination that the proponent’s (Nalcor’s) Environmental Impact Statement (EIS) and supplementary information on the Lower Churchill Generation Project was sufficient to proceed to the next stage of the environmental assessment (EA) process, public hearings commenced on March 3, 2011 in Happy Valley-Goose Bay. The public hearings concluded on April 15, 2011, and the Joint Review Panel’s Report is due to Ministers by July 15, 2011. There is no set timeline for Ministers’ decision which is dependent on federal and provincial cabinet approval processes and aboriginal consultation.
- On March 1, 2011, Nunatukavut filed for an injunction to prevent the continuation of public hearings for the environmental assessment process; however, the application was denied in the Supreme Court of Newfoundland and Labrador on March 25, 2011. Nunatukavut’s land claim includes lands that will be impacted by the Lower Churchill development. The land claim, however, has not been accepted by NL or the federal government.
- The Labrador – Island Transmission Link was registered for EA on February 2, 2009 and final guidelines were issued for the EIS on May 3, 2011.
- The Maritime Link is expected to be submitted for Environmental Assessment in Fall 2011.

**Innu Nation Land Claim Agreement**

- On March 21, 2011, financial terms to settle the Innu land claim were reached in Ottawa by the Innu Nation and the Federal Government, clearing the way for conclusion of an Agreement in Principle (AIP) on the land claim. [The AIP was initialled on June 14, 2011 clearing the way for the June 30, 2011 Innu ratification vote.]

Prepared / Approved by: Rob Bates, Rob McGrath, Susan Brewer /

Ministerial Approval:

16.6.2011
NL Background Note

Issue: To provide additional information on Muskrat Falls

National Context:
• In November 2010, Nalcor Energy and Emera Inc. announced a partnership to develop the first phase of the Lower Churchill Project – the 824 Megawatt (MW) Muskrat Falls generating station, an 1,100 km transmission link to the Island, and a 180 kilometre (km) sub-sea Maritime Link to Nova Scotia (NS).

Federal Support
• In February 2011, officials of Nalcor and NL began working directly with the federal government with respect to a loan guarantee.
• Two days after the dissolution of Parliament, on March 28, 2011, Conservative Leader Stephen Harper announced at a campaign rally in St. John’s that, “…a re-elected Conservative government would provide a loan guarantee or equivalent financial support for the Lower Churchill Hydro project.” This commitment was reiterated in the Conservative Party’s policy platform document Here For Canada and forms part of a larger national program that will support clean energy projects that: have national or regional significance; have economic and financial merit; and, will significantly reduce greenhouse gas emissions. This was reiterated in the Prime Minister’s April 25 response to Premier Dunderdale’s letter of April 7, 2011.
• Muskrat Falls was not mentioned in the federal budget; however, the election commitment to reduce borrowing costs as the project moves ahead was repeated in the federal throne speech on June 3, 2011. NRCan has been assigned as lead and NL is seeking fulfillment by the end of August.
• On June 14, 2011, Minister Skinner convened a conference call with newly appointed Natural Resources Minister Joe Oliver. At that time, Minister Oliver indicated he had not been briefed on the Loan Guarantee but agreed that both Ministers would discuss the issue at the upcoming Energy and Mines Ministers Conference (EMMC) in mid-July.

Benefits
• The Lower Churchill Development has significant economic benefits for other parts of Canada. For example, the Muskrat Falls Phase alone will provide for a total employment of 11,520 person years (PY) for an average annual employed workforce of 1770 persons and 11,380 PY of employment for an average annual employed workforce of 1750 in ON and QC respectively. This phase will also provide 730M in total income to labor and businesses in ON and 730M to QC labor and business. Taxes to the ON and QC governments are estimated to amount to 100M and 117M respectively. The entire project promises a total employment of 47,480 PY, an average employed workforce of 7360 persons, $3.6B in total business and labor income, and $525M in taxes to the federal government.

Regie de l’Energie Decision
• On April 8, 2011, the Regie de l’Energie, Quebec’s energy regulator, upheld its 2010 decision to deny transmission access across the Quebec transmission system to NL. The Regie de l’Energie had previously ruled against complaints submitted by Nalcor in response to an inability to access Quebec’s infrastructure under Quebec’s open access rules. Nalcor and NL are
currently considering options including seeking a judicial review or pursuing action in the United States the Federal Energy Regulatory Commission in response to the Regie decision.

**Nova Scotia Clean Energy Act Amendment**

- On April 8, 2011, Nova Scotia tabled an amendment to its *Clean Energy Act* to allow hydro-power from Muskrat Falls to count toward a legally binding provincial renewable energy target of 40% renewable electricity by 2020. On June 27, 2011, NS released proposed amendments to its renewable electricity regulations including an amendment stating that power from “Lower Churchill project” will account for “about 20 percent” of the 2020 target.

**Provincial Context:**

- On March 25, 2011 Nalcor Energy announced it awarded SNC-Lavalin the EPCM contract for services for components of the development of Muskrat Falls. Engineering and procurement for the Project will be performed primarily from SNC-Lavalin’s office in St. John’s. As the Project progresses, construction management will occur predominantly at the Muskrat Falls generating site in Labrador, as well as at various transmission location in Labrador and on the Island.

**Environmental Assessment Processes**

- Following the determination that the proponent’s (Nalcor’s) Environmental Impact Statement (EIS) and supplementary information on the Lower Churchill Generation Project was sufficient to proceed to the next stage of the environmental assessment (EA) process, public hearings commenced on March 3, 2011 in Happy Valley-Goose Bay. The public hearings concluded on April 15, 2011, and the Joint Review Panel’s Report was due to Ministers on July 15, 2011. The Panel has notified Ministers, however, that the report will be delayed until on or before August 30, 2011. There is no set timeline for Ministers’ decision which is dependent on federal and provincial cabinet approval processes and aboriginal consultation.

- On March 1, 2011, Nunatukavut filed for an injunction to prevent the continuation of public hearings for the environmental assessment process; however, the application was denied in the Supreme Court of Newfoundland and Labrador on March 25, 2011. Nunatukavut’s land claim includes lands that will be impacted by the Lower Churchill development. The land claim, however, has not been accepted by NL or the federal government.

- The Labrador – Island Transmission Link was registered for EA on February 2, 2009 and final guidelines were issued for the EIS on May 3, 2011.

- The Maritime Link is expected to be submitted for Environmental Assessment in Fall 2011.

**Innu Nation Land Claim Agreement**

- On March 21, 2011, financial terms to settle the Innu land claim were reached in Ottawa by the Innu Nation and the Federal Government, clearing the way for conclusion of an Agreement in Principle (AIP) on the land claim. The AIP was initialled on June 14, 2011.

- On June 30, 2011, members of the Innu Nation overwhelmingly voted in favour of the AIP, the Lower Churchill Impacts and Benefits Agreement and Upper Churchill Redress Agreement. Support reached 96 percent in Natuashish and 84 percent in Sheshatshiu.

Prepared / Approved by: Rob Bates, Rob McGrath, Susan Brewer / Charles Bown
Ministerial Approval: Minister Skinner
14 07 2011
Briefing Note
Department of Natural Resources

Title: Outcomes from NEG/ECP related to Lower Churchill Project.

Issue: To provide background information on the discussions and messaging that derived from NEG-ECP related to the Lower Churchill Project

Background and Current Status:

- The 35th annual NEG-ECP was held in Halifax, NS from July 10-12, 2011. Nalcor Energy President and CEO Ed Martin and Emera Inc. President and CEO Chris Huskilson presented on the Muskrat Falls development.
- At the meeting, Governors and Premiers noted challenges, including investments and transmission access, to enable the region to maximize its sales in the US marketplace. Specifically:
  - NB Premier David Alward said the interconnections between NB and NS would have to be strengthened in order to handle additional capacity and that NB would need to look at improving its linkages with QC;
  - NS Premier Darrell Dexter said the Atlantic premiers were aware of the need to improve transmission systems in order to facilitate the development of the region’s clean energy resources;
  - Vermont Governor Peter Shumlin said transmission challenges will be the biggest stumbling block to exporting energy to the New England states and emphasized that New England needs as much cheap electricity as it can get from both Labrador and Quebec;
  - Connecticut Governor Dannel Malloy said there needs to be more open discussion of big electricity projects in the region and further added that pressure is building in the US to satisfy renewable energy needs locally rather than wait for Canadian sources of hydroelectricity.
- Following the meeting, Premier Dunderdale noted that the partnership between Nalcor and Emera was of “great interest” to the Governors and Premiers and that “…all eyes are on Newfoundland and Labrador as we proceed to develop the greatest remaining undeveloped clean hydro power source in North America.”
- In response to some Governors feeling there has been a lack of communication on the issue, Premier Dunderdale stated that they (Governors) are mainly new at their positions, and that Government and Nalcor will follow-up with Governors to arrange a meeting focusing solely on Muskrat Falls.
- Premier Dunderdale also emphasized that the main priority for developing Muskrat Falls, “is to meet the electricity demands of our own province and to stabilize rates over the long term.”
- The Premier also highlighted that the enormous benefits of this Project are being maximized by bringing excess power to markets outside NL in both Canada and the United States.
• With respect to the difficulties associated with gaining access to Quebec's transmission system, Premier Dunderdale said, "The development of the Lower Churchill has quite frankly been a very frustrating exercise for the people of Newfoundland and Labrador ... But we will not be held hostage in a region of the country."

Action Being Taken:
• None. For information purposes only.

Prepared / Approved by: Beverley Rose, Rob McGrath /
7/12/11
The Lower Churchill Project consists of two proposed installations, Gull Island and Muskrat Falls. The combined capacity of both facilities will be 3,074 MW, providing almost 17 terawatt hours of electricity per year.

Extensive pre-feasibility work, such as the progression of the environmental assessment process, finalization of a Water Management Agreement; negotiations for an Impacts and Benefits Agreement (IBA) with Innu Nation of Labrador; development of a financing strategy; as well as extensive engineering studies and field work have been undertaken.

The Lower Churchill Project will be developed in two phases beginning with Muskrat Falls. The Gull Island Project will proceed several years after Muskrat Falls.

The Muskrat Falls Project will include:

A. Muskrat Falls Generating Facility
   • 824 MW generating facility
   • Two HVac transmission lines connecting to Churchill Falls

B. Labrador-Island Transmission Link (~1,100 km)
   • Labrador (900 MW) Converter Station (ac/dc)
   • Overhead HVdc transmission line from Muskrat Falls to Strait of Belle Isle
   • Submarine cables across the Strait of Belle Isle (30 km)
   • Overhead HVdc transmission line from the Strait of Belle Isle to Soldiers Pond
   • Soldiers Pond (900 MW) Converter Station (dc/ac)
   • Electrode sites in Labrador and Newfoundland

C. Maritime Transmission Link from the Island of Newfoundland to Nova Scotia
   • Overhead HVac transmission connecting to the Island transmission grid
   • Bottom Brook (500 MW) Converter Station (ac/dc)
   • Overhead HVdc transmission from Bottom Brook to Cape Ray
   • Submarine cables across the Cabot Strait to Lingan, Nova Scotia (180 km)
   • Cape Breton (500 MW) Converter Station (dc/ac) tying into the existing Nova Scotia transmission grid.

The development of the Lower Churchill Project is consistent with commitments made in the Government of Newfoundland and Labrador’s Energy Plan which states that the development of the Lower Churchill Project must be considered in the context of Nalcor’s broader Integrated Resource Planning initiatives. This assessment has been completed and Nalcor’s subsidiary, Newfoundland and Labrador Hydro (Hydro), has submitted a Generation Planning Issues Report to the Board of Commissioners of Public Utilities.
The report signals that a generation planning decision must be made by the end of 2010 if the appropriate planning, approvals and construction can take place to meet anticipated demand. Hydro has evaluated all practical supply options for generation sources to meet the Island’s long-term electricity needs and it has determined that Muskrat Falls, with a transmission link to the Island, provides the least cost and most environmentally-friendly solution to meet this need.

The Energy Plan also states that, if a decision is made to proceed with the Lower Churchill Project then Holyrood oil-fired generation will be replaced with electricity from this 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 Muskrat Falls will meet the energy requirements for both Labrador and the Island and also provide sufficient capacity for future industrial developments in Labrador and throughout the province. However, the power and energy of generation at Muskrat Falls is initially greater than what is required for the domestic market and the related surplus presents an opportunity for Nalcor to export power.

To monetize the value of the surplus power, Nalcor Energy has partnered with Emera, a publicly traded entity based in Nova Scotia which is the parent company of Nova Scotia Power, Bangor Hydro-Electric and Maine and Maritimes. Nalcor and Emera have reached an agreement that includes equity investments by Emera in the Maritime Link and the Labrador-Island Link, provision of power to Nova Scotia Power, construction of a Maritime Transmission Link between provinces and assignment of transmission rights in the Maritime Provinces and New England to Nalcor. This agreement will generate value for both companies and builds on Nalcor's existing relationship with Emera for the marketing of a portion of recall power from the Upper Churchill in the United States.

This development of Muskrat Falls is financially attractive, generates a positive rate of return and ensures long-term price stability. An agreement with Emera for transmission access in Nova Scotia, New Brunswick and through to New England and the sale of additional power to export markets, further enhances the viability of the development and makes this approach the most economic solution over time. It also creates further export opportunity in the future for the other significant renewable hydro and wind resources throughout Newfoundland and Labrador.
Muskrat Falls
Key Messages

The development of Muskrat Falls is a mega-project for the entire country. Contrary to claims that this project is small and not feasible, it is the singular, largest hydroelectric generation project in the offing in the county – bigger than each station of the four-station La Romaine project in Quebec and bigger in energy output per year than the Peace River project in British Columbia.

The development of Muskrat Falls is a crucial step in fully developing the entire Lower Churchill Project and further solidifies Newfoundland and Labrador’s position as an energy warehouse and places us amongst the world’s energy superpowers.

Our Energy Plan was clear that we would seek long-term stability for the ratepayers of Newfoundland and Labrador and acquire a secure and environmentally friendly source of power. This project accomplishes this and while there will be an increase in rates initially, it will produce the long-term stability we undertook to acquire and avoid the volatility of oil-reliant power, such is Holyrood, which was facing increased rates for the long-term.

If we maintain the status quo of dirty power generated through bunker ‘c’ oil at Holyrood rates are going to go up, and they will continue to rise long into the foreseeable future. Rates are going to rise until we bring on the clean energy associated with Muskrat Falls.

As a result of this agreement, Newfoundland and Labrador will have an electricity system that will be greater than 98% carbon free which far exceeds any national or international standard and is supplied by a secure and reliable source.
This project provides our province with access to important energy markets in Atlantic Canada, Maine and New England and importantly avoids the stranglehold inflicted upon us until now by Hydro Quebec.

The establishment of a Maritime Link will provide Nalcor with expertise in bringing the much needed power of the Churchill River to the export markets of North America. As a result, we will have established relationships and markets along with the infrastructure to do so and we will be ready for the completion of Gull Island and return of the Upper Churchill.

Total direct, indirect and induced employment in Newfoundland and Labrador is estimated to be 18,400 person years.

Peak direct employment in Newfoundland and Labrador will be approximately 2,700 people in 2013.

After construction is complete, Newfoundland and Labrador employment will continue with an estimated 120 direct full-time jobs.

More than 7,500 person-years of direct, indirect and induced employment will take place in Labrador – an average of 1,150 people per year – throughout the development of Muskrat Falls.

