Re: Your request for access to information under Part II of the Access to Information and Protection of Privacy Act (File # NR-63-2016)

I’m writing in response to your request to the Department of Natural Resources for access to the following records/information:

All briefing notes, records and correspondence related to Hydro Quebec from July 1st and present.

I am pleased to inform you that a decision has been made by the Department of Natural Resources, confirmed by the Deputy Minister, 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):

27 Cabinet confidences

(1) In this section, "cabinet record" means

(a) a record created during the process of developing or preparing a submission for the Cabinet

(2) The head of a public body shall refuse to disclose to an applicant

(a) a cabinet record

(b) information in a record other than a cabinet record that would reveal the substance of deliberations of Cabinet
29 Policy advice or recommendations

(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

30 Legal advice

(1) The head of a public body may refuse to disclose to an applicant information that is subject to solicitor and client privilege or litigation privilege of a public body

(b) that would disclose legal opinions provided to a public body by a law officer of the Crown

34 Disclosure harmful to intergovernmental relations or negotiations

(1) The head of a public body may refuse to disclose information to an applicant if the disclosure could reasonably be expected to

(a) 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

(iii) the government of a foreign state

(b) reveal information received in confidence from a government, council or organization listed in paragraph (a) or their agencies

35 Disclosure harmful to the financial or economic interests of a public body

(1) The head of a public body may refuse to disclose to an applicant information which could reasonably be expected to disclose

(b) financial, commercial, scientific or technical information that belongs to a public body or to the government of the province and that has, or is reasonably likely to have, monetary value

(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

(f) 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

39 Disclosure harmful to business interests of a third party

(1) The head of a public body may refuse to disclose to an applicant information

(a) that would reveal commercial, financial, labour relations, scientific or technical information of a third party

(b) that is supplied, implicitly or explicitly, in confidence

(c) harm significantly the competitive position or interfere significantly with the negotiating position of the third party,
result in similar information no longer being supplied to the public body when it is in the public interest that similar information continue to be supplied.

result in undue financial loss or gain to any person

40 Disclosure harmful to personal privacy

(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.

Additionally, several excerpts have been redacted under section 5.4 of the Energy Corporation Act. 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.

This file resulted in the capture of many records that make up over 450 pages in total. It should be noted that while each individual record contains a reference to Hydro-Quebec, many of these references are incidental in nature, i.e., Hydro-Quebec was not the primary subject.

Right to Request Review/File Appeal

As set out in section 42 of the Act you may ask the Information and Privacy Commissioner to review the department's decision to provide partial access to the requested information. 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 request should identify your concerns with the department's response and why you are requesting a review.

The request for review may be addressed to the Information and Privacy Commissioner 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
Pursuant to section 52 of the Act, you may also appeal directly to the Supreme Court Trial Division within 15 business days after receiving the department’s decision.

Response to be Made Public

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 Completed Access to Information Requests 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 729-3214 or by e-mail at andreamarshall@gov.nl.ca. Alternatively, please contact Rod Hynes, the department’s primary access to information coordinator at 729-0463 or rhynes@gov.nl.ca.

Sincerely,

Andrea Marshall
ATIPP Coordinator
Meeting Note
Department of Natural Resources
Iron Ore Company of Canada, Minister and NR Representatives
July 18, 2016 at 10:30 am
Minster’s Boardroom, Natural Resources Building

Attendees:
Thierry Martel, VP Technical Services, Iron Ore Company of Canada
JC Lalumiere, VP HR, Iron Ore Company of Canada
Heather Bruce-Velitch, Dir. Communications & External Relations, Iron Ore Company of Canada

Honourable Siobhan Coady, Minister of Natural Resources
Mr. Charles Bown, Deputy Minister of Natural Resources
Staff as required

Purpose of Meeting:

Background:

- IOC first began mining iron ore in the Menihek / Schefferville area of Quebec and Labrador in 1954, expanding to Labrador West in the early 1960s.

- IOC’s Carol Project, located in Labrador City, is the second largest iron ore producer in Canada and is the largest private employer in Newfoundland and Labrador with approximately 1,700 employees working at the mine, concentrator, and pellet plant.

- The mine can produce up to 23.3 million tonnes of pellets and iron ore concentrate annually; and plans to produce until the year 2079. The pellet plant has six production lines with a total capacity of 12.5 million tonnes per year. IOC varies the proportion of its concentrate production made into pellets in response to market conditions.

- IOC’s active mining areas are operated under a sub-lease agreement with the Labrador Iron Ore Royalty Corporation (LIORC). LIORC holds 15.1% equity ownership in IOC and, as owners of the mineral rights, receives a 7% gross sales royalty plus a 10 cent per tonne commission on all shipments. Other IOC owners are Mitsubishi Corp. (26.2%) and the mine operator, Rio Tinto PLC (58.7%).

- Rio Tinto is one of the largest global mining companies and the majority of their iron ore production is from very low cost mines in Western Australia. Rio Tinto's share of IOC's sales is only 3.9% of Rio's total sales volume.

- On June 21, 2016 Rio Tinto announced a new organizational structure that moved IOC out of Iron Ore to an Energy and Minerals Division including coal, uranium, salt, borates and titanium dioxide properties.

- Rio Tinto has divested a number of properties recently including a transfer of its 53.8% shareholding in Bougainville Copper Limited and its interest in Blair Athol coal mine. Rio Tinto decided to cease development of its $20 billion Simandou iron ore mine in west Africa. This is an attempt to drive performance under the new chief executive Jean-Sébastien Jacques.
• An expansion program carried out from 2011 to 2014 increased production capacity at IOC from 17.5 to 23.3 million tonnes per year. Up to mid-2014, production did not increase despite the additional capacity. However, in 2015 the company shipped 18 million tonnes versus an average of 14 million tonnes from 1999 to 2014. S. 39(1)(a)(ii), S. 39(1)(b), S. 39(1)(c)(ii)

• The January iron ore shipment forecast provided to NR by IOC for 2016 is and 2017 to 2020 shipments are forecast at approximately and. S. 39(1)(a)(ii), S. 39(1)(b), S. 39(1)(c)(ii)

• IOC has significant fixed costs; increasing mine production reduces the unit cost per tonne. A Rio Tinto executive stated in late 2015 that to reduce costs IOC should increase production as close to nameplate capacity as possible and that IOC is expected to be at or near capacity by 2017.

• IOC is a high cost producer compared to large mines in Australia and Brazil. These mines exploit high grade ore that does not require any processing other than crushing and sizing. IOC’s high costs are due to winter weather; lower grade and harder iron ore that requires grinding and concentrating; and the greater distance required for shipping to markets in Asia and the Middle East. These higher costs are partially offset by the relatively higher iron grade in IOC final product and by the weakened Canadian dollar.

