January 22, 2016

Dear [Redacted]

Re: Your request for access to information under Part II of the Access to Information and Protection of Privacy Act, 2015 [Our File #: PRE/35/2015]

On December 23, 2015, the Premier’s Office received your request for access to the following records/information:

"Briefing materials -- in any and all formats, including paper and electronic -- prepared for, and/or provided to, the premier related to the Muskrat Falls hydroelectric project. Date range of request is Nov. 1, 2015 to the present."

I am pleased to inform you that a decision has been made by the Deputy Chief of Staff of the Premier’s Office to provide access to briefing materials provided to Premier Ball since taking office on December 14, 2015. In particular, access is granted to the following records:

- Information note – Muskrat Falls Effect on Mercury in Lake Melville
- Presentation – Muskrat Falls Overview and Project Update
- Presentation – NL Electricity Rates and Easing Muskrat Falls Project Impact

Access to some 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):

29. (1) The head of a public body may refuse to disclose to an applicant information that would reveal

   (a) advice, proposals, recommendations, analyses or policy options developed by or for a public body or minister;
35. (1) The head of a public body may refuse to disclose to an applicant information which could reasonably be expected to disclose

(d) information, the disclosure of which could reasonably be expected to result in the premature disclosure of a proposal or project or in significant loss or gain to a third party;

(g) 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; or

In addition to the attached, the Premier’s Office was also provided with the following publically available documents which are available at the links noted below:


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 appropriate copies have been enclosed.

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 copy of this section of the Act has been enclosed for your reference). 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 (a copy of this section of the Act has been enclosed for your reference).

The responsive records will be published following a 72 hour period after the response is sent electronically 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. Please note that requests for personal information will not be posted online.
If you have any further questions, please feel free to contact me by telephone at (709) 729-3570 or by e-mail at joybuckle@gov.nl.ca.

Sincerely,

[Signature]

Joy Buckle
ATIPP Coordinator

Enc.
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).
TAB 1
Information Note
Department of Environment and Conservation (ENVC)

Title: Muskrat Falls Effect on Mercury in Lake Melville

Issue: To provide context on GNL’s involvement thus far on mercury and associated downstream impacts in relation to the Lower Churchill Project.

Background and Current Status:

- Nalcor Energy’s Lower Churchill Generation Project was released from Environmental Assessment (EA) on March 15, 2012 subject to an extensive list of conditions. The last two conditions to be addressed are Wetland/Riparian Compensation Plans and Human Health Risk Assessment Plan (HHRA)/Environmental Effects Monitoring Plan (EEMP), both of which are subject to Aboriginal consultation prior to approval.

- The EA panel made a number of recommendations related to mercury (see Annex A) and identified significant adverse effects on fishing and seal hunting in Lake Melville should methylmercury accumulation lead to consumption advisories for the area.

- The Nunatsiavut Government (NG) has expressed concern that this may impact on their treaty rights to fish as set out in the Labrador Inuit Land Claims Agreement. The NG has previously lost in a court action against GNL for the issuance of a permit allowing the construction of the dam and generating facility at Muskrat Falls.

- While mercury is found naturally in the environment, reservoir flooding allows mercury present in the submerged forest floor to be taken up by aquatic bacteria and converted into toxic methylmercury (see Figure 1 in Annex B). Health Canada’s list of potential risks of ingestion includes seizures, changes in vision, deafness, memory loss, and in very extreme cases, death.

- To reduce risks to human health, consumption advisories limiting the amount of fish eaten from an affected reservoir are currently in place on the Churchill River system, related to the elevated but decreasing mercury levels due to the flooding of the Smallwood Reservoir.

- Nalcor runs a comprehensive Environmental Effects Monitoring Program that includes measuring mercury levels in the environment and people before and after the reservoir is created, to identify any actions needed to ensure the health and safety of those living nearby.

- All monitoring plans will be described in Nalcor’s Fish Habitat and Compensation Plan and its EEMP. This process is regulated by Fisheries and Oceans Canada and approved through a Fisheries Act authorization.

- Partial clearing for the Muskrat Falls reservoir is ongoing. Vegetation and trees in the reservoir will be removed where it is safe and practical, though a buffer will be left near water bodies and on steep slopes. ENVC officials agree with Nalcor’s modelling which
shows that removing all of the vegetation would lead to only a negligible reduction in methylmercury levels.