More than 75 per cent of the direct labour for the Muskrat Falls Generation Facility will be undertaken in Labrador.
Title: Muskrat Falls – Summary of Project

Issue: To provide a summary of the Muskrat Falls project for the House of Assembly

Background and Current Status:
- The Lower Churchill Project will be developed in two phases beginning with Muskrat Falls. Gull Island will proceed several years after Muskrat Falls. The Muskrat Falls Project will include:

**Muskrat Falls Generating Facility**
- 824 MW generating facility
- Two HVac transmission lines connecting to Churchill Falls
- Estimated capital cost is $2.9 billion

**Labrador-Island Transmission Link (~1,100 km)**
- Labrador (900 MW) Converter Station (ac/dc)
- Overhead HVdc transmission line from Muskrat Falls to Strait of Belle Isle
- Submarine cables across the Strait of Belle Isle (30 km)
- Overhead HVdc transmission line from Strait of Belle Isle to Soldiers Pond
- Soldiers Pond (900 MW) Converter Station (dc/ac)
- Electrode sites in Labrador and Newfoundland
- Estimated capital cost is $2.1 billion

**Maritime Transmission Link from the Island of Newfoundland to Nova Scotia**
- Overhead HVac transmission connecting to the Island transmission grid
- Bottom Brook (500 MW) Converter Station (ac/dc)
- Overhead HVdc transmission from Bottom Brook to Cape Ray
- Submarine cables across the Cabot Strait to Lingan, Nova Scotia (180 km)
- Cape Breton (500 MW) Converter Station (dc/ac) tying into the existing Nova Scotia transmission grid.
- Estimated capital cost is $1.2 billion

- Nalcor has evaluated all practical supply options for generation sources to meet the Island’s long term electricity needs and has determined that Muskrat Falls with a transmission link to the Island provides the least cost and most environmentally friendly solution to meet the domestic needs of the Island.
- The Muskrat Falls Project will lead to the retirement of the Holyrood generation station which will result in the reduction of green house gas emissions by over one million tonnes annually, eliminate the province’s dependence on the supply of imported fuel and remove future volatility in electricity prices.
- The Muskrat Falls Project will meet the energy requirements of the province and also provide sufficient capacity for future industrial development in Labrador and
throughout the province. Initially, the Project will also produce electricity in excess of what is required domestically.

- After consideration of a number of options (Quebec route, Maritime route, and industrial development in Labrador and on the Island) Nalcor has determined that the Maritime Link is the most effective option to monetize any excess electricity.
- Nalcor has partnered with Emera on an agreement that includes equity investments by Emera in the Maritime Link and the Labrador-Island Link, provision of power to Nova Scotia Power, construction of a Maritime Transmission Link between provinces and assignment of transmission rights in the Maritime provinces and New England to Nalcor.
- The Maritime Link will enable the delivery of non-emitting generating resources in Newfoundland and Labrador, including supply from the Lower Churchill Project, to the Atlantic Canada market, and will further enable the integration of variable/intermittent generation sources such as wind and tidal energy in the region and optimization of existing generating facilities.

Benefits
- Total NL employment of 18,400 person years with peak direct employment of 2,700 in 2013. This includes 7,500 person years of employment within Labrador itself. NL is expected to receive over 62% of direct employment.
- Total Canadian employment is 48,000 person years and Quebec and Ontario see over 11,000 person years each (primarily in indirect and induced employment.
- Total income to NL labour and business of $1.4 billion (approximately $220 million per year).
- Canada-wide income to labour and business of $3.5 billion (approximately $540 million per year) of which Quebec and Ontario are the biggest recipients at about $120 million per year each.
- Total tax revenue to the NL government of $210 million and over $520 million in taxes to the Federal Government. Approximately $290 million in taxes will be received by other provincial governments.

Action Being Taken:
- None, for information purposes only.

Prepared By: Rob McGrath, NR
Approved By:

1 12 2010
Information Note
Natural Resources

Title: Muskrat Falls – Summary of Project

Issue: To provide a summary of the Muskrat Falls project

Background and Current Status:
- The Lower Churchill Project will be developed in two phases beginning with Muskrat Falls. Gull Island will proceed several years after Muskrat Falls. The Muskrat Falls Project will include:

**Muskrat Falls Generating Facility**
- 824 MW generating facility
  - Two HVac transmission lines connecting to Churchill Falls
  - Estimated capital cost is $2.9 billion

**Labrador-Island Transmission Link (≈1,100 km)**
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- Overhead HVdc transmission line from Muskrat Falls to Strait of Belle Isle
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- Overhead HVdc transmission line from Strait of Belle Isle to Soldiers Pond
- Soldiers Pond (900 MW) Converter Station (dc/ac)
- Electrode sites in Labrador and Newfoundland
- Estimated capital cost is $2.1 billion

**Maritime Transmission Link from the Island of Newfoundland to Nova Scotia**
- Overhead HVac transmission connecting to the Island transmission grid
- Bottom Brook (500 MW) Converter Station (ac/dc)
- Overhead HVdc transmission from Bottom Brook to Cape Ray
- Submarine cables across the Cabot Strait to Lingan, Nova Scotia (180 km)
- Cape Breton (500 MW) Converter Station (dc/ac) tying into the existing Nova Scotia transmission grid.
  - Estimated capital cost is $1.2 billion

- Nalcor has evaluated all practical supply options for generation sources to meet the Island’s long term electricity needs and has determined that Muskrat Falls with a transmission link to the Island provides the least cost and most environmentally friendly solution to meet the domestic needs of the Island.
- The Muskrat Falls Project will lead to the retirement of the Holyrood generation station which will result in the reduction of green house gas emissions by over one million tonnes annually, eliminate the province’s dependence on the supply of imported fuel and remove future volatility in electricity prices.
- The Muskrat Falls Project will meet the energy requirements of the province and also provide sufficient capacity for future industrial development in Labrador and throughout the province. Initially, the Project will also produce electricity in excess of what is required domestically.
• After consideration of a number of options (Quebec route, Maritime route, and industrial development in Labrador and on the Island) Nalcor has determined that the Maritime Link is the most effective option to monetize any excess electricity.

• Nalcor has partnered with Emera on an agreement that includes equity investments by Emera in the Maritime Link and the Labrador-Island Link, provision of power to Nova Scotia Power, construction of a Maritime Transmission Link between provinces and assignment of transmission rights in the Maritime provinces and New England to Nalcor.

• The Maritime Link will enable the delivery of non-emitting generating resources in Newfoundland and Labrador, including supply from the Lower Churchill Project, to the Atlantic Canada market, and will further enable the integration of variable/intermittent generation sources such as wind and tidal energy in the region and optimization of existing generating facilities.

Action Being Taken:
• None, for information purposes only.

Prepared By: Rob McGrath, NR
Approved By: Charles Bown

February 3, 2011
Briefing Note
Department of Natural Resources

Title: Labrador survey concerning Muskrat Falls Project
Issue: Analysis of results of a survey of Labrador residents conducted by Labrador MP Todd Russell.

Background and Current Status:
- On December 8, 2010, Labrador M.P., Todd Russell, announced that he would conduct an opinion survey throughout Labrador to gauge Labradorians' opinion on various aspects of the proposed Muskrat Falls hydro project.

Methodology
- The survey contained twelve questions on various aspects of the proposed Muskrat Falls project. Survey forms were mailed to every residential address in Labrador, and were available on-line.
- The survey was well-publicized in both local media (numerous times in five local papers, on radio and thru the OKâlaKatiget Society - the regional, native communication service for the people on the North Coast and the Lake Melville region of Labrador), and online (direct e-mail, listserv messages, and Facebook).
- According to the final report, a total of 285 completed surveys were returned from valid Labrador residents. The 2006 Census indicates that there are 9,255 dwellings in Labrador giving a response rate of approximately 3%.
- The final report also notes that a virtual town hall was held on February 23, 2011 had a total of 2,100 participants, with peak “attendance” of 560 people. Nine of the twelve questions were asked.

Survey results
- The following is a summary of the key findings of the survey:
  - 59 per cent of respondents oppose or strongly oppose the plan compared with 31 per cent who support it and 13 per cent of respondents who weren't quite sure;
  - 95 percent of respondents felt that power from Muskrat Falls should be available in Labrador for residential and commercial customers;
  - 86 percent of respondents do not think that Labradorians will get fair share of the Muskrat Falls project revenue;
  - 88 percent of respondents do not think Labrador will be the primary beneficiary from the project;
  - 83 percent of respondents felt the project would not provide enough benefits to the people of Labrador
  - 79 percent of respondents were concerned about the environmental aspects of the project;
  - 80 percent of respondents felt that Labradorians had not been properly consulted;
  - 84 percent of respondents think a dedicated Labrador development fund should be a condition of a proposed Muskrat Falls project;
• The only question that received anywhere close-to-50/50-split was on the answer to whether or not they support federal funding for transmission lines to Newfoundland or Nova Scotia with 48 per cent responding “no”, and 38 per cent responding “yes”.

• On a regional basis, results showed that overall support for the project was higher in western Labrador than other areas.

Analysis
• The Newfoundland and Labrador Statistics Agency reviewed the report and advised that the methodology used to conduct the survey is unclear, preventing them from commenting definitively on the validity of Mr. Russell’s findings. The objective of the survey, the intent to be a census or sample, the survey frame, margin of error, confidence level, and other important characteristics of a proper survey are not provided either in the report or on Mr. Russell’s website to allow for a proper review.

• As stated, it is unclear if the survey is intended to be a census or a sample. In a census, the aim is to collect information from every household/dwelling in a geographic area such as Labrador. Assuming this was intended to be a census and the frame used was based on the 2006 census dwellings (approximately 9,255 privately occupied dwellings in Labrador) this would equate to approximately a 3% response rate from the mail out. This would be very low leaving out 97% of the dwellings and bringing the validity of the census into question considering the low response rate. If a sample methodology were used then a random sample of households would be contacted based on a defined confidence interval and level of precision rather than contacting every household.

• DNR views a number of the questions contained in the survey as ‘leading’, whereby the phrasing of a question may suggest the desired answer. For example: “Does the proposed Muskrat Falls development provide enough benefits for the people of Labrador?”; “Are you concerned about the environmental impacts of the proposed Muskrat Falls project?”; “Should Muskrat falls power be available in Labrador for residential and commercial customers?”

• On February 17, 2011, in response to Todd Russell’s published results and in an effort to compare the opinion of the province to that of residents of Labrador only, NTV and Telelink conducted a poll that that found 70.7 percent of respondents were in favour of the project, with 5.8 percent not in favour (23.5 percent either had no opinion or were undecided). The sample size was 754 with a margin of error of +/- 3.6 percent 19 times out of 20.

Action Being Taken:
• None. For information purposes only.

Prepared / Approved by: Beverley Rose (in consultation with GNL Statistics Agency) / Paul Scott

3 6 2011
The Lower Churchill: Where do you stand?

On November 18th, 2010, Nalcor and the provincial government announced the terms of a proposed agreement to build a hydro-electric dam at Muskrat Falls. The proposed agreement also calls for the construction of transmission lines from Labrador to Newfoundland and Nova Scotia.

I am conducting this survey in order to find out how people in our region feel about this proposed development of an important Labrador resource. Please take the time to complete and return this survey.

Extra surveys for other members of your household are available from my offices in Happy Valley-Goose Bay, L'anse aux Loups, or Labrador City. The street addresses are on the next page.

You can also request a survey by emailing Russell.T@parl.gc.ca or by phone (toll-free) at 1 (888) 817-2483. Copies are also available on the internet for you to download and print on my website: www.toddruessel.ca

Be assured that your responses and personal information will be kept strictly confidential.

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<table>
<thead>
<tr>
<th>1. Does the proposed Muskrat Falls development provide enough benefit for the people of Labrador?</th>
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<tbody>
<tr>
<td>Yes</td>
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<td>7. Are you satisfied with the proposed employment benefits for Labrador residents?</td>
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<tr>
<td>Yes</td>
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<td>2. Are you concerned about the environmental impacts of the proposed Muskrat Falls project?</td>
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<td>---------------------------------------------------------------</td>
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<tr>
<td>Yes</td>
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<td>8. Do you believe that Labrador will receive a fair share of revenues from Muskrat Falls power sales?</td>
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<td>Yes</td>
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<td>3. Have Labradorians been properly consulted about the proposed Muskrat Falls project?</td>
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<td>Yes</td>
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<tr>
<td>9. Should a dedicated Labrador development fund be a condition of a proposed Muskrat Falls project?</td>
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<td>Yes</td>
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<td>4. Do you feel that you have enough information about the proposed Muskrat Falls project?</td>
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<td>Yes</td>
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<td>10. Do you support federal funding for transmission lines to Newfoundland or Nova Scotia?</td>
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<td>---------------------------------------------------------------</td>
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<tr>
<td>Yes</td>
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<tr>
<td>5. Should Muskrat Falls power be available in Labrador for residential and commercial customers?</td>
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<td>---------------------------------------------------------------</td>
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<tr>
<td>Yes</td>
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<td>11. Do you feel that Labradorians will be the &quot;primary beneficiaries&quot; of the proposed Muskrat Falls project?</td>
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<tr>
<td>Yes</td>
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<tr>
<td>6. Does the proposed agreement respect the Aboriginal rights of Innu, Inuit, and Metis in Labrador?</td>
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<tr>
<td>Yes</td>
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<tr>
<td>12. Do you support or oppose the proposed Muskrat Falls agreement?</td>
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<tr>
<td>Strongly support</td>
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Survey Areas

[Map showing survey areas: North, Central, South, and West]
### MP Todd Russell's Survey results

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<thead>
<tr>
<th>Muskrat Falls Agreement</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
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<td>Feb-11</td>
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<table>
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<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
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<tr>
<td>Q1. Does the Proposed Muskrat Falls development provide enough benefits for the people of Labrador?</td>
<td>8</td>
<td>83</td>
<td>9</td>
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<td>Q2. Are you concerned about the environmental impacts of the proposed Muskrat Falls project?</td>
<td>79</td>
<td>14</td>
<td>7</td>
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<tr>
<td>Q3. Have Labradorians been properly consulted about the proposed Muskrat Falls project?</td>
<td>8</td>
<td>80</td>
<td>12</td>
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<tr>
<td>Q4. Do you feel that you have enough information about the proposed Muskrat Falls project? (not asked during the virtual town hall meeting)</td>
<td>11</td>
<td>84</td>
<td>5</td>
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<tr>
<td>Q5. Should Muskrat Falls power be available in Labrador for residential and commercial customers?</td>
<td>95</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Q6. Does the proposed agreement respect the Aboriginal rights of Innu, Inuit, and Metis in Labrador?</td>
<td>12</td>
<td>68</td>
<td>2</td>
</tr>
<tr>
<td>Q7. Are you satisfied with the proposed employment benefits for Labrador residents?</td>
<td>13</td>
<td>67</td>
<td>20</td>
</tr>
<tr>
<td>Q8. Do you believe that Labrador will receive a fair share of revenues from Muskrat Falls power sales?</td>
<td>7</td>
<td>86</td>
<td>7</td>
</tr>
<tr>
<td>Q9. Should a dedicated Labrador development fund be a condition of a proposed Muskrat Falls project?</td>
<td>84</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Q10. Do you support federal funding for transmission lines to Newfoundland or Nova Scotia?</td>
<td>38</td>
<td>48</td>
<td>14</td>
</tr>
<tr>
<td>Q11. Do you feel that Labradorians will be the “primary beneficiaries” of the proposed Muskrat Falls project?</td>
<td>8</td>
<td>88</td>
<td>5</td>
</tr>
<tr>
<td>Q12. Do you Support or oppose the proposed Muskrat Falls agreement?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strongly support - 12%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Somewhat support - 19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Unsure - 13%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Somewhat oppose - 13%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strongly oppose - 46%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annex C

NTV / Telelink Poll

On February 17, 2011, NTV and Telelink posted the results of their joint poll on the popularity of the Muskrat Falls project after MP Todd Russell published the results of his similar survey earlier that month. The objective was to compare opinion of the whole province to that of the residents of Labrador, only on the proposed development.