• Rio Tinto stated in October 2015 that IOC’s cost is currently $US 36 per tonne and that $US 30 should be achievable in 2016.

• The 1938 Act for the Confirmation of an Agreement between the Government and Labrador Mining and Exploration Company Limited provides IOC with preferential taxation and mineral rights not enjoyed by newer mines. IOC pays the province a royalty equal to 5% of its mining profits, while newer mines pay 16%. However, additional tax deductions available to newer mines, i.e. accelerated depreciation and processing allowance, can significantly reduce taxation in years with low profitability.

• In 2011 IOC’s rehabilitation and closure plan was accepted with a total estimated cost of The Minister accepted IOC’s financial assurance proposal S. 35(1)(d) S. 35(1)(d)

• IOC is fully compliant with the Mining Act. S. 35(1)(d)

• The development plan and rehabilitation and closure plan for the Wabush 3 open pit were approved / accepted by the Minister on July 5 2016. IOC’s proposal for financial assurance for the Wabush 3 open pit was accepted on July 12, 2016. Construction is permitted to begin once financial assurance is in place.

• In 2013, two Quebec-based Innu groups began a court action against IOC asserting that all of IOC’s past and present activities infringe upon their Aboriginal rights, and were undertaken without consultation. The groups are seeking damages of $900 million. A Supreme Court of
Canada decision handed down in October 2015 refused to dismiss the suit. An earlier Quebec Superior Court decision rejected IOC’s claim that the Innu had to sue government instead of the company.

- IOC has a resource development agreement in place with the Innu Nation of Labrador. The Labrador Innu support IOC’s activities in the region in exchange for business and employment opportunities and defined financial benefits.

### Agenda item #1: (Impact of Budget 2016 on IOC)

**Analysis**

- FIN has advised that the Province provides significant support to the mining industry through exemptions to the Gasoline tax, including exemptions for:
  - fuel used in equipment used directly in rock crushing, screening aggregates or producing asphalt but not gasoline used in auxiliary equipment such as trucks, power shovels, tractors, loaders and drills;
  - gasoline used in locomotives;
  - gasoline used in equipment used directly in the generation of electricity to be fed into a public or private grid; gasoline consumed on an exploration site in equipment used for the exploration of a mineral, other than aircraft and equipment required to be licensed under the Highway Traffic Act before the commencement of commercial production;
  - gasoline consumed in mining equipment before the commencement of commercial production in an area contained within a mining lease;

- FIN has advised that with respect to the Corporate Income Tax rate increase, the tax applies "below the line" on profits. It does reduce profits but does not increase operating costs. These rates remain competitive within the eastern region of the country.

- Rio Tinto’s reorganization has grouped IOC in with other assets that are outside of its core business. Some analysts have speculated that this may be part of a spin-off plan similar to BHP’s creation of South32 including its manganese, coal, alumina and nickel assets last year.

- IOC has been negatively affected by the significant decline in the price of iron ore. Prices reached a peak of US$190/tonne in late 2010, remained over $100/tonne until 2013 when they entered a period of consistent decline. Current iron ore prices are trading around $50/tonne.
• Decreasing input prices (i.e. fuel, exchange rate, etc.), in addition to increased production, have assisted in reducing costs at the mine however, IOC has stated that at an iron ore market price of $40/tonne the company is losing money and is at risk.

• In December 2015, IOC delayed the internal process for approval to start development of the Wabush 3 project in an effort to limit the amount of capital spend in 2016. IOC had planned to submit a revised approval request to the Board in Q2 2016.

• In a May 2016 employee memo IOC stated that the decision to approve Wabush 3 would be deferred while a full review of IOC's performance was conducted. This was based on a number of factors including lower cash generation, shortfall in production, and failure to ship the quantity and quality of product to customers as scheduled. The Wabush 3 project remains critical to the future viability of the company. S. 29(1)(a)

• IOC has stated that it is important that it continues to reduce its cost of production to ensure viability. S. 29(1)(a)

• IOC has been profitable over the last 10 years, benefitting from high iron ore prices. IOC ended 2015 with a small loss S. 29(1)(a)

Potential Speaking points

Proposed Actions
• None at this time.

Agenda Item #2: (2015 increase in IOC power rates)
• Upon the expiry of IOC’s long-term power contract, beginning in 2015, the company is charged higher power rates based on the Labrador Industrial Rates (LIR) policy

Analysis
• Prior to 2015, IOC incurred a low overall cost for hydro power (0.9 cents per kWh in 2014) from Churchill Falls primarily as a result of a long-term contract. The previous energy charges to IOC were from both Twinco and Newfoundland and Labrador Hydro (NLH).

• With the 1961 Twinco sub-lease and associated arrangements between CFLCo, NLH and Twinco expiring on January 1, 2015, government announced the Labrador Industrial Rates
(LIR) policy in 2012. This resulted in increased costs to IOC but still provided highly competitive industrial power rates.

- The current LIR policy requires NLH to provide industrial class customers, including the mining sector, with a 239 MW low-cost Development Block of power, supplemented by a market-priced Market Block of power to meet any industrial growth.

- Given the current market conditions (and closure of Wabush Mines), IOC’s power is now taken entirely from the low-cost Development Block. The Development Block limit of 239MW is set to reflect the average consumption level of the large industrial customers around 2012.

- The Development Block pricing was set at the amount required by CFLCo to recover its costs and allow for the financing of long term maintenance and asset renewal plan. This is intended to improve reliability and guarantee the integrity of the plant at the expiry of the 1969 contract with Hydro-Quebec (HQ) in 2041.

- The cost of electricity for industrial users is made up of the cost of generating electricity (which relates to the energy charge) and the cost of ensuring transmission capacity is available to provide electricity when needed (which relates to the demand charge).

- The 2016 rate for IOC based on forecast electricity usage will average 2.55 cents per kWh, or about half the 2016 HQ Large Power Rate (L-Rate).

- The HQ L-Rate for 2016 is twice the average LIR rate primarily due to a much higher L-Rate demand charge. The HQ L-Rate demand charge is $12.87 per kW less a 20% "Economic Development Rate" discount for eligible customers for a total of $10.30 per kW compared to the $1.68 per kW demand charge under LIR policy. The L-Rate Energy Charge is 3.26 cents per kWh less the 20% discount for eligible customers for a total of 2.61 cents per kWh compared to 2.27 cents per kWh LIR Development Block Energy Charge.

- HQ has committed to eliminating the Economic Development Rate by 2024. This reduction will be diminished by 5 % points a year over the final three years.

- The LIR Market Block Energy Charge (for any power requirements above the Development Block) is 3.89 cents per kWh, slightly above the L-Rate Energy Charge. As noted above, Labrador industrial customers are not presently buying power at Labrador Market Block rates as surplus electricity is available from the Development Block.