- Nalcor has submitted a HHRA plan for review by departments and Aboriginal organizations. The plan outlines the activities Nalcor will undertake to develop a final baseline pre-flooding assessment of human exposures to methylmercury in key country food items, including a dietary survey and a human bio-monitoring program, which includes hair sampling. The NG disapproves of the plan indicating it lacks specific details on how the HHRA will be carried out. Nalcor has yet to submit final versions of the dietary survey and bio-monitoring program but has indicated that they would be completed by the end of December 2015. NG has also started collecting dietary survey and human bio-monitoring data.

- Results of monitoring programs and information about current mercury levels in the project area are available on the Muskrat Falls Project website.

- In addition to Nalcor’s monitoring, ENVC’s Water Resources Management Division is monitoring water quality as well as general water quality on a real-time basis. To date ENVC’s mercury results are below detection limits.

- Nalcor has consulted with Aboriginal groups, key stakeholders, and the general public in Upper Lake Melville to gain insight into the concerns of community members.

- The NG has partnered with scientists from Memorial University, Harvard and ArcticNet to monitor the water quality in Lake Melville for potential changes during the Muskrat Falls hydroelectric project and specifically bioaccumulation of methylmercury in traditional food sources.

Analysis:
- In early 2013, the then-Ministers of ENVC and NR met separately with NG Minister of Lands and Natural Resources Darryl Shiwak to discuss potential funding for the NG’s Lake Melville research and monitoring program. GNL considered the program redundant given the release conditions placed on Nalcor and, in a follow-up letter, declined to provide funding. NG proceeded on its own to complete the study.

- NG presented Harvard research findings to LAAO and ENVC officials on October 30, 2015. In the meeting, the NG made four specific requests of Government (see follow-up letter in Annex C):
  1. Fully clear the future Muskrat Falls reservoir;
  2. Negotiate an Impact Management Agreement;
  3. Establish an independent Expert Advisory Committee; and
  4. Grant Inuit joint decision-making authority over downstream environmental monitoring and management.

- Provincial officials communicated that they are still in the process of reviewing the findings of the study, and made no specific comments on the study itself. They committed to fully and fairly review any material provided by the NG in relation to downstream impacts.
During the election campaign, the NG launched a media campaign *Make Muskrat Right* which outlines the NG’s concerns with the impact of methylmercury on the health of Inuit.

The NunatuKavut Community Council also supports the concerns of the NG.

The study also found that, while mercury levels in local fish are very low, older ringed seals show levels of mercury above the recommended Health Canada guideline. The study also points out that any impact on the downstream environment and the local population will require the attention of federal agencies (i.e. the Department of Fisheries and Oceans - DFO, Health Canada, Environment Canada, etc.) to take appropriate risk management measures.

**Action Being Taken:**

- Regulatory agencies will continue to review Nalcor’s environmental plans as they are filed and will continue to oversee the monitoring of methylmercury and impacts of the Muskrat Falls Project on the downstream environment.

- Any impact on the downstream environment and potential risk to the local population will require the attention of federal agencies (i.e. DFO, Health Canada, Environment Canada, etc.) to take appropriate risk management measures.

**Prepared/approved by:** P.Carter/M.McComiskey/R.Paterson/B.Cleary/H.Khan/M.Goebel/C. Janes

**Reviewed by:** W. Parsons/T. King, Cabinet Secretariat

**November 30, 2015**

**Cabinet Secretariat Comment:**

- NR, LAAO, JPS, and HCS have no concerns.

- The Communications Branch recommends that: ENVC have key messages available to address how it is working with Nalcor and the NG to mitigate mercury from the Muskrat Falls project.
Annex A - Joint Review Panel Recommendations regarding Mercury

Rec. #4.5 - Full clearing of the Muskrat Falls reservoir

Response: the Government of Newfoundland and Labrador agrees with the principle of maximizing the utilization of the forest resource. With limited opportunities to use the resource, and the likely insignificant reductions in mercury levels associated with full versus partial clearing, the Government supports partial harvesting of the flood zone. If an economic opportunity to use the resource materializes, consideration will be given to harvesting additional fibre.