The sample size was 754 with a margin of error of +/- 3.6 percent 19 times out of 20.

More than two-thirds of the respondents said that they were in favour of the proposed hydroelectric development at Muskrat Falls. Only 5.8 percent said they were not in favour of the Project. Over 23 percent either had no opinion or were undecided.

In the associated video clip, Mr. Russell dismisses the results of the NTV/Telelink poll by saying that the opinions of Labrador residents should be given more weight than that of the Island residents.

![NTV/TELELINK POLL](http://ntv.ca/video/?p=11359)

Note: pages 15-19 have been redacted in full under section sections 27(1)(a) and 27(2)(a).
Title: Muskrat Falls – Summary

Issue: To provide a summary of the Muskrat Falls phase of the Lower Churchill Project

Background and Current Status:

- The Lower Churchill Project will be developed in two phases beginning with Muskrat Falls. Gull Island will proceed several years after Muskrat Falls. The Muskrat Falls development will include:
  
  **Muskrat Falls Generating Facility**
  - 824 MW generating facility
  - Two HVac transmission lines connecting to Churchill Falls

  **Labrador-Island Transmission Link (−1,100 km)**
  - Labrador (900 MW) Converter Station (ac/dc)
  - Overhead HVdc transmission line from Muskrat Falls to Strait of Belle Isle
  - Submarine cables across the Strait of Belle Isle (30 km)
  - Overhead HVdc transmission line from Strait of Belle Isle to Soldiers Pond
  - Soldiers Pond (900 MW) Converter Station (dc/ac)
  - Electrode sites in Labrador and Newfoundland

  **Maritime Transmission Link from the Island of Newfoundland to Nova Scotia**
  - Overhead HVac transmission connecting to the Island transmission grid
  - Bottom Brook (500 MW) Converter Station (ac/dc)
  - Overhead HVdc transmission from Bottom Brook to Cape Ray
  - Submarine cables across the Cabot Strait to Lingan, Nova Scotia (180 km)
  - Cape Breton (500 MW) Converter Station (dc/ac) tying into the existing Nova Scotia transmission grid.

- Nalcor has evaluated all practical supply options for generation sources to meet the Island's long term electricity needs and has determined that Muskrat Falls with a transmission link to the Island provides the least cost and most environmentally friendly solution to meet the domestic needs of the Island.

- The Muskrat Falls development will lead to the retirement of the Holyrood generation station which will result in the reduction of green house gas emissions by over one million tonnes annually, eliminate the province’s dependence on the supply of imported fuel, and remove future volatility in electricity prices. Once completed, NL will have an electricity system that will be greater than 98 per cent carbon free.

- The Muskrat Falls development will meet the energy requirements of the province and also provide sufficient capacity for future industrial development in Labrador and throughout the province. Initially, the development will also produce electricity in excess of what is required domestically.

- After consideration of a number of options (Quebec route, Maritime route, and industrial development in Labrador and on the Island) Nalcor has determined that the Maritime Link is the most effective option to monetize any excess electricity.

- Nalcor has partnered with Emera on an agreement that includes equity investments by Emera in the Maritime Link and the Labrador-Island Link, provision of power to Nova Scotia Power, construction of a Maritime Transmission Link between provinces and assignment of transmission rights in the Maritime Provinces to Nalcor.
• Transmission access in Nova Scotia, New Brunswick and through to New England enables the sale of additional power to export markets, and also creates further export opportunity in the future for the other significant renewable hydro and wind resources throughout NL.

• Construction of Muskrat Falls will create significant employment, income and taxation benefits for NL, the Atlantic region, and Canada as a whole. For example, it is estimated:
  o 8,600 person years of direct employment in NL, or a total of 18,400 person years (direct, indirect, induced);
  o Peak employment during construction of approximately 2,700 people in 2013;
  o Canada-wide employment will be 47,800 person years during construction;
  o Total income to labour and business for NL will be $1.4 billion or $220 million per year;
  o Over $210 million in taxes will accrue to the Government of NL;
  o Canada-wide income to labour and business will be $3.5 billion or $540 million per year;
  o Over $525 million in taxes to the Government of Canada.

• The estimated capital cost of the project is $6.2 billion - $2.9 billion for Muskrat Falls Generating Facility and Labrador Transmission; $2.1 billion for the Labrador-Island Link and system upgrades; $1.2 million for the Maritime Link.

• NL has requested support from the federal government on two occasions: 1) through an official request for a loan guarantee; and, 2) along with Nova Scotia, through the P3 Canada Fund ($375 million) for funding towards the Maritime Link. To date, no decision has been made on either request.

Action Being Taken:
• None, for information purposes only.

Prepared By: Rob McGrath, NR
Approved By: 

2.2.2011
Dear Minister Coady,

Ed Martin, CEO Nalcor Energy, and Anastasia Qupee, Grand Chief Innu Nation, are pleased to invite you to join them in a flag raising ceremony at the Muskrat Falls site in Labrador on Tuesday, February 16. The flag raising ceremony will include raising the National, Provincial, Labrador, Innu Nation and Nalcor Energy flags at the entrance to the Muskrat Falls site in Labrador.

In addition to the flag raising ceremony, we are offering attendees the opportunity to participate in a tour of the Muskrat Falls generating site.

Event details are as follows:
Muskrat Falls site tour: 10:00 AM to 12:00 PM
Lunch and speeches: 12:00 to 1:30 PM
Flag raising ceremony: 1:30 to 2:30 PM

Please RSVP to Mandy Norris by email at mandynorris@lowerchurchillproject.ca by Monday, February 1 and indicate the activities in which you will be participating. Additional details on the event and safety requirements for the tour will be provided upon confirmation of your attendance.

If you have additional questions, your office can also contact me at koneill@nalcorenergy.com or 737-1427.

Thank you and we look forward to seeing you at this special event next month.

Regards,
Karen O'Neill
Coady, Siobhan

From: BTucker@nalcorenergy.com
Sent: Friday, February 19, 2016 12:09 PM
To: Coady, Siobhan
Subject: MF document
Attachments: Muskrat Falls Proceeding 2016.docx; pic26418.jpg

(See attached file: Muskrat Falls Proceeding 2016.docx)

Good afternoon Minister

Attached is the document regarding Muskrat Falls you requested from Mr. Martin. Since he is currently travelling, he requested I send it along to you.

Thanks and have a great weekend.

Bev

(Embedded image moved to Bev Tucker
file: pic26418.jpg) Executive Assistant to E. J. Martin
President and Chief Executive Officer
Nalcor Energy
t. (709) 737-1278 f. (709) 737-1782
e. btucker@nalcorenergy.com
w. nalcorenergy.com

You owe it to yourself, and your family, to make it home safely every day.
What have you done today so that nobody gets hurt?
Why Muskrat Falls should not be stopped or delayed?

A. We need more power for two key reasons:
   1. to meet the growing demand, a demand which exceeds the ability of our current generating fleet (including Holyrood)
   2. Holyrood generating plant is at the end of its life and Muskrat Falls is needed to replace the power generated from this plant.

B. Muskrat Falls expenditures and commitments to date are a sunk cost and would be a cost under any alternate scenario undertaken to meet future demand.
   1. Any delay would only add to this cost, while additional power sources would still be required
   2. >$4.4 billion in capital plus interest/financing costs are incurred/spent (as of the end of Dec. 2015)
   3. >$6 billion has been committed

C. $5 billion has been borrowed under a Federal Loan Guarantee, providing the Project the ability to secure AAA rated debt, resulting in very favorable long term interest rates. This amount has to be repaid with interest, regardless.
   1. The province has provided an equity completion guarantee to provide whatever funding required above the $5 billion to ensure the Project achieves in-service
   2. If the province does not do so, then the Federal Government has the right to take over the development.

D. Commitments have been made to Emera and Nova Scotia. In general, if Nalcor “downed tools” on the Project, Nalcor is liable to Emera for their losses related to their LIL investment and would also have to provide the Nova Scotia Block of power in another similar fashion or pay applicable damages to get them in the same position.
   (we have similar reciprocal guarantee arrangement from them to ensure they provide their commitments to us, such as transmission access to market)

E. The equity invested in Muskrat Falls is an investment for the province, providing > 8% returns to the province over fifty (50) years, which provides long term cash flow, that stays in province.
   1. When you write a cheque to pay a power bill with MF, the majority of the payment goes to pay off a mortgage on an asset you own;
   2. This is as opposed to paying out the majority of your power bill to outside companies to provide oil and gas to produce your electricity, forever.
3. Provide Newfoundlanders and Labradorians with a return of cash to compensate for an investment of equity
4. > $25 billion in cash return directly to the Province through Nalcor 50 years
5. > $60 billion in benefits and cost savings to Newfoundlanders and Labradorians over 50 years

F. After 35 years, the people of the province own the generating station with no debt attached to it – generating station life span is >100 years, future generations will benefit as well.

G. Reliability of the electrical system increases significantly as we connect the Island of Newfoundland in two separate directions for the first time in history.

H. Muskrat Falls ensures we are self-sufficient in terms of energy/electricity consumption.

I. Increased jobs and economic benefits during a significant downturn in our economy due to oil prices.
   1. Estimated $9 million invested in the NL economy weekly.
   2. At peak over 4,552 NL residents (84%)
   3. 1,291 Labrador residents at peak (Aug)
   4. $835 million in estimated wages to NL workers to date
   5. Over $1B spent with NL businesses since Jan'13

J. We will be > 98% renewable in Newfoundland and Labrador for electricity generation.
   1. Replacing the Holyrood plant with clean, renewable power from Muskrat Falls eliminates our reliance on burning fossil fuels for electricity generation.
   2. The retirement of the Holyrood thermal generation station which will result in the reduction of one million tonnes of GHG emissions annually.
   3. By burning fuel, the Holyrood plant emits a variety of pollutants including: sulphur dioxide, nitrogen dioxide, carbon dioxide and particulate.
   4. Closing Holyrood means that local residents will no longer have to be concerned over the plant and its emissions.

K. Strategic benefits of connecting Island to Mainland both ways – thru Atlantic Canada to U.S. markets and thru Quebec to U.S. and Canadian market breaks the stranglehold Quebec has held over our power development for the first time in history.
   a. Lays the groundwork for development of other energy projects such as other hydro, wind and Gull Island
Thank you

Sent from my BlackBerry 10 smartphone on the Bell network.

Original Message
From: BTucker@nalcorenergy.com
Sent: Friday, February 19, 2016 12:09 PM
To: Coady , Siobhan
Subject: MF document

(See attached file: Muskrat Falls Proceeding 2016.docx)

Good afternoon Minister

Attached is the document regarding Muskrat Falls you requested from Mr. Martin. Since he is currently travelling, he requested I send it along to you.

Thanks and have a great weekend.

Bev

You owe it to yourself, and your family, to make it home safely every day.
What have you done today so that nobody gets hurt?
Tracey

You were unable to respond to my question 4 pending the final provincial budget. Would you now provide me with an answer, beginning with the amount approved for 2016-17? I have pasted my question and your response below, for convenience.

I assume that your response for the current fiscal year can be provided immediately and without the requirement for another ATIPP request given that the province’s budget was released yesterday? I note that the amount presented in yesterday’s budget does not disclose the allocation of the amount budgeted among various Nalcor projects, such as Muskrat Falls, oil and gas investment and other investments. Please provide the allocation. I am copying this request to the Minister of Natural Resources.

Sincerely

Tracey

From: TraceyPennell@nalcorenergy.com [mailto:TraceyPennell@nalcorenergy.com]
Sent: March-29-16 4:28 PM
To: Sec 40
Cc: AnnMalone@nalcorenergy.com
Subject: Access to Information Request PB-172-2016

Attached please find Nalcor’s Final Response in relation to the above noted request. Please note that the attachment referenced within the letter is the last page to the pdf. Could you also please confirm receipt of this email.

Regards,
Tracey
This email communication is confidential and legally privileged. Any unauthorized reproduction, distribution or disclosure of this email or any attachments is strictly prohibited. Please destroy/delete this email communication and attachments and notify me if this email was misdirected to you.
March 29, 2016

VIA EMAIL

Attention: 

Dear 

Re: Your request for access to information under Part II of the Access to Information and Protection of Privacy Act, 2015 (File #: PB/172/2016)

This is to confirm that, on February 26, 2016, Nalcor Energy received your request for access to the following records:

Questions on the Financing of Muskrat Falls

Please provide a source and allocation of funds table for the project, using latest cost estimates, and showing how the amount spent to date has been financed, how much from Emera, from the federally guaranteed debt, how much from the province and how much borrowed on the credit of Nalcor and its subsidiaries, both short term and long. In addition, please provide the following information on project financing:

1. Provide a table showing how the $5 billion borrowed under the federal loan guarantee has been used to date, how much has been spent on the project and how much has been invested in short term investments, pending final disposition.

2. How much money has been advanced by the province for financing of Muskrat Falls in each year, beginning 2008-09 and up to the present year, 2015-16?

3. How much has been advanced so far this year and how much remains to be advanced for the remainder of the current (2015-16) fiscal year?
4. How much funding will be required from the province for each year beyond the present fiscal year up to the completion of Muskrat Falls?

5. Describe the form of the financing advanced by the province for each year covered in 2-4 and whether it is in the form of equity, long term loans, short term loans and any other form of financing?

6. What factors govern the drawdown of Emera equity, federally guaranteed debt and provincial advances?

7. Why did Nalcor borrow all of the federally guaranteed debt up front rather than borrowing the money as required?

8. When money is advanced from the province for Muskrat Falls how is the amount drawn down or paid? Is it advanced as a single payment or spread out over the course of the year and is this determined by the province or by Nalcor?

9. Reconcile the $626 million number shown in Table 1 attached with the numbers shown in the province's budget documents, particularly the $760 million shown in the Estimates of the Department of Natural Resources for 2015-16.

10. Describe how the financing arrangements with the province provide for the equity invested in Muskrat Falls to be withdrawn or recovered.

11. Please provide a schedule of annual future payments from Nalcor or its subsidiaries to the province, separating out payments of dividends from withdrawal of equity principal and indicate any changes from the schedule of dividend payments provided in the attached Table 1.

12. Describe the form in which provincial equity in Nalcor is taken, common shares, preferred shares or other.

13. Please describe the financial terms for advances from the province other than those in the form of equity, including interest and repayment terms.

14. To what extent does Nalcor access financing from sources other than federally guaranteed long term debt and advances from the province? Does Nalcor borrow in the short term money market?
Your request for information has been granted and is provided below. Please see each response:

**General Request:** Please provide a source and allocation of funds table for the project, using latest cost estimates, and showing how the amount spent to date has been financed, how much from Emera, from the federally guaranteed debt, how much from the province and how much borrowed on the credit of Nalcor and its subsidiaries, both short term and long. In addition, please provide the following information on project financing:

**Response:** Please see the attached document, *Muskrat Falls Project Development Cost – Sources & Uses of Funds Summary*.

**Additional Requests:**

1) Provide a table showing how the $5 billion borrowed under the federal loan guarantee has been used to date, how much has been spent on the project and how much has been invested in short term investments, pending final disposition.