- In June 2015, IOC approached government with a request to reduce power costs as the increased electricity rates related to the expiry of the previous contract were burdening operations. S. 35(1)(d), S. 35(1)(f)
CFLCo’s asset maintenance plan has been benchmarked against work planned at the Bonneville Power Authority (which operates a similar power plant in Washington state) and at Hydro-Quebec (which operates the comparable Robert-Bourassa plant in northern Quebec).

Agenda Item #3: (IOC Labour Relations)
- Update on the current labour relations climate at IOC.

Analysis
- On January 6, 2016, it was report by several news outlets that up to 150 workers were issued three-day suspensions due to missing shifts during the Christmas season. The union stated that some of the workers were off for legitimate reasons and that a large number of the grievances have been filed.

- In a January 2016 memo IOC stated that over the past several years there had been a production loss during the year-end holiday and peak vacation seasons. This year employees were asked to work scheduled shifts in order to protect the business. IOC stated that a small number of employees had justifiable reasons for missing work and leaders followed normal processes for handling these types of absences. Another small number missed shifts by choice, despite being forewarned that discipline would likely result and these have resulted in suspensions.
• IOC stated that mine production grew by 29% and concentrate production improved by 49% over December of last year and for a business that has posted financial losses this year, the improved attendance and increased production is critical.

• May 2016 IOC memo reported that was poor attendance in the mine through March and April. The result of skipped shifts left trucks idle and production well below demonstrated capabilities. During the past 18 months IOC employees have demonstrated a willingness to change and perform at a much higher level. This performance has taken a step backwards creating doubt about IOC’s ability to sustain improvements.

• In a July 15, 2016 story, CBC reported that the Steelworkers Union in Labrador City has accepted a proposal recommended by their union executive to create a temporary workforce, with 60% voting in favour. The union believes the agreement will lead to fewer outside contractors being hired to do jobs at the mine usually filled by union members. The new temporary workers won't be full-time hires, but will have access to dental and health coverage and to the union’s collective agreement after a probation period. This measure will be for a six-month trial period after which it will be reassessed by the union and IOC management.

Potential Speaking Point

S. 29(1)(a)

Proposed Actions
• None at this time.

Agenda Item #4: (Negotiations on Wabush 3 Benefits Plan)

Analysis
• The Wabush 3 Project is an expansion to IOC’s existing operations. It contains an estimated 744 million tonnes of iron ore and will allow flexibility in providing iron ore feed to its existing operations and maintain production rates. It provides a new source of iron ore which will extend the operating life of the mine from 2067 to 2079.

• Construction of Wabush 3 will occur in phases. Phase 1 construction is estimated to take between 8-12 months with other construction phases to continue over the life of the mine as required. Phase 1 will employ approximately 100 positions involving both existing IOC personnel and contractors, and includes site clearing, removal of overburden, drilling and blasting, establishment of infrastructure and utilities.

• The operations workforce is estimated at 76 persons and will be filled by IOC employees redeployed from other areas of the mine.

• IOC registered the Wabush 3 Project for environmental assessment (EA) in May 2013. An EIS was required and submitted in August 2014 and the project was conditionally released from EA in September 2015. One condition of EA release was the "development of a benefits plan that meets the approval of the Minister, prior to the commencement of site development activities".
NR has been negotiating a Benefits Plan with IOC for a number of months and draft plans have been exchanged. NR received the most recent draft from IOC on June 30, 2016 and is currently reviewing.

Potential Speaking Point

Proposed Actions

Prepared/approved by: K. Bradbury/A. Smith/R. McGrath/D. Liverman
Ministerial approval: Received from Hon.

July 15, 2016
Information Note
Department of Natural Resources

Title: [Redacted]

Issue: [Redacted]

Background and Current Status:

Menihek Facilities and Power Contract with HQ:

- The 18.7 megawatt (MW) Menihek hydroelectric generating station (Menihek) and transmission system was built in 1952 to supply the iron ore mine (which closed in 1982) and town in Schefferville, Québec. In 2002, Newfoundland and Labrador Hydro (NLH) purchased Menihek and the associated 69 kilovolt (kV) transmission lines in Labrador from the Iron Ore Company of Canada.

- NLH sells Menihek electricity supply to Hydro Québec (HQ), which is responsible for the remaining transmission to the Schefferville region and for distribution and customer service in Québec. These Nalcor/HQ power arrangements are not regulated by the PUB. The Menihek Power Contract is for a term of 40 years with possibility for renewal by the parties. HQ currently pays capital costs (about $0.08/kWh), operating costs (about $0.11/kWh, and an energy rate escalated annually by Canadian CPI (about $0.03/kWh). [Redacted]
Analysis:

- It is also worth noting that as HQ shares in Menihek’s operating costs

Action Being Taken:

- 

Prepared/approved by: R. Bates with Mines Branch and Nalcor/

August 2, 2016
Information Note
Department of Natural Resources

Title: Nalcor Energy’s Second Quarter 2016 Financial Results

Issue: To provide an overview of Nalcor Energy’s Second Quarter (Q2) 2016 Financial Statements and Management’s Discussion and Analysis (MD&A), which will be released on August 11, 2016.

Background and Current Status:
• The Q2 2016 report includes results for Nalcor, its subsidiaries and its share of investments in joint arrangements. The following table provides key financial highlights.

<table>
<thead>
<tr>
<th>Q2 2016 Nalcor Consolidated Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the period from January 1 - June 30, 2016</td>
</tr>
<tr>
<td>Revenue (million $)</td>
</tr>
<tr>
<td>(Loss) Profit (million $)</td>
</tr>
<tr>
<td>Capital Expenditures (million $)</td>
</tr>
<tr>
<td>Electricity Sales (GWh)</td>
</tr>
<tr>
<td>NLH Regulated</td>
</tr>
<tr>
<td>Nalcor Energy Marketing</td>
</tr>
<tr>
<td>Churchill Falls</td>
</tr>
<tr>
<td>Oil production (bbls)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>As at</th>
<th>June 30, 2016</th>
<th>December 31, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Assets (million $)</td>
<td>13,042.3</td>
<td>12,321.7</td>
</tr>
<tr>
<td>Total Liabilities (million $)</td>
<td>9,638.6</td>
<td>8,536.1</td>
</tr>
<tr>
<td>Total Equity (million $)</td>
<td>3,787.2</td>
<td>3,455.6</td>
</tr>
<tr>
<td>Debt to capital</td>
<td>62.5%</td>
<td>64.6%</td>
</tr>
</tbody>
</table>

• Nalcor’s Q2 profit of $8.4 million, an increase of $16.2 million over the same period in 2015. This is due primarily to interim rates at Hydro Regulated, higher oil production and reduced operating costs. Profits for the first 6 months of 2016 increased by $14.9 million from the same period in 2015, for the same reasons.