Rec. #6.5 - Pilot study for methylmercury mitigation through soil removal

Response: the Government of Newfoundland and Labrador notes this recommendation is directed to Natural Resources Canada and Nalcor. (Natural Resources Canada has responded to indicate that they would not be completing such a pilot study.)

Rec. #13.9 - Possible requirement for consumption advisories in Goose Bay or Lake Melville

Response: the Government of Newfoundland and Labrador accepts the intent of this recommendation. If consumption advisories are required as a result of the downstream mercury assessment, then Nalcor should consult with downstream resource users on further mitigation measures, including the potential for compensation.

Rec. #15.5 - Lower Churchill Project Monitoring and Community Liaison Committee

Response: the Government of Newfoundland and Labrador accepts the intent of this recommendation to establish an Environmental Monitoring and Community Liaison Committee. As identified in the Governments’ response to recommendation 15.1, a committee will be established by Nalcor to provide feedback and advice to the Proponent and Government on the effects of the Project. The Government is committed to ensuring consultation with affected Aboriginal groups, communities, and relevant stakeholders to address public concerns and communicate monitoring results.
Figure 1: The mercury cycle: Various forms of mercury are converted from one form to the next (USGS, 2008).

The guidelines related to total mercury and methylmercury in fish tissue are as follows:

<table>
<thead>
<tr>
<th>Health Canada - Canadian Standards (Maximum Levels) for Various Chemical Contaminants in Foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mercury Total</td>
</tr>
<tr>
<td>0.5 ppm</td>
</tr>
<tr>
<td>1 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Canada - Provisional Tolerable Daily Intake (pTDI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults Childbearing Age and &lt;12years</td>
</tr>
<tr>
<td>Methyl Mercury Organic</td>
</tr>
<tr>
<td>0.47µg/kg bw/day**</td>
</tr>
<tr>
<td>0.2µg/kg bw/day**</td>
</tr>
</tbody>
</table>

*ISQG = Interim sediment quality guidelines, PEL = Probable Effect Level
**bw/day = body weight/day
Annex C - Letter from Minister Shiwak

November 9, 2015
Via Email cjanes@gov.nl.ca and fax (709) 729-0112
Colleen Janes
Deputy Minister
Department of Environment and Conservation
Government of Newfoundland and Labrador
St. John’s, NL
Tel: (709) 729-2572

Re: Harvard University mercury research results in relation to Muskrat Falls hydroelectric development in Labrador – protecting Inuit lands and health

Dear Ms. Janes,

The Nunatsiavut Government continues to be deeply concerned of the potential for the Muskrat Falls hydroelectric dam to cause serious harm to downstream Inuit communities. This letter follows our October 30, 2015 meeting you and Government of Newfoundland and Labrador officials where we presented the results of a recent research paper entitled “Freshwater discharges drive high levels of methylmercury in Arctic marine biota” published in Proceedings of the National Academy of Sciences.

The Muskrat Falls hydroelectric development is currently being constructed on the Churchill River in Labrador. Nalcor Energy, the provincial energy corporation, predicted no measurable effect on Lake Melville, a large estuary that falls mostly within Labrador Inuit Settlement Area and on which nearby Inuit communities depend for their sustenance and health. The project was approved based in part on this assessment. However, the Joint Review Panel conducting the environmental assessment concluded Nalcor’s claims were “unsubstantiated”. A subsequent independent, peer-reviewed Harvard University study released in early September 2015 and designed to fill this gap in knowledge shows that, in fact, we can expect significant increases in methylmercury inputs to Lake Melville as a result of Muskrat Falls (Harvard feature release from Monday September 7: https://www.seas.harvard.edu/news/2015/09/poison-in-arctic-and-cost-of-clean-energy). Consumed by humans, mercury can cross the blood-brain barrier, leading to cardiovascular effects in adults (e.g. higher risk of heart attack), and neurological and cognitive impairment among infants and children.

Inuit communities rely on Lake Melville for hunting and fishing. The estuary is crucial to the exercise and enjoyment of Aboriginal rights and other human rights, including the right to culture, the right to health, and the right to livelihood.