**Response:** With respect to your inquiries:

a) Please refer to the *Lower Churchill Project Companies Combined Year End 2015 Financial Statements*, Note 11 (Long Term Debt) for details on the amount of guaranteed debt that has been drawn down (advanced) at December 31, 2015. This is available on the Nalcor Energy website at: [http://www.nalcorenergy.com/2015-q4-report.asp](http://www.nalcorenergy.com/2015-q4-report.asp)

b) Please refer to the *Lower Churchill Project Companies Combined Year End 2015 Financial Statements* (link above), Note 8 (Investments) for details on how the proceeds of the guaranteed debt financing were invested in structured deposit notes and the balances remaining to be disbursed at December 31, 2015.


2) How much money has been advanced by the province for financing of Muskrat Falls in each year, beginning 2008-09 and up to the present year, 2015-16?

**Response:** As noted in our response to you on September 22, 2015, file numbers PB/426/2015 and P8/429/2015, this information was provided to you by the Department of Finance on August 20, 2015, file number FIN/29/2015, Table 1.
3) How much has been advanced so far this year and how much remains to be advanced for the remainder of the current (2015-16) fiscal year?

Response: $571 million in equity has been advanced to Nalcor Energy from the Province for the Muskrat Falls Project for the Province’s 2015/16 fiscal year which ends March 31, 2016. This is the total amount that will be advanced for the 2015/16 fiscal year.

4) How much funding will be required from the province for each year beyond the present fiscal year up to the completion of Muskrat Falls?

Response: An updated version of Table 1, provided to you by the Department of Finance on August 20, 2015 which you attached to this request, is not available at this time. This information forms part of the provincial government’s current budgetary process which has not yet been finalized.

5) Describe the form of the financing advanced by the province for each year covered in 2-4 and whether it is in the form of equity, long term loans, short term loans and any other form of financing?

Response: As noted the Department of Finance’s response to you on August 20, 2015, file number FIN/29/2015, the Province provides equity investments in Nalcor Energy. The Province does not provide loans to Nalcor Energy.

6) What factors govern the drawdown of Emera equity, federally guaranteed debt and provincial advances?

Response: Please refer to Section 4.14 of the Federal Loan Guarantee (FLG) Agreement located on the Muskrat Falls website for details on what governs the drawdown of guaranteed debt and equity contributions to fund the Project. The link to this agreement is: http://muskratfalls.nalcorenergy.com/wp-content/uploads/2013/05/Terms-and-Conditions-of-the-Federal-Loan-Guarantee.pdf

With respect to what governs Emera’s equity contributions for their investment in the Labrador-Island Link, please refer to Article 5.8 of the Newfoundland and Labrador Development Agreement. This agreement is also located on the Muskrat Falls website: http://muskratfalls.nalcorenergy.com/wp-content/uploads/2013/03/07-NL-Development-Agreement-Execution-Copy-July-31-14.pdf

7) Why did Nalcor borrow all of the federally guaranteed debt up front rather than borrowing the money as required?

Response: As part of the Request for Financing launched to major Canadian and international financial institutions in May 2013 to secure $5 billion in federally guaranteed debt, Nalcor Energy, in consultation with both the Governments of Newfoundland & Labrador and Canada,
set a requirement for a financing solution that offered certainty with respect to pricing, amount and the timing of funds available that maximized the benefits of the FLG. As a result, a series of long-term bonds were issued in December 2013 for the full $5 billion at an attractive interest rate of approximately 3.8%, locked in for MF/LTA over a 35 year term and over a 40 year term for the LIL.

8) When money is advanced from the province for Muskrat Falls how is the amount drawn down or paid? Is it advanced as a single payment or spread out over the course of the year and is this determined by the province or by Nalcor?

Response: Equity is advanced monthly from the Province to Nalcor Energy. Nalcor Energy then advances the money to its Lower Churchill Project subsidiaries involved in the construction and financing of the Muskrat Falls Project in accordance with the project finance agreements put in place as part of the FLG arrangements. The key terms and conditions are found in the above noted FLG Agreement.

9) Reconcile the $626 million number shown in Table 1 attached with the numbers shown in the province’s budget documents, particularly the $760 million shown in the Estimates of the Department of Natural Resources for 2015-16.

Response: As noted on page 8 of the Government of Newfoundland and Labradors’ 2015 Budget Highlights document: “In 2015-16 the government will put an equity investment of $760 million into Nalcor, primarily for the Muskrat Falls project.” This amount includes the $626 million and therefore reconciles with the information provided in Table 1 referenced in your request. This document is located at: http://www.budget.gov.nl.ca/budget2015/highlights/highlights_2015.pdf.

10) Describe how the financing arrangements with the province provide for the equity invested in Muskrat Falls to be withdrawn or recovered.

Response: As noted in previous responses to you, Nalcor Energy pays dividends to the Province. Dividends will be paid by Nalcor Energy to the Province on an annual basis for years that generate excess surplus cash after accounting for all operating and capital requirements for that year. The commercial arrangements that support the financing of the Muskrat Falls Project are structured to provide the Province with an overall rate of return as outlined in the Power Purchase Agreement (PPA), Generator Interconnection Agreement (GIA), LIL Lease and Transmission Funding Agreement (TFA). All of these agreements are available on the Muskrat Falls website: https://muskratfalls.nalcorenergy.com/newsroom/reports/.
11) Please provide a schedule of annual future payments from Nalcor or its subsidiaries to the province, separating out payments of dividends from withdrawal of equity principal and indicate any changes from the schedule of dividend payments provided in the attached Table 1.

Response: Please see the response to question 4 above. Further, as noted in response 10, any dividends paid will occur on an annual basis for years that generate excess surplus cash after accounting for all operating and capital requirements for that year.

12) Describe the form in which provincial equity in Nalcor is taken, common shares, preferred shares or other.

Response: As 100% owner of Nalcor Energy, the Province owns 112,500,000 common shares in Nalcor Energy.

13) Please describe the financial terms for advances from the province other than those in the form of equity, including interest and repayment terms.

Response: As noted in response to question 5 above, and in the Department of Finance’s response to you on August 20, 2015, file number FIN/29/2015, the Province provides equity investments in Nalcor Energy. The Province does not provide loans to Nalcor Energy.

14) To what extent does Nalcor access financing from sources other than federally guaranteed long term debt and advances from the province? Does Nalcor borrow in the short term money market?

Response. Funding for the Muskrat Falls Project is provided through draw downs on the $5 billion of guaranteed debt and equity contributions from Nalcor/the Province and Emera. Please refer to page 103, Note 15.1 (Short-Term Borrowings) of the Nalcor Energy 2015 Business and Financial Report (link above) for details on the short-term borrowing facilities deployed by Nalcor Energy.

Please be advised that you may ask the Information and Privacy Commissioner to review the processing of your access request, as set out in section 42 of the Access to Information and Protection of Privacy Act (the Act). A request to the Commissioner must be made in writing within 15 business days of the date of this letter or within a longer period that may be allowed by the Commissioner.
The address and contact information of the Information and Privacy Commissioner is as follows:

Office of the Information and Privacy Commissioner
2 Canada Drive
P. O. Box 13004, Stn. A
St. John’s, NL. A1B 3V8

Telephone: (709) 729-6309
Toll-Free: 1-877-729-6309
Facsimile: (709) 729-6500

You may also appeal directly to the Supreme Court Trial Division within 15 business days after you receive the decision of the public body, pursuant to section 52 of the Act.

Please be advised that the responsive records for this request will be published following a 72 hour period after the response is sent electronically to you or five business days in the case where records are mailed to you. It is the goal to have the responsive records posted to Nalcor Energy’s website within one business day following the applicable period of time. Please note that requests for personal information will not be posted online.

If you have any further questions, please feel free to contact the undersigned by telephone at (709) 737-6671 or by e-mail at traceypennell@nalcorenergy.com.

Sincerely,

Tracey Pennell
Access to Information Coordinator

Encl.
Access or correction complaint

42. (1) A person who makes a request under this Act for access to a record or for correction of personal information may file a complaint with the commissioner respecting a decision, act or failure to act of the head of the public body that relates to the request.

(2) A complaint under subsection (1) shall be filed in writing not later than 15 business days

(a) after the applicant is notified of the decision of the head of the public body, or the date of the act or failure to act; or

(b) after the date the head of the public body is considered to have refused the request under subsection 16(2).

(3) A third party informed under section 19 of a decision of the head of a public body to grant access to a record or part of a record in response to a request may file a complaint with the commissioner respecting that decision.

(4) A complaint under subsection (3) shall be filed in writing not later than 15 business days after the third party is informed of the decision of the head of the public body.

(5) The commissioner may allow a longer time period for the filing of a complaint under this section.

(6) A person or third party who has appealed directly to the Trial Division under subsection 52(1) or 53(1) shall not file a complaint with the commissioner.

(7) The commissioner shall refuse to investigate a complaint where an appeal has been commenced in the Trial Division.

(8) A complaint shall not be filed under this section with respect to

(a) a request that is disregarded under section 21;

(b) a decision respecting an extension of time under section 23;

(c) a variation of a procedure under section 24; or

(d) an estimate of costs or a decision not to waive a cost under section 26.

(9) The commissioner shall provide a copy of the complaint to the head of the public body concerned.
Direct appeal to Trial Division by an applicant

52.(1) Where an applicant has made a request to a public body for access to a record or correction of personal information and has not filed a complaint with the commissioner under section 42, the applicant may appeal the decision, act or failure to act of the head of the public body that relates to the request directly to the Trial Division.

(2) An appeal shall be commenced under subsection (1) not later than 15 business days

(a) after the applicant is notified of the decision of the head of the public body, or the date of the act or failure to act; or

(b) after the date the head of the public body is considered to have refused the request under subsection 16(2).

(3) Where an applicant has filed a complaint with the commissioner under section 42 and the commissioner has refused to investigate the complaint, the applicant may commence an appeal in the Trial Division of the decision, act or failure to act of the head of the public body that relates to the request for access to a record or for correction of personal information.

(4) An appeal shall be commenced under subsection (3) not later than 15 business days after the applicant is notified of the commissioner’s refusal under subsection 45(2).
### Muskrat Falls Project

*Development Cost – Sources & Uses of Funds Summary (SCAD Billions)*

<table>
<thead>
<tr>
<th>Project Costs (Uses)</th>
<th>Sources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities Capital Costs $7.65</td>
<td>Debt $5.0</td>
</tr>
<tr>
<td>Interest During Construction (IDC)/Allowance for Funds Used During Construction (AFUDC) $1.3</td>
<td>Equity by Nalcor/Govt NL $3.3</td>
</tr>
<tr>
<td>and Other Financing Amounts $0.6</td>
<td>Equity by Emera $0.6</td>
</tr>
<tr>
<td><strong>Total</strong> $8.9</td>
<td><strong>Total</strong> $8.9</td>
</tr>
</tbody>
</table>

**Notes**

1. Based on the Muskrat Falls Project cost update released in September 2015.

2. IDC (or capitalized interest) is the interest cost on a loan incurred during the construction period that is capitalized to the asset along with the direct capital costs. IDC is capitalized until the project begins to generate revenue and/or when the company financing the project begins to service its debts. AFUDC is a component of the capitalized costs representing the estimated costs of debt and equity necessary to finance the construction of facilities. AFUDC is capitalized until the project is placed into service or operation. Capitalized costs are incurred when building or financing fixed assets. Capitalized costs are not expensed in the period they are incurred, but recognized over a period of time. Since the Muskrat Falls Project has long-life assets, their costs will be amortized over a long period.

3. Other Financing Amounts include $0.2 billion in cash reserves that are set aside at in-service as part of the financing arrangements, but refunded over the debt repayment period.

4. Includes $0.1 billion in AFUDC on Nalcor/NL contributed equity for the Labrador-Island Link.

5. Includes $0.1 billion in AFUDC on Emera contributed equity for the Labrador-Island Link.

Prepared by: Nalcor Energy  
Date: March 21, 2016
Good afternoon, we recently received a similar request to the one below from Ms. Dempster’s CA.

Here is the email response that was recently sent by the Lower Churchill Project in relation to inquiry about work on the Muskrat Falls Project.

After searching the jobs database, does have a profile created in the Muskrat Falls Jobs database. However, did not consent to her information being accessible to the contractors. As well, the profile appears to be incomplete. Her password has been reset and she should receive a new one shortly in her email for her to gain access so she can update and complete her profile.

If she requires assistance, please call 709 896-6790.

Regards,
Karen O’Neill

Mr. Ball.
When the Muskrat Falls agreement was signed, there was a hiring protocol put in place in the agreement. The agreement as off this date has been violated. The people of Labrador are been treated as second class citizens, when it comes to the hiring. People that worked at Bull Arm, and Long Harbour seems to be given first crack at all jobs, while people from Labrador is left out. Government signed the agreement, so Government should and are obligated to uphold the protocol and set things straight. My wife, and many more have tried to get into Muskrat Fall, but have been left aside so people from the Island can come to work.
I will state now, that if Government doesn’t act, come Monday, May 1st 2016 I will contact a Lawyer and take the necessary steps in a class action law-suit to have the agreement and protocol upheld.
As the Minister responsible for Labrador, you should speak on this matter for the people of Labrador, and set the agreement on the right track.
I'll be waiting for a response on this matter tell Monday. Then, I will be seeking court action.

Thank you
Hi Catherine,

My feedback as promised. Overall, the document is comprehensive and appears to cover both Nalcor and Hydro well.

Couple of points:

1. Under section 7, “Vision” – would recommend that you remove the action words to turn the vision into a result e.g. Nalcor – “A strong economic future for successive generations of Newfoundlanders and Labradorians” rather than “to build a…. “. Just an FYI – when I was in TAO, we would often look at Visions to see if they were reflective of the organization. E.g. would “a strong economic future…..” be indicative of Nalcor or would it be more indicative if there were some reference to “Energy” in the vision? Just thought I would pass this along for your consideration....

2. In general, the goals and objectives are developed at the activity or output level. Would recommend that you revisit the goals where possible focusing on the result/benefit/three year milestone as both Nalcor and Hydro are Category 1 entities and are therefore expected to plan “at or towards an outcome” level. All the information appears to be there, and this could be achieved simply by elevating the goals, objectives and indicators one level.

   a. e.g. Issue 2: Goal could be something like - “Progressed milestones toward a stable and secure electricity supply for the province”.
   b. Measure would then be: Progressed milestones
   c. With goal indicators then reflected as:
      - Enhanced asset management
      - Completed milestones toward Muskrat Falls Access
      - Enhanced programs to support environmental sustainability

3. Would caution against the use of repeated objectives. In this format, the objectives themselves are not “at or towards and outcome”, and they, for the most part, do not speak to the expected change. Therefore, they are basically uninformative to the reader except to indicate more activity. This also becomes a significant challenge during reporting. Would recommend that you focus on the key change piece for the year – rather than trying to write a statement that covers all activities expected. This will help to reduce the repetition and will also make reporting easier. (note that Issue three is probably okay given that there are annual predetermined capital investments and therefore the dates reflect unique results)
4. Issues 4&5 have two goals per issue. This is technically okay – but the repetitive nature of the objectives could perhaps be addressed by combining the goals and again pushing up the goals and objectives one level.

Of the points identified above – the only issue with respect to legislative compliance would be #2 – need to move as close to the outcome as possible. Hope this is helpful.

Please let us know if you have any questions or concerns. I am at the Women in Oil and Gas conference for the next two days – but will do whatever I can to assist. Andrea will be around as well.