• Capital expenditures, excluding the Maritime Link, totaled $1.2 billion from January 1 – June 30, 2016. This represents an increase of $176 million, related primarily to Muskrat Falls’ expenditures.

• Nalcor’s total assets have grown from $12,321.7 million as of December 31, 2015 to $13,042.30 million as of June 30, 2016, primarily related to capital expenditures related to the development of Muskrat Falls.

• Nalcor’s debt to capital ratio was 62.5% as at June 30, 2016, a marginal improvement from December 31, 2015 when it was 64.4%. 
Business Segment Profit – Q2 2016 and Q2 2015

<table>
<thead>
<tr>
<th>(millions of dollars)</th>
<th>2016</th>
<th>2015</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydro Regulated</td>
<td>(3.0)</td>
<td>(20.7)</td>
<td>17.7</td>
</tr>
<tr>
<td>Churchill Falls</td>
<td>2.3</td>
<td>4.6</td>
<td>(2.3)</td>
</tr>
<tr>
<td>Oil and Gas</td>
<td>11.6</td>
<td>2.3</td>
<td>9.3</td>
</tr>
<tr>
<td>Energy Marketing</td>
<td>(1.1)</td>
<td>7.5</td>
<td>(8.6)</td>
</tr>
<tr>
<td>Bull Arm Fabrication</td>
<td>5.0</td>
<td>4.2</td>
<td>0.8</td>
</tr>
<tr>
<td>Phase 1 Lower Churchill Project</td>
<td>0.4</td>
<td>(0.3)</td>
<td>0.7</td>
</tr>
<tr>
<td>Corporate and Other Activities</td>
<td>(7.0)</td>
<td>(5.8)</td>
<td>(1.2)</td>
</tr>
<tr>
<td>Inter-segment</td>
<td>(0.2)</td>
<td>0.4</td>
<td>(0.6)</td>
</tr>
<tr>
<td>Profit for the period</td>
<td>8.4</td>
<td>(7.8)</td>
<td>16.2</td>
</tr>
</tbody>
</table>

**Hydro Regulated (Hydro)**

- Hydro’s loss for Q2 2016 was $3.0 million. This compares to a loss of $20.7 million for the same period in 2015. Hydro received interim rates on July 1, 2015, which helped the company reduce its losses. Hydro is still waiting on approval of its 2013 General Rate Application.

- Hydro’s electricity sales for Q2 2016 were 1,717.3 GWh compared to 1775.7 GWh in Q2 2015, a decrease of 58.42 GWh from the previous year due to less purchases from Exploits due to lower hydrology production, and partially offset by higher co-generation purchases.

**Churchill Falls**

- Churchill Falls Q2 revenue decreased by $1.2M from Q2 2015 due to lower energy sales to Hydro-Quebec, partially offset by additional sales to Hydro. Operating costs for Q2 2016 increased by $0.8 million due to an increase in legal costs.

- The $0.3 million increase in depreciation and amortization for the quarter was due to increased levels of investment in property, plant and equipment.

**Oil and Gas**

- Oil and Gas’ revenue increased by $20.3 million for Q2 2016 over Q2 2015 due to an increase in HSE production volumes. Total oil production increased by 416,738 barrels compared to Q2 2015. The Q2 2016 increase was partially offset by a reduction in seismic sales and a lower average Dated Brent price per barrel. Total profit for the period increased by $9.3 million from Q2 2015.

- The production costs for the quarter increased by $3.2 million primarily due to an increase in production volumes compared to Q2 2015. The depreciation, depletion and amortization expense was up by $7.3 million to $10.8 million from Q2 2015 primarily due to an increase in depletion associated with HSE due to higher production volumes compared to Q2 2015.

**Energy Marketing**

- Energy Marketing’s Q2 revenue dropped by $1.4 million from Q2 2015 due to lower electricity prices on export market sales. The decrease in price was partially offset by increased volumes of energy as mild weather in Labrador increased available energy for export. Decreased revenue was further offset by exchange rates.
• Overall, the realized export electricity price Q2 2016 was $21.62 (CAD/MWh), down from $29.89 (CAD/MWh), for the same period in 2015.

• In Q2 2016, approximately 47.9% of Energy Marketing’s revenue related to sales to industrial customers (2015 – 44.1%), 44.8% related to export sales (2015 – 50.0%) and 7.3% of revenues were derived from other sources (2015 – 5.9%).

**Bull Arm**

• Bull Arm revenue in Q2 2016 increased by $0.2 million Q2 2015 to $5.2 million, mainly due to a favourable foreign exchange on USD lease revenue.

• Revenue is primarily generated through leasing arrangements associated with large construction projects. The site is currently under lease to ExxonMobil Canada Properties until completion of the Hebron Project which is planned for 2017. Site project work consists of construction of the GBS platform, fabrication of the Living Quarters module, as well as other construction and fabrication activities related to the Hebron project.

**Lower Churchill Project (LCP)**

• Total capital expenditures increased by $65.8M for Q2 2016 compared to the same period in 2015. The total capital expenditures for LCP to March 31, 2016 is $5.5B, as follows:

<table>
<thead>
<tr>
<th>For the period April 1 – June 30 (millions of dollars)</th>
<th>2016</th>
<th>2015</th>
<th>2015 Total To Date 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muskrat Falls</td>
<td>267.5</td>
<td>199.7</td>
<td>2,444.6</td>
</tr>
<tr>
<td>Labrador Transmission Assets</td>
<td>35.8</td>
<td>93.7</td>
<td>675.6</td>
</tr>
<tr>
<td>Labrador-Island Link</td>
<td>248.8</td>
<td>178.1</td>
<td>1,787.8</td>
</tr>
<tr>
<td>Nalcor facilities capital costs</td>
<td>552.1</td>
<td>471.5</td>
<td>4,908.0</td>
</tr>
<tr>
<td>Capitalized interest and financing costs¹</td>
<td>42.4</td>
<td>36.5</td>
<td>418.6</td>
</tr>
<tr>
<td>Class B Limited Partnership Unit Interest</td>
<td>5.6</td>
<td>1.7</td>
<td>31.5</td>
</tr>
<tr>
<td>Total capital costs for Nalcor project components</td>
<td>600.1</td>
<td>216.3</td>
<td>5,358.1</td>
</tr>
<tr>
<td>Maritime Link</td>
<td>113.3</td>
<td>94.0</td>
<td>877.6</td>
</tr>
<tr>
<td>Total capital expenditures</td>
<td>713.4</td>
<td>1,199.3</td>
<td>6,235.7</td>
</tr>
</tbody>
</table>

¹ Excludes $59.4 million of allowance for funds used during construction on Nalcor’s Class A limited partnership units in the LIL LP that are eliminated upon consolidation.