The Harvard-led research follows a recommendation for a new downstream effects assessment from the Lower Churchill Joint Review Panel report and adds significant new information relevant to the Muskrat Falls development.
In light of this new, independent and scientifically-defensible information, to reduce impacts on Inuit health and rights, the Nunatsiavut Government is requesting that the Government of Newfoundland and Labrador direct Nalcor Energy to:

1. **Fully clear the future Muskrat Falls reservoir** area of wood, brush and vegetation before flooding to reduce methylmercury inputs downstream into Inuit territory, consistent with recommendation 4.5 of the Joint Review Panel.

2. **Negotiate an Impact Management Agreement** with the Nunatsiavut Government before Muskrat Falls flooding and subsequent damaging downstream impacts occur, consistent with recommendation 13.9 of the Joint Review Panel.

3. **Establish an independent Expert Advisory Committee** of recognized academic experts to advise on the design of and audit, a rigorous, credible, and predictive monitoring program for downstream impacts of Muskrat Falls on the environment and health, using the best available scientific and Inuit knowledge.

4. **Grant Inuit joint decision-making authority over downstream environmental monitoring and management** of the Lower Churchill project.

Health and the right to a healthy environment are of fundamental importance to Inuit. Therefore, I would like to discuss each of these measures directly with the Minister of Environment and Conservation immediately subsequent to their appointment after the November 30, 2015 election and look forward to a reply confirming a meeting soon after this date.

Sincerely,

Darryl Shiwak  
Minister, Lands and Natural Resources  
E-mail: darryl.shiwak@nunatsiavut.com  
Tel: (709) 947-3383 x201  
Fax: (709) 947-3543

cc. Aubrey Gover, Deputy Minister of Labrador and Aboriginal Affairs  
Via Fax 709-729-4900
TAB 2
Muskrat Falls Project

- Muskrat Falls Generation:
  - 821 MW hydroelectric facility, 4.9 TWh/yr

- Labrador-Island Transmission Link:
  - 500 MW capacity
  - Muskrat Falls to Soldiers Pond near Holyrood
  - 1,100 km, including 35 km across the Strait of Belle Isle

- Maritime Transmission Link:
  - 500 MW capacity
  - Includes 180 km undersea link from Cape Ray, NL to Cape Breton, NS
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- Project Benefits
- Project Summary
- Project Components and Status
  - MF Generation Facility
  - LTA
  - LIL and SOBI Crossing
- Employment and Industrial Benefits
- MF Project Oversight
- Maritime Link
Project Benefits

• Meets domestic energy needs
• 98% renewable energy supply in NL
• Long-term rate stability
• Interconnection of North American grid
  o Access to export markets
  o Enhanced reliability
• Federal loan guarantee benefit to province of ~ $1 billion
• GHG reduction
Summary of Muskrat Falls Project

- Project sanctioned in December 2012
- Construction began in 2013
- Actual project progress at August 2015 was 33.5% versus planned progress of 43.3%, a variance of 9.8%
- New Project schedule baselines being established as Project budget was adjusted in September 2015. Milestone Dates are under review
- Power available from LIL in 2017, and from MF generation in 2018
- Current facilities capital budget is $7.65B (increase from $6.99B estimate in June 2014 and $6.2B at DG3).
- As of August 2015, additional interest and other financing costs estimated at $1.4B
- Project expenditures through September 2015 totaled $3.456B:
  - MF Generating Facility ($1.813B), LTA ($0.504B) and LIL ($1.138B)
MF Cost Summary

<table>
<thead>
<tr>
<th>Muskrat Falls Project: Sub Project</th>
<th>DG3</th>
<th>June 2014</th>
<th>September 2015</th>
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<tbody>
<tr>
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<tr>
<td>Labrador-Island Transmission Link</td>
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<td>$2.786B</td>
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<tr>
<td>Labrador Transmission Assets</td>
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<td>$0.877B</td>
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<tr>
<td>Muskrat Falls Capital Cost Budget Total</td>
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<td>$6.99B</td>
<td>$7.65B</td>
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</tbody>
</table>

- **Cost Drivers**
  - Competitive market factors
  - Design changes during construction
  - Contractor performance and additional project management
## Summary – Project Schedule