Tanya

__________________________

Tanya Noseworthy
Director,
Strategic Planning and Policy Coordination
Department of Natural Resources
Ph: (709) 729-1466; Fax 729-2871

Note: pages 3-5 have been redacted in full under section 27(1)(h) and 27(2)(a).
MUSKRAT FALLS PROJECT FEBRUARY 2016 HIGHLIGHTS

Each month, Nalcor Energy - Lower Churchill Project publishes a Project report which provides an update on the Muskrat Falls Project including details on employment, construction activities, costs, safety and environmental activities, and details on community engagement initiatives during the month. We've highlighted some of the benefits and activities from the Project from the February 2016 report.

Construction Activity Highlights:

- Completion of the enclosure of all spillway bays at the Muskrat Falls generation facility.
- Removal of the Integrated Cover System.
- Completion of 2,377 hectares of right-of-way clearing in Labrador.

Employment and Economic Highlights:

- In February, over 533,000 hours were worked by 3,483 individuals on the projects, including almost 415,000 hours of work in Labrador.
- During the month of February, 2,769 residents of Newfoundland and Labrador were employed on the projects, representing 80 per cent of the total persons employed.
- In February, there were 2,640 people working in Labrador, of whom 771 were Labrador residents (about 30 per cent). Of these 771 Labrador residents, 327 self-identified themselves as a member of a Labrador Aboriginal group (about 42 per cent).
- Total expenditures paid on the Muskrat Falls Project were over $114 million in February 2016. This included over $75 million to Newfoundland and Labrador businesses.
- From February 2013 to the end of the reporting period in February 2016, over $1.22 billion has been spent with Newfoundland and Labrador-based companies.

The full Muskrat Falls Project monthly report can be viewed online at muskratfalls.nalcorenergy.com under Newsroom or by clicking here.

Thank you for your interest in Nalcor Energy's Muskrat Falls Project. You're receiving as you've previously
indicated your interest in Nalcor Energy's business operations. If you wish to discontinue receiving these emails, please respond to lowerchurchill@nalcorenergy.com with "unsubscribe" in the subject to request your name be removed from our distribution list.

Thank you,
Nalcor Energy-Lower Churchill Project
Hi Karen,

The Deputy Minister of Aboriginal Affairs received an e-mail from the Innu Nation with the following comment:

"A significant concern is the ongoing employment and arbitration issues that emanate from the Muskrat Falls project."

The staff at Aboriginal Affairs are preparing a response to the e-mail and have asked for assistance in the preparation of the response. Could you please provide a few lines to assist Aboriginal Affairs in responding?

Thanks,
Tanya
Tanya Noseworthy
Executive Director
Strategic Planning & Policy Coordination
Department of Natural Resources
Government of Newfoundland and Labrador
Ph: 729-1466, fax: 729-2871

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MUSKRAT FALLS PROJECT MARCH 2016 HIGHLIGHTS

Each month, Nalcor Energy - Lower Churchill Project publishes a Project report which provides an update on the Muskrat Falls Project including details on employment, construction activities, costs, safety and environmental activities, and details on community engagement initiatives during the month. We've highlighted some of the benefits and activities from the Project from the March 2016 report.

Construction Activity Highlights:

- Continuation of concrete pouring and placement activities at the Muskrat Falls generation site.
- Continuation of right-of-way clearing and access road construction for the HVdc line.
- Completion of final pad placement for the transformer units at the Churchill Falls switchyard.
- Commencement of loading of the HVdc submarine cable installation equipment onto the cable laying vessel in Halden, Norway.

Employment and Economic Highlights:

- In March, over 564,000 hours were worked by 3,812 individuals on the projects, including over 436,000 hours of work in Labrador.
- During the month of March, 3,126 residents of Newfoundland and Labrador were employed on the projects, representing 82 per cent of the total persons employed.
- In March, there were 2,934 people working in Labrador, of whom 784 were Labrador residents (approximately 27 per cent). Of these 784 Labrador residents, 322 self-identified as a member of a Labrador Aboriginal group (about 41 per cent).
- Total expenditures paid for the Muskrat Falls Project were over $146 million in March 2016. This included nearly $35 million to Newfoundland and Labrador businesses.
- From March 2013 to the end of the reporting period in March 2016, over $1.26 billion has been spent with Newfoundland and Labrador-based companies.

The full Muskrat Falls Project monthly report can be viewed online at muskratfalls.nalcorenergy.com under Newsroom or by clicking here.
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Thank you,
Nalcor Energy-Lower Churchill Project
MUSKRAT FALLS PROJECT JANUARY 2016 HIGHLIGHTS

Each month, Nalcor Energy - Lower Churchill Project publishes a Project report which provides an update on the Muskrat Falls Project including details on employment, construction activities, costs, safety and environmental activities, and details on community engagement initiatives during the month. We've highlighted some of the benefits and activities from the Project from the January 2016 report.

Construction Activity Highlights:
- Completion of the right-of-way (ROW) access roads for the HVdc transmission line in Labrador.
- Completion of the ROW clearing for the HVdc line in Labrador.
- Commencement of formwork and rebar placement in the Powerhouse and Intake by Astaldi.
- The installation of the 1,250 foundation on the Labrador HVac transmission line.
- Installation of the spillway gate guides is progressing with hoarding currently in place in each of the five spillway bays.

Employment and Economic Highlights:
- In January, over 501,000 hours were worked by 3,253 individuals on the projects, including over 379,000 hours of work in Labrador.
- During the month of January, 2,559 residents of Newfoundland and Labrador were employed on the projects, representing 79 per cent of the total persons employed.
- In January, there were 2,434 people working in Labrador, of whom 725 were Labrador residents (about 30 per cent). Of these 725 Labrador residents, 314 self-identified themselves as a member of a Labrador Aboriginal group (about 43 per cent).
- Almost $50 million was spent with Newfoundland and Labrador businesses during the month.
- From January 2013 to the end of January 2016, over $1.15 billion has been spent with Newfoundland and Labrador-based companies.

The full Muskrat Falls Project monthly report can be viewed online at muskratfalls.nalcorenergy.com under.
Newsroom or by clicking here.

Thank you for your interest in Nalcor Energy's Muskrat Falls Project. You're receiving as you've previously indicated your interest in Nalcor Energy's business operations. If you wish to discontinue receiving these emails, please respond to lowerchurchill@nalcorenergy.com with "unsubscribe" in the subject to request your name be removed from our distribution list.

Thank you,
Nalcor Energy-Lower Churchill Project
MUSKRAT FALLS PROJECT DECEMBER 2015 HIGHLIGHTS AND A YEAR IN REVIEW

Each month, Nalcor Energy - Lower Churchill Project publishes a Muskrat Fall Project report which provides an update on the project including details on economic and employment benefits, construction activities, costs, safety and environmental activities, and details on community engagement initiatives.

Employment and economic highlights from 2015 and since the start of project construction:

- 4,552 was the peak number of Newfoundland and Labrador residents working on the project in 2015 - that was 84% of the total workforce in that month.
- 1,309 Labrador residents, 208 Labrador Innu and 578 Newfoundland and Labrador Aboriginal people were working at peak in 2015.
- $1.14 billion in wages has been paid to Newfoundland and Labrador workers since the start of project construction.
- $1.04 billion has been spent with Newfoundland and Labrador-based businesses since the start of construction.
- $9 million was invested in our provincial economy every week from the construction of the Muskrat Falls Project.

Construction Update:
The Muskrat Falls Project is well advanced and work is progressing across the province. Here’s a summary of some of the key construction highlights from 2015:

Muskrat Falls Generation:
- Concrete placement for the spillway piers and the separation wall was completed and significant progress was made on the centre transition dams.
- Work started on the installation of the spillway gates in preparation for the river diversion in 2016.
- Work started on the construction of North and South Dams.

Labrador Transmission Assets (Muskrat Falls to Churchill Falls):
- 100% of the access roads and right-of-way clearing for the transmission line from Muskrat Falls to Churchill Falls was completed.
- Around 86% of the transmission towers were installed and around 68% of the conductor (wire) for the 500 kms of transmission line was completed.

Labrador-Island Transmission Link (Muskrat Falls to Soldiers Pond):
- 91% of the access roads and right-of-way clearing in Labrador was completed.
- In Labrador 53% of the foundations were installed, 61% of the towers were assembled and 19% were erected.
- 10% of the conductor (wire) was strung in Labrador.
- On the island, 50% of the right-of-way and access was cleared and the first tower foundation was
installed.

**Strait of Belle Isle Marine Cable Crossing:**
- Manufacturing of all three marine crossing cables was completed.
- All seven land cable reels were received and installed in Shoal Cove and Forteau.
- Quarrying of approximately 450,000 tonnes of rock, which will be used for the rock berm which protects the subsea marine cable, was completed.
- The quayside, that will be used to load the rock-laying vessel, was completed.

**HVac and HVdc electrical infrastructure requirements:**
- Manufacturing of the 13 power transformers was completed and all units were delivered to their respective sites.
- Construction for both the L’Anse au Diable, in Labrador, and the Dowden’s Point, in Conception Bay South, grounding was completed.
- Construction was underway for the new substations at Churchill Falls, Muskrat Falls, and Soldiers Pond and for the HVdc converter stations at Muskrat Falls and Soldiers Pond.

The full Muskrat Falls Project monthly report can be viewed online at under the Newsroom at [muskratfalls.nalcorenergy.com](http://muskratfalls.nalcorenergy.com) or by clicking [here](http://muskratfalls.nalcorenergy.com).

![Aerial view of the Muskrat Falls powerhouse and intake (left) and spillway (right).](image)

To view recent video footage of some of the Muskrat Falls construction sites, visit the project Photo and Video Gallery at [https://muskratfalls.nalcorenergy.com/newsroom/photo-video-gallery/](https://muskratfalls.nalcorenergy.com/newsroom/photo-video-gallery/)

Thank you for your interest in Nalcor Energy's Muskrat Falls Project. You're receiving as you've previously indicated your interest in Nalcor Energy's business operations. If you wish to discontinue receiving these emails, please respond to lowerchurchill@nalcorenergy.com with "unsubscribe" in the subject to request your name be removed from our distribution list.

Thank you,
Nalcor Energy-Lower Churchill Project
MUSKRAT FALLS PROJECT NOVEMBER 2015 HIGHLIGHTS

Each month, Nalcor Energy - Lower Churchill Project publishes a Project report which provides an update on the Muskrat Falls Project including details on employment, construction activities, costs, safety and environmental activities, and details on community engagement initiatives during the month. We've highlighted some of the benefits and activities from the Project from the November 2015 report.

Construction Activity Highlights:
- Nalcor held its LCP Safety Forum in Labrador. More than 150 representatives from Nalcor, LCP and contractors, suppliers and union representatives attended the second annual event.
- The Trash Rack Cleaning machine that will be installed at the Muskrat Falls generating facility underwent factory acceptance testing at the manufacturing facility in Brannenburg, Germany.
- Installation and backfilling of all land cables was completed at both the Shoal Cove and Forteau Point sites for the Strait of Belle Isle marine cable crossing.
- Commencement of overburden excavation of the South Dam.

Employment and Economic Highlights:
- In November, over 909,000 hours were worked by 5,296 people, including over 745,000 hours of work in Labrador.
- During the month, 4,467 NL residents were working on the project (83% of the workforce).
- There were 4,223 people working in Labrador, of whom 1,191 were Labrador residents (about 28%) and of these 1,191 Labrador residents, 479 self-identified themselves as a member of a Labrador Aboriginal group.
(about 40%).
- Almost $22.5 million was spent with Newfoundland and Labrador businesses during the month.
- From January 2013 to the end of November 2015, over $1.03 billion has been spent with Newfoundland and Labrador-based companies.

The full Muskrat Falls Project monthly report can be viewed online at muskratfalls.nalcorenergy.com under Newsroom or by clicking here.

Thank you for your interest in Nalcor Energy’s Muskrat Falls Project. You’re receiving as you’ve previously indicated your interest in Nalcor Energy’s business operations. If you wish to discontinue receiving these emails, please respond to lowerchurchill@nalcorenergy.com with "unsubscribe" in the subject to request your name be removed from our distribution list.

Thank you,
Nalcor Energy-Lower Churchill Project
Muskrat Falls Project achieves major milestones in October

October 29, 2015, St. John's, NL– The Muskrat Falls Project achieved several milestones across the province on the generation and transmission components of the project this month.

"We are nearing the end of our third full year of construction and we continue to make steady progress in all areas of the project," said Gilbert Bennett, Vice President, Lower Churchill Project. "Construction began in early 2013 and today construction and manufacturing is ongoing in more than 100 locations across the province and around the world."

The Muskrat Falls Project includes construction of an 824 megawatt (MW) hydroelectric dam on the lower Churchill River in Labrador; more than 1,600km of associated transmission lines across Newfoundland and Labrador; a 30km marine crossing across the Straits, from Forteau Point, Labrador to Shoal Cove, Newfoundland; and various electrical infrastructure in Churchill Falls, Muskrat Falls, L'Anse au Diable, Dowden's Point and Soldiers Pond.

"To date, more than 16 million person hours have been worked by the Lower Churchill Project team, contractors and subcontractors with a safety record that is significantly better than the Newfoundland and Labrador construction industry average. Continued efforts are made daily to ensure the safety of everyone working on the Lower Churchill Project," added Bennett.

Some of the major work completed in October 2015 includes:

Muskrat Falls Generating Facility: Completion of concrete placement in the spillway with more than 48,000 m³ of concrete poured for the structure by the contractor constructing the powerhouse and spillway, Astaldi Canada. With the completion of these activities, construction is now focused on installing spillway gates in preparation for river diversion next year.

Labrador-Island Transmission Link: Stringing power line wire (conductor) for the 1,100km HVdc transmission line being built between Muskrat Falls and Soldiers Pond started this month. Work on this new transmission line, being constructed by Valard Construction, began in the summer of 2014 with the first of 3,300 transmission towers safely erected in April 2015.

Strait of Belle Isle Marine Cable Crossing: Following almost three years of manufacturing at Nexans plant in Japan, this month marked the completion of the last of the three subsea marine cables. The first of the three cables was completed in January 2015. The final phase of work in the Straits will involve a cable installation vessel that will install the three transmission cables on the sea floor in 2016. Rock berms will then be placed over each cable by a rock-laying vessel to protect the cables from marine vessel traffic and fishing activity. The quayside where the rock-laying vessel will be loaded was also completed this month, as well as the quarrying of the approximately 450,000 tonnes of rock that will be used for the rock berm.

Electrical Grounding Stations: This month, H.J O'Connell completed construction for both the L'Anse au Diable, in Labrador, and the Dowden's Point, in Conception Bay South, grounding stations. These facilities included civil structures required for the grounding station including armour stone placement to build a breakwater structure.

Construction work for the Muskrat Falls Project is taking place across Newfoundland and Labrador. At peak this year more than 5,300 people were working on the project and around 84 per cent of the project workforce were residents of Newfoundland and Labrador. An estimated $9 million is returned to the provincial economy every week through local business opportunities, employment and wages generated by the project.
Quick Facts:
Muskrat Falls Generation Facility:

- Once built, the 824 megawatt (MW) Muskrat Falls facility will be the second largest hydroelectric generating facility in Atlantic Canada (the largest is Churchill Falls with 5,428 MW capacity) and the generating turbines will be among the most efficient in North America.

- The powerhouse/intake structure will be approximately 85m high. This will be 21m higher than the Confederation Building.