**Analysis:**

• The Phase II Investigation and Hearing into Supply issues and Power Outages on the Island Interconnected System began in 2016. The focus of this proceeding is on the implications of the interconnection with Muskrat Falls on the reliability and adequacy of the Island Interconnected system. The PUB has engaged Liberty to provide assistance related to this review. A schedule has been issued for the proceedings. Hearings were initially expected in September 2016, however, the new date is set for November 30, 2016. No date for the final report has been set.
On September 1, 2016, the Hydro-Quebec 2016 Renewal Contract comes into effect. As a result, Churchill Falls’ 2016 forecasted profit is lower than 2015 as the new power rate will be 20 per cent lower.

Energy Marketing is forecasting a lower profit for 2016 due to an increase in revenue associated with lower forecasted prices.

Oil and Gas is forecasting higher annual 2016 operating profit over 2015, primarily due to an increase in revenue due to higher forecasted production in 2016.

Nalcor forecasts 2016 total capital expenditures at $3.0 billion, with $2.4 Billion for the Muskrat Falls.

The Q2 report notes the change in executive leadership and Board of Directors in April 2016. It also notes the decision from the Quebec Court of Appeal on August 1, 2016 which upheld the 2014 Quebec Superior Court Decision on the pricing terms of the 1969 Churchill Falls Power Contract. The report states that Churchill Falls is reviewing the decision of the Court of Appeal to determine next steps.

**Action Being Taken:**
- The Q2 2016 Financial Statements and MD&A will be publically released on August 11, 2016.
- Natural Resources officials will continue to monitor Nalcor’s financial results.

**Prepared/Approved by:**
T. English

**Ministerial Approval:**

August 8, 2016
Information Note
Department of Natural Resources

Title: Nalcor Energy’s Second Quarter 2016 Financial Results

Issue: To provide an overview of Nalcor Energy’s Second Quarter (Q2) 2016 Financial Statements and Management’s Discussion and Analysis (MD&A), which will be released on August 11, 2016.

Background and Current Status:
- The Q2 2016 report includes results for Nalcor, its subsidiaries and its share of investments in joint arrangements. The following table provides key financial highlights.

<table>
<thead>
<tr>
<th>Q2 2016 Nalcor Consolidated Highlights</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (million$)</td>
<td>442.6</td>
<td>462.1</td>
</tr>
<tr>
<td>(Loss) Profit (million$)</td>
<td>36.4</td>
<td>21.5</td>
</tr>
<tr>
<td>Capital Expenditures (million$)</td>
<td>1,378.9</td>
<td>1,202.9</td>
</tr>
<tr>
<td>Electricity Sales (GWh)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NLH Regulated</td>
<td>4,358,479</td>
<td>4,538,677</td>
</tr>
<tr>
<td>Nalcor Energy Marketing</td>
<td>749</td>
<td>700</td>
</tr>
<tr>
<td>Churchill Falls</td>
<td>14,836</td>
<td>16,006</td>
</tr>
<tr>
<td>Oil production (bbls)</td>
<td>833,595</td>
<td>194,881</td>
</tr>
<tr>
<td>As at</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Assets (million $)</td>
<td>13,042.3</td>
<td>12,321.7</td>
</tr>
<tr>
<td>Total Liabilities (million $)</td>
<td>9,638.6</td>
<td>8,317,653.4</td>
</tr>
<tr>
<td>Total Equity (million $)</td>
<td>3,787.2</td>
<td>3,455.6</td>
</tr>
<tr>
<td>Debt to capital</td>
<td>62.5%</td>
<td>64.6%</td>
</tr>
</tbody>
</table>

- Nalcor’s Q2 profit of $8.4 million, an increase of $16.2 million over the same period in 2015. This is due primarily to interim rates at Hydro Regulated, higher oil production and reduced operating costs. Profits for the first 6 months of 2016 increased by $14.9 million from the same period in 2015, for the same reasons.

- Capital expenditures, excluding the Maritime Link, totaled $1.2 billion from January 1 – June 30, 2016. This represents an increase of $153.476 million, related primarily to Muskrat Falls’ expenditures.

- Nalcor’s total assets have grown from $12,321.7 million as of December 31, 2015 to $13,042.30 million as of June 30, 2016, primarily related to capital expenditures related to the development of Muskrat Falls.

- Nalcor’s debt to capital ratio was 62.5% as at June 30, 2016, a marginal improvement from December 31, 2015 when it was 64.64%.
### Business Segment Profit – Q2 2016 and Q2 2015

<table>
<thead>
<tr>
<th>(millions of dollars)</th>
<th>2016</th>
<th>2015</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydro Regulated</td>
<td>(3.0)</td>
<td>(20.7)</td>
<td>17.7</td>
</tr>
<tr>
<td>Churchill Falls</td>
<td>2.3</td>
<td>4.6</td>
<td>(2.3)</td>
</tr>
<tr>
<td>Oil and Gas</td>
<td>11.6</td>
<td>2.3</td>
<td>9.3</td>
</tr>
<tr>
<td>Energy Marketing</td>
<td>(1.1)</td>
<td>7.5</td>
<td>(8.6)</td>
</tr>
<tr>
<td>Bull Arm Fabrication</td>
<td>5.0</td>
<td>4.2</td>
<td>0.8</td>
</tr>
<tr>
<td>Phase 1 Lower Churchill Project</td>
<td>0.4</td>
<td>(0.3)</td>
<td>0.7</td>
</tr>
<tr>
<td>Corporate and Other Activities</td>
<td>(7.0)</td>
<td>(5.8)</td>
<td>(1.2)</td>
</tr>
<tr>
<td>Inter-segment</td>
<td>(0.2)</td>
<td>0.4</td>
<td>(0.2)</td>
</tr>
<tr>
<td>Profit for the period</td>
<td>8.4</td>
<td>(7.8)</td>
<td>16.2</td>
</tr>
</tbody>
</table>

**Hydro Regulated (Hydro)**

- Hydro’s loss for Q2 2016 was $3.0 million. This compares to a loss of $20.7 million for the same period in 2015. Hydro received interim rates on July 1, 2015, which helped the company reduce its losses. Hydro is still waiting on approval of its 2013 General Rate Application.

- Hydro’s electricity sales for Q2 2016 were 1,717.3 GWh compared to 1,775.7 GWh in Q2 2015, a decrease of 58.42 GWh from the previous year due to less purchases from Exploits due to lower hydrology production, and partially offset by higher co-generation purchases.