### August 2015 Oversight Committee Report

<table>
<thead>
<tr>
<th>Muskrat Falls Project: Sub Project</th>
<th>August 2015</th>
<th>Variance June 2015</th>
<th>Variance March 2015</th>
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<tr>
<td></td>
<td>Planned Schedule Progress</td>
<td>Actual Schedule Progress</td>
<td>Variance</td>
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<tr>
<td><strong>Muskrat Falls Generating Facility</strong></td>
<td>48.8%</td>
<td>34.8%</td>
<td>-14.0%</td>
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<tr>
<td><strong>Labrador-Island Transmission Link</strong></td>
<td>33.4%</td>
<td>27.1%</td>
<td>-6.3%</td>
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<tr>
<td><strong>Labrador Transmission Assets</strong></td>
<td>57.1%</td>
<td>51.8%</td>
<td>-5.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>43.3%</td>
<td>33.5%</td>
<td>-9.8%</td>
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</tbody>
</table>
Muskrat Falls Project (MFP) Components

Muskrat Falls Generating Facility

- 824 megawatt (MW) hydroelectric development at Muskrat Falls

Labrador Transmission Assets (LTA)

- Two 315 kilovolt (kV) High Voltage alternating current (HVac) transmission lines between Muskrat Falls and Churchill Falls

Labrador-Island Transmission Link (LIL)

- 1,100 km long High Voltage direct current (HVdc) transmission line between Muskrat Falls and Soldiers Pond

* Maritime Link is separate from MFP
Muskrat Falls Generating Facility

- 824 MW hydroelectric generation facility on lower Churchill River
- ~30 km west of Happy Valley-Goose Bay
- Includes two dams and a powerhouse
- Second-largest hydroelectric facility in Atlantic Canada and the province when complete
- 560,000 m³ of concrete is required to build the structures at Muskrat Falls – equivalent to 3 Hebron gravity-based structures (GBS)
- Powerhouse structure will be taller than the Confederation Building
- Turbine efficiency at Muskrat Falls will be one of the highest ever obtained in North America
Muskrat Falls Generating Facility
Muskrat Falls Generating Facility – Current Status

• As of August 2015, actual progress for the facility was 34.8% compared to planned progress of 48.8%

• Variance mainly due to:
  o a change in the North Spur Works Ready for Diversion Milestone from November 2015 to September 2016
  o progress on the Powerhouse and Intake continuing to fall behind Astaldi’s original schedule
  o progress on the Reservoir Preparation slowing

• Stabilization of North Spur is progressing well; geotechnical conditions are as expected

• Discussions are ongoing with Astaldi to determine timelines for completing remaining work on Powerhouse and Intake

• Critical Path for River Diversion in 2016 remains on track, however, risk of delays are high due to powerhouse concrete placement rates

• Focus now on installing Spillway Gates in preparation for River Division in 2016 which is on the Critical Path
North Spur, Powerhouse and Spillway
Labrador Transmission Assets

• Two 315kV HVac transmission lines from Muskrat Falls to Churchill Falls, ~ 250km each
• New switchyard at Churchill Falls and connecting to an extension to the existing 735kV switchyard
• New switchyard at Muskrat Falls
Labrador Transmission Assets – Current Status

• As of August 2015, actual progress on the LTA was 51.8% compared to planned progress of 57.1%
• Slippage mainly due to transmission line installation
• Challenging geotechnical conditions and spring thaw caused severe working conditions, resulting in temporary lay-offs
• In September, work continued on foundation assembly and installation, tower assembly and erection, and conductor stringing
• Civil works and building services at MF switchyard continued with all transformer units shipped and arriving this fall
• First two units for CF switchyard arrived in September
AC Transmission Line from Muskrat Falls to Churchill Falls
Labrador-Island Transmission Link

• HVdc transmission system will include:
  o 1,100 km long, 60 m wide right-of-way running from central Labrador, crossing the Strait of Belle Isle (subsea cable), and extending to Avalon Peninsula
  o Converter station at Muskrat Falls and Soldiers Pond, switchyard and synchronous condenser at Soldiers Pond, and electrodes at L’Anse au Diable and Dowden’s Point
  o Approximately 4,500 towers, 460,000 insulators and 6,000,000 meters of conductor
Labrador-Island Transmission Link – Current Status

• As of August 2015, actual progress was 27.1% compared to planned progress of 33.4%

• Slippage due to challenging geotechnical conditions and spring thaw causing severe working conditions and resulting in temporary lay-offs

• Right-of-way clearing, foundation assembly and installation, and tower assembly and erection continuing