- Muskrat Falls will have two dams. The north dam will be about 34m high and 430m long; the south dam will be 20m high and 243m long. Combined, the two dams will be around the length of five CFL football fields.

Transmission Lines:

- The 1,600kms of transmission line from Churchill Falls to Soldiers Pond will include approximately 4,560 towers and around seven thousands kilometres of wire – enough to stretch from St. John’s to Lima Peru.

- Total weight of all towers and foundation steel is approximately 55 million kg, or approximately the weight of twice the weight of the Hibernia topsides.

- Total weight for all materials required for the transmission lines is more than 102,000 tonnes.

-30-

Media Contact:

Karen O’Neill

Communications Manager, Lower Churchill Project

t.709.737.1427, c.709.690-2012, e.koneill@nalcorenergy.com
Noseworthy, Tanya

From: MarkKing@nalcorenergy.com
Sent: Wednesday, May 11, 2016 10:03 AM
To: Bown, Charles W.; English, Tracy; Noseworthy, Tanya; Quinton, Diana; Morris, Paul J.
Cc: DeanneFisher@nalcorenergy.com; AnnMalone@nalcorenergy.com; TraceyPennell@nalcorenergy.com; KONEill@nlh.nl.ca
Subject: INFORM: Nalcor ATIPP PB/533/2015

Good morning all,

We have just released documents to an ATIPP applicant in response to this ongoing request dating back to late 2015. Attached is the covering letter. Since the documents are large, Ann Malone who's been handling our response will be sending you a file-sharing link shortly.

Below is a summary of the history of this request. Please let me know if you have any questions.

Access to Information Request PB/533/2015

• Nalcor received an Access to Information Request in November 2015 for the following records:

1. A copy of the Civil Works Agreement between Muskrat Falls Corporation and Astaldi Canada Inc. dated November 29, 2013, Articles 1 through 41, and Exhibits 2, 3, 4, 9, 14, 16 and 17.

2. Copies of any correspondence, emails, faxes or letters in which Muskrat Falls Corporation and/or Nalcor have placed Astaldi on notice for delay or for any claim for liquidated damages;

3. Copies of any correspondence, emails, faxes or letters in which Astaldi has put Muskrat Falls Corporation and/or Nalcor on notice of claims for delay and details of those claims and any requests for extensions of time made by Astaldi and document showing the reasons for those extensions of time requests;

4. Copies of all schedules associated with Nalcor/Muskrat Falls Corporation Contract CH0007 Intake, Powerhouse, Spillway and Transition Dams in hardcopy and electronic format.

Nalcor’s Decision Regarding Provision of Records

• Nalcor reviewed the applicant’s request and decided to provide partial access as follows:

o Contract records (item 1 of request):

  • A large portion of the Civil Works Agreement was released in response to an Access to Information request in February 2015. Nalcor's position with respect to this present request is that it cannot withhold previously released information; in essence it is already public. So the Agreement would be released but with the same redactions as were made in the response to the February 2015 request.

  • For portions of the Agreement which were new to this request (Exhibits 3, 4, 14, 16 and 17), provide full access to Exhibits 4, 14 and 16, partially redact Exhibit 3, and fully redact Exhibit 17.

• Refer to attached summary table.

o Correspondence between Nalcor and Astaldi and schedules associated with CH0007 (items 2, 3 and 4 of request):
• Fully redact all correspondence and all schedules.

**Third Party Notification and Complaint**

- Nalcor provided third party notification to Astaldi in accordance with s. 19 of the *Access to Information and Protection of Privacy Act (ATIPPA)*.

- Astaldi filed a complaint with the Office of Information and Privacy Commissioner (OIPC) claiming that substantially all of the information Nalcor was proposing to release should be redacted.

**Complaint Investigation and Recommendations**

- The OIPC investigated the complaint and released report A-2016-003 on the matter. The Commissioner was of the opinion that Nalcor had properly applied the *ATIPPA* and the *Energy Corporation Act* and recommended that Nalcor release the records as originally proposed.

- Nalcor decided to accept the recommendations of the Commissioner and, in accordance with s. 54 of the *ATIPPA*, did not release the records to the applicant until the expiration of the timeframe for Astaldi to initiate an appeal of Nalcor’s decision to the Trial Division.

- Nalcor received confirmation from Astaldi on May 3, 2016 that it had not initiated an appeal. This was confirmed with the Trial Division on May 9, 2016.

**Next Steps**

As the third party complaint and appeal process have been finalized, Nalcor released the records to the applicant on May 10, 2016.

---

Mark King  
Corporate Communications & Shareholder Relations  
Nalcor Energy  
t. 709.733.5301  c. 709.725.6055  
e. MarkKing@nalcorenergy.com  
w. nalcorenergy.com

You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?
Hello all. Our response went to the applicant late yesterday. The electronic docs are large, so I will send them now via file sharing portal. -Mark

FYI, we received the following new ATIPP request recently:

"Nalcor's presentation to the Muskrat Falls Oversight Committee on January 29, 2016 and all subsequent presentations."

Response due April 18.

You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?
Hi everyone. The following went to the applicant late today.

FYI, we have received another extensive ATIPP request (below). Due March 25th. Reviewing to determine existing responsive records.

REQUEST:

"Questions on the Financing of Muskrat Falls"

Please provide a source and allocation of funds table for the project, using latest cost estimates, and showing how the amount spent to date has been financed, how much from Emera, from the federally guaranteed debt, how much from the province and how much borrowed on the credit of Nalcor and its subsidiaries, both short term and long. In addition, please provide the following information on project financing:

1. Provide a table showing how the $5 billion borrowed under the federal loan guarantee has been used to date, how much has been spent on the project and how much has been invested in short term investments, pending final disposition.

2. How much money has been advanced by the province for financing of Muskrat Falls in each year, beginning 2008-09 and up to the present year, 2015-16?

3. How much has been advanced so far this year and how much remains to be advanced for the remainder of the current (2015-16) fiscal year?

4. How much funding will be required from the province for each year beyond the present fiscal year
up to the completion of Muskrat Falls?

5. Describe the form of the financing advanced by the province for each year covered in 2-4 and whether it is in the form of equity, long term loans, short term loans and any other form of financing?

6. What factors govern the drawdown of Emera equity, federally guaranteed debt and provincial advances?

7. Why did Nalcor borrow all of the federally guaranteed debt up front rather than borrowing the money as required?

8. When money is advanced from the province for Muskrat Falls how is the amount drawn down or paid? Is it advanced as a single payment or spread out over the course of the year and is this determined by the province or by Nalcor?

9. Reconcile the $626 million number shown in Table 1 attached with the numbers shown in the province's budget documents, particularly the $760 million shown in the Estimates of the Department of Natural Resources for 2015-16.

10. Describe how the financing arrangements with the province provide for the equity invested in Muskrat Falls to be withdrawn or recovered.

11. Please provide a schedule of annual future payments from Nalcor or its subsidiaries to the province, separating out payments of dividends from withdrawal of equity principal and indicate any changes from the schedule of dividend payments provided in the attached Table 1.

12. Describe the form in which provincial equity in Nalcor is taken, common shares, preferred shares or other.

13. Please describe the financial terms for advances from the province other than those in the form of equity, including interest and repayment terms.

14. To what extent does Nalcor access financing from sources other than federally guaranteed long term debt and advances from the province? Does Nalcor borrow in the short term money market?
Hi Tanya, see below from Scott. Short answer is that these Interim Supply amounts represent capital requirements for the province's growth assets under construction.

Mark

--- Forwarded by Mark King/NLHydro on 03/10/2016 10:49 AM ---

Unlike government departments and other ABCs, which require program funding because they have no (or very limited) revenue sources to cover all (or some) of their operating expenses, Nalcor is a profit oriented entity and as such the company is expected to (and has always been able) fund its own operating costs, as well as its sustaining capital expenditures, using revenues from its various lines of business.

In contrast, what Nalcor is looking for in interim supply is equity to fund capital expenditures in our "growth businesses", where operating cash flows (revenues less operating expenses) cannot (and would not be expected to) fully cover the intense capital requirements associated with the construction of significant new growth assets (in this case, Hebron and Muskrat Falls) - in that way, Nalcor is no different than a privately run business in terms of looking to its shareholders to fund growth opportunities.

To that end, the formula below does not factor in growth capital requirements

Need to look at actual capital requirements over the April 2016 - June 2016 period

<table>
<thead>
<tr>
<th>Requirement Type</th>
<th>Amount</th>
</tr>
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</tr>
<tr>
<td>Oil &amp; Gas 2016/17 requirements</td>
<td>192.4</td>
</tr>
</tbody>
</table>

As per my earlier email, the above noted figures were provided to Finance (Craig Martin) and DNR (Paul Morris) on February 24th.
You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?
FYI, the response to this went out to the applicant a couple of days ago. Having some issue with our file sharing portal (the files are too large to email), but will find a solution shortly.

Mark

Good morning. FYI we have received the following new ATIPP request:

"requests access to the "productivity action plan" prepared by a consultant of the University of Calgary in 2008 at Nalcor's request, as referenced by Mr. Kean, deputy project manager for Muskrat Falls and the Labrador-Island Transmission Link, at the Muskrat Falls Hearing before the Board of Commissioners of Public Utilities of Newfoundland and Labrador held on 13 February 2012 (see page 138 of attached transcript of the hearing). In addition to the "productivity action plan", requests all appendices and relevant correspondence thereto."

Response is due Mar. 1.

Regards,
Mark
FYI only. Update.... Following conversation with Applicant's lawyers and providing links to documentation that is publically available, the Applicant has narrowed the request from 17 items to 4, as follow:

10. Documents that set out the historical as-built productivity rates for the main elements for the civil construction works, as referenced on page 93 of the MHI Report:

   Historical as built productivity rates for the main elements for the civil construction works were considered in the development of the estimate. Productivity rates were based on the experience of Nalcor estimators, norms obtain from SNC-Lavalin, and other cost estimating specialists. The approach used

11. Nalcor's cost estimate calculations for labour for Decision Gate 3, including all supporting documentation;

14. Documents showing Nalcor's assessment of the labour required for construction, and in particular for the CH0007 contract;

16. Evaluation reports prepared by Nalcor of tender submitted by Astaldi, including relevant correspondence;

Mark

FYI, we also received the request below. It's extensive, asking for information relating to Muskrat Falls. We are in the process of evaluating how we respond and have been in contact with the ATIPP office for input.

The request:

1. The Gate 2 Cost Capital Estimate - Muskrat Falls Generation Facility, including all appendices and relevant correspondence related thereto;

2. The documents compiled by Nalcor and provided to the Government regarding labour demands, as referenced by Mr. Kean, deputy
3. The documents provided to the “large number of educational facilities to give them prior warning as to what type of skillsets” Nalcor needs, as referenced by Mr. Kean at page 133 of the attached transcript of the Hearing, including any meeting minutes, notes, and correspondence;


5. The documents that are referred to at page 93 of the MHI Report:
   a) The Project Control Schedule (including the Work Breakdown Structure);
   b) The labour force loading;
   c) The tradesmen required for construction; and
   d) The man hour allocations

6. Muskrat Falls Final Feasibility Study, as referenced on page 83 of the MHI Report;


8. Technical Note – Strategic Risk Analysis and Mitigation, as referenced on page 84 of the MHI Report;

9. Muskrat Falls Generating Facility and Labrador-Island Transmission Link, Overview of Decision Gate 2 Capital Cost and Schedule Estimates, Technical Note, as referenced on page 85 of the MHI Report;

10. Documents that set out the historical as-built productivity rates for the main elements for the civil construction works, as referenced on page 93 of the MHI Report:
    Historical as built productivity rates for the main elements for the civil construction works were considered in the development of the estimate. Productivity rates were based on the experience of Nalcor estimators, norms obtained from SNC-Lavalin, and other cost estimating specialists. The approach used to estimate construction labour costs is considered to be reasonable.

11. Nalcor’s cost estimate calculations for labour for Decision Gate 3, including all supporting documentation;

12. All reports prepared or received by Nalcor relating to Decision Gate 3;

13. Documents used for the preparation of the final Base Cost Estimate;

14. Documents showing Nalcor’s assessment of the labour required for construction, and in particular for the CH0007 contract;

15. Any Class 1, 2, or 3 estimate for the project, and in particular for the CH0007 contract;

16. Evaluation reports prepared by Nalcor of tender submitted by Astaldi, including relevant correspondence; and

17. Evaluation reports prepared by Nalcor of tenders submitted by other parties who bid for the scope of work awarded to Astaldi;

---

Mark
Further to my last email re: this request, there are no responsive records. Attached is the reply to the applicant. -Mark

FYI, this morning we received the following ATIPP Request:

Please provide an update for CA-KPL-Nalcor 27 Rev1 Incremental Costs Muskrat Falls (MF) + Labrador Island Transmission Link (LIL), page 6 of 7, and for PUB-Nalcor-5, page 2 of 4, based on the most recent cost and load growth estimates as well as the latest parameters with respect to the cost of capital. (These documents were filed with the PUB by Nalcor during the 2011-12 Reference hearing.)

Links to the above-noted RFIs:

We are in the process of determining if any responsive records exist.

Due date would be Jan. 29
You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?
Good morning. The attached was sent late yesterday to the applicant in response to the ATIPP request below.

-Mark

ATIPP Question on Revenue Requirements for NL Hydro and Impact on Power Rates

The cost of Muskrat Falls has increased 46% above the DG 2 numbers that were presented to the PUB. I am requesting that Nalcor prepare an update to the revenue requirements for NL Hydro and the overall rate impact, to reflect cost escalation to date, along with other changes in energy markets and economic conditions.

Question: Please provide a detailed estimate of NL Hydro's revenue requirement including both supply and transmission costs, for the first full year after commissioning of Muskrat Falls and for each of the subsequent 50 years, along with the impact on wholesale rates, as well as on retail rates charged by Newfoundland Power, using up-to-date capital cost estimates, a revised load growth forecast and the latest projections for fuel cost savings?

Please include the following information in your response:

1. The annual revenue requirement for the first full year after commissioning of Muskrat Falls and for each of the following 50 years, showing power purchases, fuel cost, and operations. Please show how NL Hydro's power purchase costs are derived from the operating costs of Muskrat Falls, the interest on debt, cost of servicing equity capital and depreciation expenses for each year and for each of a) generation investment, and b) investment in the line from Churchill Falls to Muskrat Falls, c) investment in the Labrador Island Link.

2. Recognizing that the amounts shown in Appendix A to Schedule I of the Power Purchase Agreement (PPA) are "for illustrative purposes only" (s. 2) and that Section 5 of Schedule I states that the Base Block Capital Supply Price (BBCSP) will be determined using "an agreed financial model to be finalized prior to funding under the Financing", please provide this financial model, which will convert the final cost into a 50-year series of payments by NLH under the PPA with respect to the power plant and the line from Muskrat Falls to Churchill Falls.

3. Ongoing operation costs Muskrat Falls over the 50 year period, including separation of water rentals and payments to the Innu Nation and other First Nations.

4. The reduction in fuel consumption by NL Hydro and the value of savings for each grade of fuel in each of the 50 years.

5. The latest load growth forecast for NL Hydro.

6. The calculation of how incremental costs are blended with existing costs to derive both changes in NL Hydro's wholesale power rates, as well as Newfoundland Power's retail rates, in the first full year after commissioning and during the subsequent 50 year period.