**Churchill Falls**

- Churchill Falls Q2 revenue decreased by $1.2M from Q2 2015 due to lower energy sales to Hydro-Quebec, partially offset by additional sales to Hydro. Operating costs for Q2 2016 increased by $0.8 million due to an increase in legal costs.

- The $0.3 million increase in depreciation and amortization for the quarter was due to increased levels of investment in property, plant and equipment.

**Oil and Gas**

- Oil and Gas’ revenue increased by $20.3 million for Q2 2016 over Q2 2015 due to an increase in HSE production volumes. Total oil production in Q2 2015 increased by 416,738 barrels compared to Q2 2015. The Q2 2016 increase was partially offset by a reduction in seismic sales and a lower average Dated Brent price per barrel. Total profit for the quarter increased by $9.3 million from Q2 2015.

- The production costs for the quarter increased by $3.2 million primarily due to an increase in production volumes compared to Q2 2015. The depreciation, depletion and amortization expense was up by $7.3 million to $10.8 million from Q2 2015 primarily due to an increase in depletion associated with HSE due to higher production volumes compared to Q2 2015.

**Energy Marketing**

- Energy Marketing’s Q2 2016 revenue dropped by $1.4 million from Q2 2015 due to lower electricity prices on export market sales. The decrease in price was partially offset by increased volumes of energy as mild weather in Labrador increased available energy for export. Decreased revenue was further offset by exchange rates.
• Overall, the realized export electricity price Q2 2016 was $21.62 (CAD/MWh), down from $29.89 (CAD/MWh), for the same period in 2015.

• In Q2 2016, approximately 47.9% of Energy Marketing’s revenue related to sales to industrial customers (2015 – 44.1%), 44.8% related to export sales (2015 – 50.0%) and 7.3% of revenues were derived from other sources (2015 – 5.9%).

**Bull Arm**

• Bull Arm revenue in Q2 2016 increased by $0.2 million Q2 2015 to $5.2 million, mainly due to a favourable foreign exchange on USD lease revenue.

• Revenue is primarily generated through leasing arrangements associated with large construction projects. The site is currently under lease to ExxonMobil Canada Properties until completion of the Hebron Project which is planned for 2017. Site project work consists of construction of the GBS platform, fabrication of the Living Quarters module, as well as other construction and fabrication activities related to the Hebron project.

**Lower Churchill Project (LCP)**

• Total capital expenditures for Nalcor project components increased by $90.466.8M for Q2 2016 compared to the same period in 2015. The total capital expenditures for LCP, excluding the Maritime Link, to June 30, 2016 is $5.45.8B, as follows:

<table>
<thead>
<tr>
<th>For the period April 1 – June 30 (millions of dollars)</th>
<th>2016</th>
<th>2015</th>
<th>2015-Total To Date 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Musk rat Falls</td>
<td>267.5</td>
<td>199.7</td>
<td>2,444.6</td>
</tr>
<tr>
<td>Labrador Transmission Assets</td>
<td>35.8</td>
<td>93.7</td>
<td>675.6</td>
</tr>
<tr>
<td>Labrador-Island Link</td>
<td>248.8</td>
<td>178.1</td>
<td>1,787.8</td>
</tr>
<tr>
<td>Nalcor facilities capital costs</td>
<td>552.1</td>
<td>471.5</td>
<td>4,908.0</td>
</tr>
<tr>
<td>Capitalized interest and financing costs¹</td>
<td>42.4</td>
<td>36.5</td>
<td>418.6</td>
</tr>
<tr>
<td>Class B Limited Partnership Unit Interest</td>
<td>5.6</td>
<td>1.7</td>
<td>31.5</td>
</tr>
<tr>
<td>Total capital costs for Nalcor project components</td>
<td>600.1</td>
<td>509.7246.3</td>
<td>5,358.1</td>
</tr>
<tr>
<td>Maritime Link</td>
<td>113.3</td>
<td>94.0</td>
<td>877.6</td>
</tr>
<tr>
<td>Total capital expenditures</td>
<td>713.4</td>
<td>603.74,199.3</td>
<td>6,235.7</td>
</tr>
</tbody>
</table>

¹ Excludes $59.4 million of allowance for funds used during construction on Nalcor’s Class A limited partnership units in the LIL LP that are eliminated upon consolidation.

**Analysis:**

• The Phase II Investigation and Hearing into Supply issues and Power Outages on the Island Interconnected System began in 2016. The focus of this proceeding is on the implications of the interconnection with Musk rat Falls on the reliability and adequacy of the Island Interconnected system. The PUB has engaged Liberty to provide assistance related to this review. A schedule has been issued for the proceedings. Hearings were initially expected in
September 2016, however, the new date is set for November 30, 2016. No date for the final report has been set.

- On September 1, 2016, the Hydro-Quebec 2016 Renewal Contract comes into effect. As a result, Churchill Falls’ 2016 forecasted profit is lower than 2015 as the new power rate will be 20 per cent lower.

- Energy Marketing is forecasting a lower profit for 2016 due to an increase in revenue associated with lower forecasted prices.

- Oil and Gas is forecasting higher annual 2016 operating profit over 2015, primarily due to an increase in revenue due to higher forecasted production in 2016.

- Nalcor forecasts 2016 total capital expenditures, excluding those related to the Maritime Link, at $3.0 billion, with $2.4 billion for the Muskrat Falls.

- The Q2 report notes the change in executive leadership and Board of Directors in April 2016. It also notes the decision from the Quebec Court of Appeal on August 1, 2016 which upheld the 2014 Quebec Superior Court Decision on the pricing terms of the 1969 Churchill Falls Power Contract. The report states that Churchill Falls is reviewing the decision of the Court of Appeal to determine next steps.

Action Being Taken:
- The Q2 2016 Financial Statements and MD&A will be publicly released on August 11, 2016.

- Natural Resources officials will continue to monitor Nalcor’s financial results.

Prepared/Approved by: T. English
Ministerial Approval: August 8, 2016
Information Note
Department of Natural Resources

Title: Federal, Provincial and Territorial Priority Energy Issues

Issue: To provide information regarding priority energy issues for federal, provincial and territorial (FPT) energy ministries over the past year which may be raised at the Energy and Mines Ministers Conference 2016 (EMMC)

Speaking Points:
• Newfoundland and Labrador’s priority remains the development of our energy resources in the most sustainable manner possible for the benefit of our residents and our neighbouring provinces.
• Newfoundland and Labrador has an abundance of clean energy resources, including the Lower Churchill Hydroelectric Project and our undeveloped wind resources. After the Muskrat Falls project is in service, about 98% of our electricity generation will be from clean energy sources, and Holyrood will be decommissioned.

Background and Current Status:
• At EMMC 2016, Ministers may have an opportunity to highlight their most important energy issues. This note provides high level background information on topics about which Ministers may discuss.