• The first HVdc transmission tower for southern Labrador was erected in Forteau in September

• Construction commenced in September on the synchronous condenser building at Soldiers Pond

• In October 2015, conductor stringing for the transmission line began
Labrador-Island Transmission Link – Strait of Belle Isle Crossing (SOBI)

- 35km marine cable crossing connecting transmission line from Forteau, Labrador to Shoal Cove, Newfoundland
- Includes 3 subsea marine cables along the seabed and 7 land cables
- Two of the three land cables for Shoal Cove were installed in September and land cables for Forteau arrived in September
- Installation of land cables will be completed this fall
- Following 3 years of manufacturing in Japan, the last of the three marine cables was completed in October 2015
- Marine cables will be placed along the sea floor and covered by rock berms to protect against marine traffic
- Installation is scheduled for 2016
SOBI Marine Cable and LIL
Employment and Industrial Benefits

• In September 2015:
  o 5,383 people were working on all Project components
  o 84% of the total persons employed were from NL
  o 4,358 people were working in Labrador – 1,230 were Labrador residents of which 489 self-identified as a member of a Labrador Aboriginal group
  o 640 women were working on all project components, 589 of which were NL residents

• Since project sanction, over $975M had been spent with NL-based companies

• An estimated $9M per week returned to provincial economy through local business, employment and wages
Muskrat Falls Project Oversight

- **Nalcor Oversight** – Board of Directors, internal audit committee and external independent auditor

- **NL Government Oversight** – Muskrat Falls Project Oversight Committee composed of senior officials from NR, FIN, JPS, Executive Council, and chaired by the Clerk

- **Independent Engineer** – MHW Canada Inc. retained to ensure compliance with terms of Federal Loan Guarantee. In place for construction and into operations phase
Maritime Link (ML)

- In conjunction with the MF Project, the ML will export (and import as appropriate) hydroelectricity from NL to NS
- The ML includes ~350 km of overland transmission line and two subsea cables spanning 170 km beneath the Cabot Strait with a 500 MW capacity
- It will be owned and operated by NSPML, a subsidiary of Emera NL. After 35 years, ownership transfers to Nalcor. The asset projected life is 50 years
- In exchange for building the ML and providing Nalcor with transmission access through NS, Emera will receive approximately 20% of the energy from MF over its 50 year life (delivered over first 35 years of ML)
- As of June 2015, the total project cost estimate is $1.577B, including escalation and contingency amounts
- Commissioning and first power forecasted for 2017
TAB 3
Newfoundland Labrador

NL Electricity Rates and the Muskrat Falls Project
NL Electricity System

- Four distinct electricity systems
  - Island Interconnected System (IIS)
  - L’Anse Au Loup System
  - Labrador Interconnected System (LIS)
  - Isolated Rural Diesel systems on Island and in Labrador

- Three primary customer rate classes
  - Domestic (residential)
  - General Service (business, municipalities, hospitals, schools)
  - Industrial (NARL, Kruger, Vale)
Electricity Rates

- Island interconnected domestic bills increased from 2001 to 2015 by approximately 41% (or 2.9% per year) nominally based on average monthly usage of 1,517 kWh
- Increase in the number of households and new commercial and industrial developments
- 85% of new homes built 2002 since are heated by electricity
- Demand is expected to continue to rise
- Electricity rates will increase with or without Muskrat Falls
- Increases will continue up to Muskrat Falls in-service
General Rate Application

- NLH filed amended an amended General Rate Application (GRA) with the PUB on November 10, 2014 seeking rate increases based on 2015 forecast of costs. Average proposed rates impacts at that time included:
  - IIS and L’Anse au Loup system retail customer increases of 2.8% and 2.6%, respectively
  - Island isolated diesel system domestic and GS customer increases of respectively 7.1% and 18.5-19.2%.
  - Labrador isolated customer increases of 11.4% for domestic and 18.5-19.2% for GS. (includes Northern Strategic Plan subsidy).
  - LIS retail rates increases of 1.9%.
- Interim rates were set on July 1, 2015 to allow NLH to begin recovering costs proposed in GRA. The PUB will finalize rates at conclusion of GRA.
General Rate Application