7. Any credit against revenue requirements and rate arising from export sale of power for each of the 50 years.

8. A description of the depreciation methodology used for each of the three capital cost components along with a schedule showing the annual expensing of depreciation for each of the 50 years.
9. An updated version of Appendix A to Schedule 1 of the PPA, with deals with the Base Block Capital Cost Recovery for generation assets only along with a similar schedule for transmission assets, including each of the LIL and the link from Muskrat Falls to Churchill Falls.

10. Other inputs and assumptions used to calculate NL Hydro's revenue requirements and the rate impacts.

-----------------------------------------------

Mark King  
Shareholder & Government Relations  
Corporate Communications & Shareholder Relations  
Nalcor Energy  
t. 709.733.5301  c. 709.725.6055  
e. MarkKing@nalcorenergy.com  
w. nalcorenergy.com

You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?  
------ Forwarded by Mark King/NLHydro on 01/14/2016 11:08 AM ------

From: Ann Malone/NLHydro  
To: Mark King/NLHydro@NLHYDRO  
Cc: Tracey Pennell/NLHydro@NLHYDRO  
Date: 01/14/2016 08:17 AM  
Subject: ATIPP • PB/57612015 final response

Hi Mark,

As discussed, attached are the final documents that were sent to the applicant yesterday.

Thanks,  
Ann

-----------------------------------------------

Ann Malone  
Corporate Secretary Analyst  
Nalcor Energy  
t. 709 737-1336  c. 709 687-3629  
e. AnnMalone@nalcorenergy.com  
w. nalcorenergy.com

This email communication is confidential and legally privileged. Any unauthorized reproduction, distribution or disclosure of this email or any attachments is strictly prohibited. Please destroy/delete this email communication and attachments and notify me if this email was misdirected to you.
An update to this. The Applicant has narrowed the request (italics below).

---

We now request the following items only:

1. A copy of the Civil Works Agreement between Muskrat Falls Corporation and Astaldi Canada Inc. dated November 29, 2013, Articles 1 through 41, and Exhibits 2, 3, 4, 9, 14, 16 and 17.

2. Copies of any correspondence, emails, faxes or letters in which Muskrat Falls Corporation and/or Nalcor have placed Astaldi on notice for delay or for any claim for liquidated damages;

3. Copies of any correspondence, emails, faxes or letters in which Astaldi has put Muskrat Falls Corporation and/or Nalcor on notice of claims for delay and details of those claims and any requests for extensions of time made by Astaldi and document showing the reasons for those extensions of time requests;

4. Copies of all schedules associated with Nalcor/Muskrat Falls Corporation Contract CH0007 Intake, Powerhouse, Spillway and Transition Dams in hardcopy and electronic format.

I will advise that in consideration for accommodating this request, we are prepared to attend at your offices to review the documents if that is required and makes things easier.

Hi folks,

Just acknowledging that we received the following ATIPP request transferred from the Department.

"I am writing to seek a copy of all contracts entered into between Nalcor Energy and Astaldi Canada Inc. I also wish to submit a request for all copies of change orders from Astaldi Canada Inc., copies of all schedules and revisions to schedules to these contracts, any documents showing the state of accounts, and all requests by Astaldi Inc. for Extensions of Time or claims associated with delay or extensions of time. Electronic copies in PDF format are acceptable, but if the files are large, please forward these documents to the mailing address provided. If you can accommodate this request, I would be grateful. Please do not hesitate to contact me by email or daytime phone should you have any questions or concerns."

Back in February, we received a similar ATIPP request. Our officials are assessing this latest one and what portions can be released and will provide the applicant an estimate of costs within the next week or so. The total number of pages could be very substantial. In the interim, Tracey Pennell will be contacting the applicant to let them know the scope is large and will require us to review well over 5000 pages, and that some portions will not be released due to commercial sensitivity, which may lead to a narrowing of the request. She’ll also advise the applicant that we have already released approximately 300 pages of this document in a separate ATIPP request.
You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?
FYI, the following request was received today.

"On September 29, 2015, in a press release by Nalcor Energy, CEO Ed Martin said that Muskrat Falls would generate $60 billion in "savings and revenue to the province over the next 50 years." Please provide the calculations leading to this conclusion, separating projected savings from revenue and reconcile them with the data contained in the Power Purchase Agreement, Appendix A to Schedule 1 column three, which cites base capital costs recovery for the Muskrat Falls project. Please include the projections used with respect to A: the cost of fuel for thermal generation; B: the projected load growth; and C: the rate of return on equity, respectively, for each of the following three components:

1) generation assets,
2) transmission assets connecting Muskrat Falls with the Island and
3) transmission assets linking Muskrat Falls with Churchill Falls."

Regards,
Mark

Mark King
Shareholder & Government Relations
Corporate Communications & Shareholder Relations
Nalcor Energy
t. 709.733.5301    c. 709.725.6055
e. MarkKing@nalcorenergy.com
w. nalcorenergy.com

You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?
Good morning, this is an FYI that the following request was received last week and the due date for response is Nov 3.

"I would like updated estimates for the "interconnected electricity rate" and the "interconnected consumer bill" in years 2018, 2020, 2025, and 2030. The estimates should take into account the recently announced cost overruns for the Muskrat Falls Project. These estimates should be directly comparable to the table provided on page 2 of "Questions and Answers - Electricity Rates in NL" found at the following URL: http://muskratfalls.nalcorenergy.com/wp-content/uploads/2014/05/Electricity-Rates_Updated-Aug-20-2014.pdf"

Regards

Mark King
Shareholder & Government Relations
Corporate Communications & Shareholder Relations
Nalcor Energy
t. 709.733.5301 c. 709.725.6055
e. MarkKing@nalcorenergy.com
w. nalcorenergy.com

You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?
A few weeks ago we received an ATIPP consult from the Department of Finance relating to equity investments by government in O&G and Muskrat Falls. The Department of Finance and Nalcor has now received supplemental requests. The original request and the supplemental requests are below, FYI.

Due September 22.

**Original Request:**

1. Equity Investments by government in oil and gas through contributions to Nalcor Energy as well as directly by government, for each year, 2005-06 to 2015-16, for each oilfield.
2. Projected investments by government in oil and gas through contributions to Nalcor Energy as well as directly by government, from 2016-17 to 2025-26, for each oilfield, along with projected returns for the same years, from each oilfield.
3. Equity investments by government in the Muskrat Falls project for each year from 2005-06 to 2015-16, along with projected investments, by year, to the completion of the project.
4. Projected recoveries by government of its Muskrat Falls investment in both equity and debt, by year, over the life of the project, showing return of principal separately from both dividends as well as other returns earned on equity and debt investment by government in the project which should also be separated.

**New Request to the Department of Finance:**

With respect to the information provided concerning dividends from equity investments in oil and gas I am requesting supplementary information as follows:

1. The oil and gas price forecasts used to make these projections on an annual basis for the forecast years included in Table 1 of the response.
2. The oil and gas production forecasts used to make these projections on an annual basis for the 35 years included in Table 1 of the response.
3. The assumptions with respect to distribution of dividends.
4. A reconciliation of the data shown under LCP in Table 1 with those data contained in the Power Purchase Agreement Appendix A to Schedule 1 column three which cites base capital costs recovery for the Muskrat Falls project.

**New Request to Nalcor Energy:**

I am asking Nalcor Energy for the information which the Department of Finance is unable to provide, as follows:

1. The equity investments in oil and gas for each year, 2005-06 to 2015-16, for each oilfield, along with dividends received.
2. Projected investments in oil and gas from 2016-17 to 2025-26, for each oilfield, along with projected dividend returns for the same years, from each oilfield, along with the oil price, currency and dividend payment assumptions used to make these projections.
3. Equity investments by government in the Muskrat Falls project for each year from 2005-06 to
2015-16, along with projected investments, by year, to 2068.

5. Projected recoveries by government of its Muskrat Falls equity investment, by year, over the life of the project, showing return of principal separately from dividends, along with reconciliation with those data contained in the Power Purchase Agreement, Appendix A to Schedule 1 column three, which contains base capital costs recovery for the Muskrat Falls project.
FYI below, we were asked for input regarding a request to DOF.

---

Hi Mark,

This is what I provided to the Dept of Finance.

T.

Sent from my BlackBerry 10 smartphone on the Bell network.

---

Hi Beth,

Apologies for the delay on this. I've attached a draft response for you. If you have any questions, please let me know.
Hi Tracey,

The Department of Finance has received an access to information request for the following on Friday July 24, 2015:

1. Equity Investments by government in oil and gas through contributions to Nalcor Energy as well as directly by government, for each year, 2005-06 to 2015-16, for each oilfield. 2. Projected investments by government in oil and gas through contributions to Nalcor Energy as well as directly by government, from 2016-17 to 2025-26, for each oilfield, along with projected returns for the same years, from each oilfield. 3. Equity investments by government in the Muskrat Falls project for each year from 2005-06 to 2015-16, along with projected investments, by year, to the completion of the project. 4. Projected recoveries by government of its Muskrat Falls investment in both equity and debt, by year, over the life of the project.
project, showing return of principal separately from both dividends as well as other returns earned on equity and debt investment by government in the project which should also be separated.

I have spoken with Renee Pendergast from Natural Resources and she suggested that I contact you.

As Finance has the information that was provided by Nalcor Energy for Budget preparations (not by oilfield), would Nalcor Energy have responsive records to the above request?

The Department was looking at two approaches;

- The file to be transferred to Nalcor Energy, or
- For Finance to respond with what it has and advise the applicant to contact Nalcor for the remaining information?

Please give me a call to discuss further.

Thanks,

Beth

Beth Bartlett
ATIPP Coordinator
Policy, Planning, Accountability, & Information Management
Department of Finance
(T) (709) 729-2082
(F) (709) 729-2070
Email: bethbartlett@gov.nl.ca

From: Pendergast, Renee M.
Sent: Friday, July 24, 2015 2:49 PM
To: Bartlett, Beth; Boland, Gail
Cc: Noseworthy, Tanya; Bown, Charles W.
Subject: RE: Access to Information Request

Beth,

I have spoken to relevant officials in Natural Resources and they have confirmed that we are not the primary owner of this data. The primary holders of this data appear to be Finance and Nalcor.

I recommend that you contact the ATIPP Coordinator at Nalcor on data that they may have in their custody and control relevant to this request. The ATIPP Coordinator for Nalcor is Tracy Pennell - TraceyPennell@nalcorenergy.com.

Please let me know if I can be of any further assistance. Have a good weekend!
Renée Pendergast
Director, Information Management/Protection
Department of Natural Resources
T: 729-1651

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Projected dividend rows in the second table re: LCP contain information that was drafted in error. The information was subsequently revised and the correct information was released as part of an Access to Information response by the Department of Finance (request ID: FIN/29/2015).

**Equity Injections and Dividends: Nalcor Energy – Oil and Gas Inc., Fiscal Years 2008/2009 - 2025/2026**

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<td>442.7</td>
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</table>

*Equity investments received in the fiscal years 2008/09 and 2009/10 also included amounts relating to the development of Gull Island in addition to the development of Muskrat Falls.
Your request for access to this information has been granted. Nalcor Energy (Nalcor) was created in 2007 under the Energy Corporation Act to be Newfoundland and Labrador's energy company and is tasked with leading the development of the Province's energy resources. The Government of Newfoundland and Labrador, as the Shareholder of Nalcor, provides equity injections to Nalcor which enables Nalcor to pursue strategic development opportunities in the energy sector to the benefit of the people of the Province. The first equity injection by the Government to Nalcor occurred in the 2008/2009 fiscal year. The following information has been released in full and is attached:

1. Nalcor Energy – Oil and Gas Inc. Equity investments by the Province as well as projected dividends to the Province from 2008/2009 and projected until 2025/2026.

2. Nalcor Energy – Lower Churchill Project. Equity investments by the Province as well as projected dividends to the Province from 2008/2009 and projected until 2042/2043.²

The above information is based on information used as part of Governments’ 2015 Budget which was released on April 30, 2015.

With respect to the portions of your request relating to the Province’s investment in and projected dividends from Nalcor Energy - Oil and Gas (items 1 and 2), this information is calculated for the total business line, not on an oilfield basis. Equity investments by Government in oil and gas provide the opportunity for significant return on investment to support the long-term prosperity of Newfoundland and Labrador. Nalcor Energy – Oil and Gas is projected to be fully self-sufficient as early as 2017 with Government’s last equity injection for oil and gas occurring in 2016.

With respect to the portions of your request relating to the Province’s investment in and projected dividends from Nalcor Energy – Lower Churchill Project (items 3 and 4), this information has only been determined until the 2042/2043 fiscal year. With respect to the information requested in item 4 of your request, the Province only receives dividends from Nalcor Energy based on its investments in same. As such, the Province does not have any responsive records to that portion of your request.
Tanya Noseworthy
Executive Director
Strategic Planning & Policy Coordination
Department of Natural Resources
Government of Newfoundland and Labrador
Ph: 729-1466, fax: 729-2871

From: Marshall, Andrea
Sent: Tuesday, May 03, 2016 9:25 AM
To: Noseworthy, Tanya
Subject: FW: NR-15-2016: Review of Note

FYI

From: TraceyPennell@nalcorenergy.com
Sent: Monday, May 02, 2016 4:26 PM
To: Marshall, Andrea
Subject: Re: NR-15-2016: Review of Note

Hi Andrea,

We've reviewed the briefing note and want to redact the legal opinions and the two bullets in the note that refer to the legal opinions on the basis that they are exempt under section 30(1) as it is subject to solicitor-client privilege which we do not wish to waive.
If you have any questions, please give me a call. I've attached a pdf marked for redaction. There's two bullets on page 2 and then pages 5 through 19.

Cheers,
Tracey

Tracey L. Pennell
Legal Counsel
ATIPP Coordinator
Nalcor Energy
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Hi Tracey,

I've taken over from Renee on the processing of ATIPP Request NR-15-2016 ("All analysis done looking at cost for shutting down Muskrat Falls project and at what point it becomes more economical to cancel the project than proceed"). I'm meeting with Tracy English and Tanya tomorrow morning on the file and I was just wondering if you could let me know the status of Nalcor's review of the responsive record (i.e., the note).

Once we receive Nalcor's feedback we'll need to perform further review on our end and, as I think you know, our deadline is next Tuesday, May 10. So, you know the drill — the sooner we can get your response the better. Give me a call if you'd like to discuss.

Thanks!

Andrea

Andrea Marshall
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Department of Natural Resources
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Briefing Note
Confidential & Commercially Sensitive

Title: Implications of Cancelling or Significantly Delaying the Muskrat Falls Project

Issue

What are the implications for the Government of Newfoundland & Labrador ("Government") making a decision to cancel or significantly delay all or a component of the Muskrat Falls Project (the "Project"), and providing the associated direction to Nalcor Energy?

Summary Conclusion and Recommendation

If the Government were to cancel or significantly delay the Project there would be substantive legal and financial implications for the Province. In addition, there would also be future negative implications on the reliability of the Province’s electricity system during any delay period.

As a result, it is recommended that Government continue to support and facilitate the timely completion of the Project, including ensuring that the appropriate level of equity contributions are made.

Background and Analysis

The above noted question has been raised in the context of Newfoundland & Labrador’s current challenging fiscal situation. In the fiscal update released by Government in late December 2015, annual deficits of approximately $2 billion and annual borrowing requirements in the range of $2 to $4 billion have been projected over the 2016 to 2021 timeframe. In assessing whether or not the Government should cancel or delay the Project, the following factors should be considered:

1) Need for Power
   - Demand for power continues to grow and is expected to exceed what the current energy assets can supply from a capacity perspective by 2018/19 absent interconnection and a new generation source being available to meet Island customer requirements.
   - As has been seen over the past few winters, the aged Holyrood generating plant is experiencing operational issues and is in need of significant repairs. With the in-service of Muskrat Falls and the transmission links, this aged plant will be retired. If the Project is delayed, then continuing to rely on the Holyrood generating plant will have a significant negative impact on the reliability of the Province’s electricity system.