Federal & National Priorities / Issues:
• The mandate letter to the Minister of Natural Resources (NRCan) sets out the Liberal government’s top priorities for the energy sector. These include:
  o Work closely with provinces and territories to develop a Canadian Energy Strategy.
  o Work with the Minister of Innovation, Science and Economic Development to invest in clean technology producers.
  o Work with the Minister of Innovation, Science and Economic Development and other responsible ministers to support innovation and the use of clean technologies in our natural resource sectors.
  o Work with the Minister of Finance to explore opportunities to enhance existing tax measures to generate more clean technology investments, and engage with provinces and territories to make Canada the world’s most competitive tax jurisdiction for investments in the research, development, and manufacturing of clean technology.
  o Work with the Minister of Environment and Climate Change, the Minister of Fisheries, Oceans and the Canadian Coast Guard, and the Minister of Indigenous and Northern Affairs to immediately review Canada’s environmental assessment processes to regain public trust and introduce a new, fair processes.
  o Modernize the National Energy Board to ensure that its composition reflects regional views and has sufficient expertise in fields such as environmental science, community development, and Indigenous traditional knowledge.
Work in partnership with the United States and Mexico and the Minister of Environment and Climate Change and the Minister of Foreign Affairs to develop an ambitious North American clean energy and environmental agreement.

- The Government of Canada joined Mission Innovation in November 2015 with 20 other nations and the European Union as part of a global effort to accelerate clean energy innovation with the goal of making clean energy widely affordable. At the November 2015 inaugural Mission Innovation Ministerial, members committed to double government spending on research and development associated with clean energy and clean technologies over the next five years. Canada will increase its funding from $387 million in 2014-2015 to $775 million by 2020. Investments in clean energy and emission-reducing research and development are essential to growing the economy and protecting the environment as we transition to a low-carbon future.

- On January 27, 2016, the federal government announced new rules for assessing major resource projects based on five principles, including: better engagement with Canadians, conducting deeper consultations with Indigenous peoples, basing decisions on science, facts and evidence; and assessing GHG emissions associated with a project. The announcement also included interim measures for two pipeline projects already undergoing regulatory review by the National Energy Board (the Trans Mountain Expansion Pipeline Project and Energy East Pipeline Project). The new rules are the first step in a broader strategy to review the federal environmental assessment process.

- On February 12, 2016, Canada, the United States and Mexico signed the North American memorandum of understanding on climate change and energy collaboration (also, known as the Three Amigos). This agreement focuses on: bringing cleaner renewable energy onto the electricity grid; accelerating innovation in clean energy technologies; encouraging energy savings through improved energy efficiencies; advancing the competitiveness of carbon capture, use and storage; increasing resilience to climate change; and tackling methane and other emissions from oil and gas. The for the agreement positions North America as one of the world’s most dynamic and influential energy regions. It aims to strengthen energy security, and commits to collaboration on environmental stewardship.

- Budget 2016 provided $50 million over two years to NRCan to support the development of clean technologies for Canada’s oil and gas sector. Examples include next-generation extraction technology to reduce greenhouse gas emissions from oil sands operations, or innovations that reduce fresh water use or improve air quality. Supporting clean technology will improve the environmental performance of Canada’s oil and gas sector and will help address climate change while Canada transitions to a low-carbon economy over time.

- On June 22, 2016, NRCan announced that it is seeking proposals to access the Oil and Gas Clean Tech Program. Projects selected under the fund will demonstrate industry-led clean technologies that, once commercialized, could be more widely adopted across the oil and gas industry to improve environmental performance and help reduce greenhouse gas emissions both domestically and globally. It will help Canada meet its Mission Innovation commitment.

- On June 16, 2016, the National Energy Board (NEB) announced the start of the 21-month public review period for two pipeline projects - TransCanada’s Energy East Pipeline Project (Energy east) and Eastern Mainline Pipeline Project (Eastern Mainline). Energy East is a 4,500-kilometre pipeline proposed to carry 1.1-million barrels of crude oil per day from Alberta and Saskatchewan to refineries in Eastern Canada. Eastern Mainline will consist of approximately 279 km of new gas pipeline and related components to be constructed in four sections, beginning near Markham, Ontario and finishing near Brouseville, Ontario. About 203 km of the proposed 279 km pipeline would be installed adjacent to existing pipeline, railway and public highway rights-of-way. Once the review is complete, the NEB will make a recommendation to the Government on whether the projects are in the public interest. The
Government will then consider the NEB’s recommendation and make a final decision on the project. The first session was held on August 8, 2016, in Saint John, New Brunswick.

- Canada continues to deal with dropping oil prices driven by over-supply concerns, and the related downward pressure on the value of the Canadian dollar which the Bank of Canada says runs on a parallel track with the price of oil. In January, both the Canadian dollar and the price of oil hit a twelve-year low. On January 25, 2016, the West Texas Intermediate oil fell below $30 in North American trading. The lower dollar is seen as positive for manufacturing in Central Canada, making Canadian goods more affordable. CIBC economists predict that Canada will not see a return to $80 or $100 this decade.

**British Columbia’s Priorities / Issues:**

- On June 3, 2015, BC announced changes to its GHG emission reduction regulations to encourage more fleet operators to switch from diesel and gasoline to cleaner-burning natural gas to run their buses, trucks and marine vessels. The changes will allow utilities to expand incentives to fleet operators to convert to natural gas as their primary or secondary fuel, and advance the development of more natural gas fuelling stations.

- On October 30, 2015 BC stated it would provide $250,000 to support energy efficiency and clean energy projects in seven communities including solar power, biomass heating, and energy retrofits to local facilities. The funding is part of $1.3 million that will be provided under the new Community Energy Leadership Program over the next three years.

- On December 15, 2015, BC announced that it had become the 14th jurisdiction to sign on to the International Zero-Emission Vehicle (ZEV) Alliance. Members of the Alliance will strive to make all new passenger vehicles in their jurisdictions ZEVs by no later than 2050.

- In a final written submission to the NEB on January 11, 2016, BC announced it would not support Kinder Morgan’s proposed Trans Mountain Pipeline Expansion Project based on Kinder Morgan’s failure to prove it would meet stringent “world leading” oil spill safety requirements, meet legal requirements regarding aboriginal and treaty rights, and ensure that BC receives a fair share of fiscal and economic benefits. Trans Mountain is proposing an expansion of the existing 1,150-kilometre pipeline between Strathcona County (near Edmonton), Alberta and Burnaby, BC that would increase the nominal capacity of the system from 300,000 barrels per day, to 890,000 barrels per day. BC has the largest public charging infrastructure network and the second-highest per capita adoption of electric vehicles in Canada.