- Key pressures on increasing rates include:
  - Required purchase of new assets
  - Maintenance required for aging assets
  - Decline in fuel efficiency at Holyrood since 2007 which requires more fuel to generate electricity
  - NLH’s higher rate of return on equity of 8.8%, an increase from 4.465% in 2006.
  - Higher cost of fuel compared to 2007.
- The GRA hearings are ongoing, with a decision expected in early 2016.
- Implementation of rates will likely occur by July 1, 2016.
## Current and Proposed Electricity Rates

<table>
<thead>
<tr>
<th></th>
<th>Rates before GRA (Cents/ kWh)</th>
<th>Interim Rates in effect since July 1, 2015 (Cents/ kWh)</th>
<th>Proposed Rates in the Amended GRA (Cents/ kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Island Interconnected</strong></td>
<td></td>
<td></td>
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<tr>
<td>Domestic</td>
<td>13.0</td>
<td>12.4</td>
<td>13.4</td>
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<tr>
<td>General Service (GS)</td>
<td>9.7-12.3</td>
<td>9.0-11.7</td>
<td>10.0-12.7</td>
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<tr>
<td>GS (GS over 1000kVa-0-100 kW)</td>
<td></td>
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<tr>
<td>Industrial</td>
<td>7.0</td>
<td>7.6</td>
<td>8.9</td>
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<tr>
<td><strong>Labrador Interconnected</strong></td>
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<tr>
<td>Domestic</td>
<td>4.7</td>
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<td>4.7</td>
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<tr>
<td>GS (GS over 1000kVa-0-10kW)</td>
<td>2.0-6.2</td>
<td>2.0-6.2</td>
<td>2.0-6.3</td>
</tr>
<tr>
<td>Industrial</td>
<td>4.3</td>
<td>2.5</td>
<td>2.5</td>
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<tr>
<td><strong>L'Anse au Loup</strong></td>
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<tr>
<td>Domestic</td>
<td>12.9/7.9**</td>
<td>12.3/7.5**</td>
<td>13.3/8.1**</td>
</tr>
<tr>
<td>GS (0-100kW/110-1000kVa)</td>
<td>11.5-12.9</td>
<td>10.8-12.4</td>
<td>11.8-13.3</td>
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<tr>
<td><strong>Island Isolated</strong></td>
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<tr>
<td>Domestic</td>
<td>14.6</td>
<td>14.0</td>
<td>15.6</td>
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<tr>
<td>GS (0-10kW/ 10+ kW)</td>
<td>19.9/22.1</td>
<td>18.8/20.9</td>
<td>23.6/26.3</td>
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<td><strong>Labrador Isolated</strong></td>
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<tr>
<td>Domestic</td>
<td>13.9/6.6**</td>
<td>13.3/6.5**</td>
<td>14.9/7.4**</td>
</tr>
<tr>
<td>GS (0-10kW/10+kW)</td>
<td>19.4/21.4</td>
<td>18.4/20.3</td>
<td>23.0/25.5</td>
</tr>
</tbody>
</table>

* These rates are average rates for each group, which include energy rates as well as demand and basic monthly charges where appropriate. Individual impacts vary with consumption level. HST is excluded.

** These rate impacts factor in Government’s NSP subsidy provided to domestic customers of L’Anse au Loup and Labrador Isolated Diesel Systems.
Muskrat Falls Project (MFP)

- MFP transmission and generation are scheduled to enter service in 2017 and 2018, respectively.
- NLH will need higher revenue to meet its financial obligations under the Power Purchase Agreement with Muskrat Falls.
- NP and NLH Island Interconnected and isolated customers’ electricity rates will need to increase in 2018 to cover MF costs.
- The PUB does not approve MFP costs in rates as directed in Bill 61.
Present Domestic Rate Projections

- Current Forecast
- June 2014 Forecast
- DG3 Forecast (w/ HST@15%)
- DG3 Forecast (older tax regime)


Cost Increase:
- 2015: 20.0 c/kWh
- June 2014: 19.5 c/kWh
- Tax Increases: 16.3 c/kWh

Prices:
- 2015: 20.0 c/kWh
- 2016: 19.5 c/kWh
- 2017: 17.8 c/kWh
- 2018: 16.3 c/kWh
Effect on Monthly Bills (Average Island Customer)

*Based on 1,517 kWh average monthly consumption*