2) Significant Financial Commitments to Date
   - As at the end of 2015, over 50% of work on the Project has been completed. A total of $4.4 billion in facilities capital and interest/financing costs has been incurred, and $6.6 billion has been committed for construction and procurement contracts. This compares to the current facilities capital cost estimate of $7.65 billion released in September 2015, and nearly $9 billion when interest/financing costs are included.
   - Almost all of the contracts are awarded, goods are procured and many components, such as the turbines and generators or subsea cable, are advancing through or completed manufacturing.
• Any delay or cancellation related to the Project will only add to the overall cost, including costs associated with cancellation or delay penalties for committed contracts.

3) Federal Loan Guarantee & Financing Agreements
• Nalcor, through its Project related subsidiaries, has borrowed $5 billion under a Federal Loan Guarantee ("FLG") with the Government of Canada ("Canada") at a very favorable interest rate of approximately 3.8% over 35 years for Muskrat Falls / Labrador Transmission Assets ("MF/LTA") and 40 years for the Labrador-Island Link ("LIL"). These funds were fully secured in December 2013 and have to be repaid with interest.
• As part of the FLG, the Province executed an equity completion guarantee to provide whatever funding is required above the $5 billion to ensure the full Project achieves in-service. If the Province decides to cancel or significantly delay all or a component of the Project, this would trigger default provisions under the FLG and financing agreements. This would include cross defaults between all Project components in the event just one component was cancelled or significantly delayed. Absent a cure for these defaults, Canada has the right to step in and take over the Project assets, as well as pursue the Province for damages resulting from these defaults.

• In a situation where Canada steps in and completes the Project, customers in the Province will still have to pay for the electricity through power supply and transmission agreements with NL Hydro, and the associated dividends and Muskrat Falls export revenues will be paid to the Federal government (or to an entity it may decide to sell the assets to) instead of to the Province.
• In a situation where for some reason Canada chose not to have the events of default and its step-in rights realized, the repayment of the $5 billion debt plus interest would still be required, incremental Project costs would still accumulate, a new source of generation would still be required, and all these costs would still be passed onto ratepayers in the Province.

4) Nalcor/Emera Agreements
• Nalcor has entered into a series of agreements with Nova Scotia’s Emera Inc. ("Emera"), who is investing $1.5 billion plus interest/financing costs to build the Maritime Transmission Link ("ML") and will receive 20% of Muskrat Falls’ power over 35 years (the “NS Block”). The ML reverts back to Nalcor for $1 at the end of that period.
• Nalcor will have access to about 70% of the ML's capacity at no cost and can use the link to transmit surplus power to markets outside NL. Nalcor has also negotiated additional transmission rights from Emera through Nova Scotia, New Brunswick and the US northeast so that it can access markets. The ML will also allow imports of power and facilitate increased reliability for the NL electricity grid.
• In the event the Project was cancelled or delayed, even for a short period of time, there are significant remedies to Emera if this power is not provided, including recovery of Emera's costs and related damages plus an obligation for Nalcor to deliver power or financial compensation equivalent to the NS Block.
• Emera also has an equity investment in the LIL, and in the event the Project is halted there are significant remedies available to Emera including recovery of Emera's investment in the LIL and any related damages.
5) Significant Economic Value to the Province

- Approximately $9 million is invested in the NL economy weekly as a result of the Project, and over $1 billion has been spent with NL businesses since the start of the Project.
- At peak in 2015 over 4,500 NL residents were working on the Project, which equates to over $1 billion in wages to NL residents. Employment is expected to be at similar levels in 2016.
- The Province’s total equity investment in the Project is currently estimated at $3.1 billion based on the $7.65 billion facilities capital cost estimate released in September 2015. As at the end of 2015, approximately $1.5 billion of this has been invested. The Province is currently borrowing long-term debt at approximately 3-3.5% to fund these equity commitments which will provide a guaranteed equity return of greater than 8% over a 50 year period.
- The development of the Project will result in approximately $60 billion in benefits and cost savings to Newfoundlanders and Labradorians over 50 years.
- The Project lays the groundwork for development of other energy projects in the Province such as small hydro, wind and the much larger Gull Island hydroelectric facility.

6) Clean Energy Impact

- With the completion of the Project, Newfoundland and Labrador will have over 98% renewable electricity generation.
- Muskrat Falls essentially eliminates the Province’s reliance on burning fossil fuels for electricity generation. The retirement of the Holyrood thermal generation station will result in the reduction of one million tonnes of green house gas (“GHG”) emissions annually and provide long-term stability to electricity rates.
- Hydropower is a clean, renewable, and stable source of energy. Once built, a hydropower resource will last for more than 100 years.
- The benefits of clean, renewable hydropower can be seen in other jurisdictions in Canada.

Alternatives

1) Proceed with the Project (RECOMMENDED)

Advantages

- Provides a long-term, clean energy solution to meet the Province’s growing power demands and provides long-term rate stability to electricity customers.
- Eliminates the need to rely on thermal generation from the Holyrood generating plant.
- Delivers significant short and long-term economic benefits to the people of the Province as outlined above.
- Fulfills the Provinces contractual commitments to Canada, Nova Scotia and Emera under the FLG, financing arrangements and Nalcor/Emera agreements to support completion of a clean energy project of significant value to both the Atlantic region and country.
- Connects the island of Newfoundland to the North American electricity grid for the first time, providing opportunities to import/export power and increased reliability to the NL electricity grid.

Disadvantages

- Based on current fiscal and economic projections by Government, it is expected that the Province’s remaining $1.6 billion equity commitment to the Project, plus any additional cost overruns, will have to be funded through borrowings in the capital markets.
2) Cancel or Significantly Delay the Project (NOT RECOMMENDED)

Advantages
• None identified

Disadvantages
• Cancellation of a significant clean energy development that is over 50% complete which will meet the Province’s growing power demands, replace an aging oil burning thermal generation asset, and provide long-term rate stability and added reliability to electricity customers.
• Default under the FLG and financing arrangements would result in loss of the assets and associated long-term dividends and Muskrat Falls export revenue to Canada while still having NL ratepayers being required to pay for the cost of the Project upon completion.
• Defaults under the FLG/financing arrangements and the Nalcor/Emera agreements would result in significant reputational, legal and financial damages to the Province.
• High likelihood of downgrade by the credit rating agencies and potential that investors would be unwilling to buy future NL bond issuances due to concerns over the Province’s willingness to meet its financial obligations, resulting in a fiscal situation for Newfoundland & Labrador significantly more negative than current projections.
• Reluctance by governments from other jurisdictions or privately owned corporations to partner with the Government of Newfoundland & Labrador on future energy developments within the Province.

Prepared by: Nalcor Energy
Date: March 7, 2016

Note: pages 53-67 have been redacted in full under sections 30(1)(a) and 30(1)(b).
I don’t have the draft response as it is being prepared by Aboriginal Affairs. Also my understanding is that it includes responses on a number of public policy areas that are not related to Nalcor or Natural Resources and thus not likely something that will be circulated.

Please send along whatever you can in response.

Thanks,
Tanya

Karen O’Neill
Communications Manager
Lower Churchill Management Corporation
Nalcor Energy - Lower Churchill Project
t. 709.737.1427 c. 709.690.2012
e. koneill@nalcorenergy.com
1.888.576.5454

You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?
Hi Karen,

The Deputy Minister of Aboriginal Affairs received an e-mail from the Innu Nation with the following comment:
“A significant concern is the ongoing employment and arbitration issues that emanate from the Muskrat Falls project.”

The staff at Aboriginal Affairs are preparing a response to the e-mail and have asked for assistance in the preparation of the response. Could you please provide a few lines to assist Aboriginal Affairs in responding?

Thanks,
Tanya

Tanya Noseworthy
Executive Director
Strategic Planning & Policy Coordination
Department of Natural Resources
Government of Newfoundland and Labrador
Ph: 729-1466, fax: 729-2871

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From: Noseworthy, Tanya  
Sent: Wednesday, May 11, 2016 1:56 PM  
To: Quinton, Diana  
Subject: FW: NR-15-2016: Review of Note  
Attachments: MF Project Cancellation or Delay Briefing Paper March 2016 (FINAL)- marked for redaction.pdf

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Tanya Noseworthy  
Executive Director  
Strategic Planning & Policy Coordination  
Department of Natural Resources  
Government of Newfoundland and Labrador  
Ph: 729-1466, fax: 729-2871

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From: Marshall, Andrea  
Sent: Wednesday, May 11, 2016 1:54 PM  
To: Noseworthy, Tanya  
Subject: FW: NR-15-2016: Review of Note

The highlighted paragraph provides a good summary.

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From: TraceyPennell@nalcorenergy.com  
Sent: Monday, May 02, 2016 4:26 PM  
To: Marshall, Andrea  
Subject: Re: NR-15-2016: Review of Note

Hi Andrea,

We've reviewed the briefing note and want to redact the legal opinions and the two bullets in the note that refer to the legal opinions on the basis that they are exempt under section 30(1) as it is subject to solicitor-client privilege which we do not wish to waive.
If you have any questions, please give me a call. I've attached a pdf marked for redaction. There's two bullets on page 2 and then pages 5 through 19.

Cheers,
Tracey

Tracey L. Pennell
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ATIPP Coordinator
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From: "Marshall, Andrea" <AndreaMarshall@gov.nl.ca>
To: "Tracey Pennell (TraceyPennell@nalcorenergy.com)" <TraceyPennell@nalcorenergy.com>
Date: 05/02/2016 02:42 PM
Subject: NR-15-2016: Review of Note
Hi Tracey,

I've taken over from Renee on the processing of ATIPP Request NR-15-2016 ("All analysis done looking at cost for shutting down Muskrat Falls project and at what point it becomes more economical to cancel the project than proceed"). I'm meeting with Tracy English and Tanya tomorrow morning on the file and I was just wondering if you could let me know the status of Nalcor's review of the responsive record (i.e., the note).

Once we receive Nalcor's feedback we'll need to perform further review on our end and, as I think you know, our deadline is next Tuesday, May 10. So, you know the drill – the sooner we can get your response the better. Give me a call if you'd like to discuss.

Thanks!

Andrea

Andrea Marshall
Strategic Planning & Policy Coordination Division
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Noseworthy, Tanya

From: MariaMoran@nalcorenergy.com
Sent: Wednesday, July 27, 2011 10:45 AM
To: Newhook, Vanessa
Cc: Hickey, Barbara; MacLellan, Heather; Noseworthy, Tanya
Subject: RE: LCP Diversity

Works for me. Would you like to meet here?

Maria Moran
Industrial Benefits Lead
Lower Churchill
Nalcor Energy - Lower Churchill Project
t. 709 737-1942 c. 709 693-5397 f. 709 737-1985
e. MariaMoran@nalcorenergy.com
w. nalcorenergy.com

Maria,

Sorry for the delay, I was trying to re-arrange some meetings for next week. Thursday morning is good for Heather and I. Tanya is out of the office today but it looks like she is available. How about 9:30?

Vanessa

Vanessa Newhook
ADM, Royalties and Benefits
Department of Natural Resources
Government of Newfoundland and Labrador
t 709.729.1644

From: MariaMoran@nalcorenergy.com [mailto:MariaMoran@nalcorenergy.com]
Sent: July 27, 2011 9:12 AM
To: MacLellan, Heather
Cc: Hickey, Barbara; Noseworthy, Tanya; Newhook, Vanessa
Subject: RE: LCP Diversity

Hi All
Should I schedule something for the morning of August 4th

1
From: "MacLellan, Heather" <hmaclellan@gov.nl.ca>
To: <MariaMoran@nalcorenergy.com>
Cc: "Noseworthy, Tanya" <tanyanoseworthy@gov.nl.ca>, "Newhook, Vanessa" <vnnewhook@gov.nl.ca>, "Hickey, Barbara" <bhickay@gov.nl.ca>
Date: 07/25/2011 03:57 PM
Subject: RE: LCP Diversity

Maria

Would love to meet with you on the consultation plan.
Tanya and/or Vanessa should also participate in the meeting.
The afternoon of the 4th is not too good for me but I am available in the morning.
Is that ok with you and via this email I will ask Tanya/Vanessa as well.

Bye for now
Heather MacLellan

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From: MariaMoran@nalcorenergy.com [mailto: MariaMoran@nalcorenergy.com]
Sent: Monday, July 25, 2011 10:08 AM
To: MacLellan, Heather
Subject: LCP Diversity

Hi Heather
Wondering about your availability for a meeting re Gender Equity and Diversity. Are you available the afternoon of August 4th. We have a consultation workplan and would like your input.

Maria
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Hi all, the response to this request is due today, and will be sent to the applicant shortly. Note the scope was narrowed, and you will see the final wording of the request itself in the covering letter to the applicant. Either Ann Malone or Tracey Pennell will forward you a file-sharing link to access the files.

Regards,
Mark

FYI, we have also received the following request, due May 20. It is a fairly extensive information request. Per normal procedure, our officials will assess what is responsive and releasable.

Please provide the following information related to the Lower Churchill Project:
1. The latest Project Delivery Team Organization Charts for the LCMC.
2. Listing of names, positions / titles, salaries, compensation of all individuals listed in organization chart.
3. Designation of each individual listed in organization chart as either Contractor or Nalcor Employee and their mode of employment (ie. hired from within Nalcor such as transfer, hired via a recruitment agency, hired via LCP HR department not via recruitment agency).
4. Listing of all employees who have been hired via a recruitment agency and the name of the recruitment agency, the charge out rate from the recruitment agency to LCP and salary actually payed to the employee.
5. Total 2015 salary / compensation for the entire Project Deliver Team listed in item 1 above.
6. Listing of recruitment agencies used by LCP and a breakdown of the number of employees hired per agency.
7. Any internal Nalcor documentation / correspondence related to any internal audit of potential conflict of interest or improper hiring practices by the LCP through recruitment agencies.
You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?
Still TBD, but a number have accepted the invitation, so will be them and/or delegates. Currently confirmed:

1. Dawn Dalley, VP Corp Relations
2. Chris Kieley, VP Strategic Planning
3. Rob Henderson, VP Transition to Operations
4. Terry LeDrew, Mgr, TTO
5. John MacIsaac, Pres, NL Hydro
6. Mike Roberts, VP, HR
7. Derrick Sturge, VP Finance & CFO
8. Gilbert Bennett, VP, LCP
9. Jim Keating, VP, Oil and Gas
11. Rob Collett, Mgr Transmission Planning
12. Bob Moulton, Mgr Generation and Rural Planning

You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?
Thanks Mark, I’ve sent the time along to GPA. Can you advise who will be attending the meeting from your end?

Thanks,
Tanya

___________________________
Tanya Noseworthy
Executive Director
Strategic Planning & Policy Coordination
Department of Natural Resources
Government of Newfoundland and Labrador
Ph: 729-1466, fax: 729-2871

From: MarkKing@nalcorenergy.com [mailto:MarkKing@nalcorenergy.com]
Sent: Thursday, February 04, 2016 4:59 PM
To: Noseworthy, Tanya
Subject: 3:00 - 4:30 next Tuesday OK for meeting? I have room booked

Mark King
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Corporate Communications & Shareholder Relations
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