- BC is one of few Canadian provinces with a carbon tax. Implemented in 2008, The tax puts a price on carbon to encourage individuals, businesses, industry and others to use less fossil fuel and reduce their greenhouse gas emissions; send a consistent price signal; ensure those who produce emissions pay for them; and make clean energy alternatives more attractive. The carbon tax is revenue neutral, meaning every dollar generated by the tax is returned to British Columbians through reductions in other taxes.

**Alberta’s Priorities / Issues:**

- The Alberta Energy Regulator (AER) is undertaking a Regulatory Excellence Initiative. In 2014, the AER launched a project with the University of Pennsylvania Penn Program on Regulation (PPR) to help identify the key attributes of a “best-in-class” or an “excellent” regulator, understand how the AER can adopt these attributes and measure progress. On October 21, 2015, the AER received PPR's final report entitled “Listening, Learning, and Leading: A
Framework for Regulatory Excellence”. The AER is currently reviewing public feedback on the report. However, they have not provided a timeframe for project completion.

- AB’s climate change report released on November 22, 2015 includes plans for an economy-wide carbon tax, the phasing out of coal-fired power generation in the province by 2030, and a greenhouse gas emissions cap at 100 megatonnes. Other measures included broad programs to improve energy efficiency, support green technological innovations, reduce methane, and supports to ensure that families and small businesses are protected.

- On January 12, 2016, Premier Notley issued a statement on AB’s submission to the National Energy Board supporting the Trans Mountain Pipeline Expansion Project. The AB government stated the project is good for Albertans and good for all Canadians, and that it will create jobs, spur economic growth, and help fund AB’s transition to a greener, less carbon intensive economy on many levels.

- On January 29, 2016, Premier Notley announced AB’s new royalty framework based on the recommendations from a panel review of the royalty system which began last spring. The NDP ran on an election platform in 2015 that suggested Albertans were not receiving full and fair value because the province had one of the world’s lowest oil royalty rate structures. The panel concluded AB’s rates are comparable to other jurisdictions. The key points of the report of the panel were that Albertans are receiving their fair share and oilsands royalties won’t change; conventional oil and gas wells will pay a minimum royalty of five per cent of revenue until they have recovered costs; the system will reward the most efficient drillers; and AB markets will be developed for the use of natural gas.

- On Jun 09, 2016, AB announced it would establish an advisory panel to help launch energy efficiency and small-scale electricity generation programs in the province. The will be comprised of individuals with expertise and experience to provide advice for the newly created Energy Efficiency Alberta. Over the coming months, the advisory panel, chaired by Dr. David Wheeler, will speak to Albertans, Indigenous organizations, and stakeholders to determine the types of energy savings programs that Energy Efficiency Alberta can deliver in the short and medium-term.

- On July 13, 2016, AB announced the establishment of an Oil Sands Advisory Group (OSAG) composed of members from industry, environmental organizations, and Indigenous and non-Indigenous communities to advise government on the oil-sands aspects of its Climate Leadership Plan and ensure that its initiatives are effective and widely supported.

- AB announced that it launched a court action on July 28, 2016 to protect power consumers from paying costs of the “Enron clause.” It purports to give power companies the option to hand off unprofitable Power Purchase Arrangements (PPAs) to the Balancing Pool, effectively passing their financial losses and risks on to consumers. It is estimated that the clause will cost up to $2 billion between now and 2020, when PPAs are set to expire.

- TD Bank says that AB is in the midst of its longest, deepest, recession ever, since the price of oil began to plunge two years ago. The energy sector directly accounts for about a quarter of the AB economy on a GDP; it has had a 6.5 per cent drop in GDP since 2014. Oil prices have fallen more than 70 per cent since mid-2014. The energy downturn has seen more than 40,000 oil patch layoffs, and the unemployment rate is hovering around 8 per cent. The government is also expecting its projected $6.1-billion deficit to balloon further because of declining oil prices.
Saskatchewan’s Priorities / Issues:

- On November 18, 2015, Premier Wall said that the province will generate half of its power from renewable energy in 15 years. SaskPower will expand its wind generation, augmented by other renewables, such as solar, biomass, geothermal and hydro. Currently, about 25% of SK's generation capacity comes from renewable sources – 20% from hydro and 5% or 220 MW from wind. Three new wind power projects already approved or in development will add another 207 MW of renewable generation by 2020.

- On October 22, 2015, SaskPower announced that the $525 million retrofit of three gas turbines at its Queen Elizabeth Power Station was complete, making them more efficient, and adding enough generation to power more than 200,000 homes. SaskPower says demand for electricity will grow by 13 per cent over the next five years. With this retrofit, natural gas is now the number one source for electricity in SK, surpassing conventional coal. Two thirds of the power generated by SaskPower goes to supply industrial customers.

- On February 8, 2016, SK asked the federal government to support an Accelerated Well Cleanup Program (AWCP). The proposal calls for $156 million in federal funding to help stimulate employment in the oil and gas service support sector by accelerating the clean-up of oil wells no longer capable of production. The resource sector has lost 1,900 jobs during the past year.

- On March 1, 2016, Husky Energy celebrated the opening of its Edam East heavy oil thermal project. The new plant has the capacity to produce 10,000 barrels of oil per day, and is the first of three heavy oil thermal projects Husky will bring online this year. Each plant will create up to 30 permanent jobs and up to 250 jobs in the construction phase.

- The April 2016 sale of SK’s petroleum and natural gas rights raised $3.1 million for the province, bringing the calendar year’s total so far to $8.1 million.

- Quebec (QC) and SK announced on June 16, 2016 an agreement to further develop the potential of carbon capture and storage (CCS) —a technology aimed at enabling major emitters to reduce their greenhouse gas (GHG) emissions. The collaboration will contribute to the development of knowledge and best practices to reduce GHG emissions through carbon capture and storage while improving the economic return on projects by reusing the captured carbon for other purposes.

- SK promoted Energy East in Ontario (ON) in July 2016. Energy East will give SK oil producers access to new markets, and help reduce the need for Canada to import foreign oil.

- Pipeline safety and spill response are high on SK’s priority list after after one of Husky Energy’s pipelines dumped almost 1,300 barrels of heavy crude into the North Saskatchewan River on July 20, 2016. The possibility of charges under the Environmental Management and Protection Act, 2010 (EMPA 2010) is being “discussed.”

- SK has experienced a sharp decline in government revenues as a result of declining oil prices. Premier Wall has indicated that budgetary restraint may be possible and suggested that government may include private-sector partners to maintain spending programs.

- SK is Canada’s second-largest oil producer. Oil and gas accounts for more than 15 per cent of SK’s $61 billion real GDP, and supports approximately 38,000 jobs in the province. Oil production in 2014 reached an all-time high of more than 515,000 barrels a day on average, pushing SK past Alaska to become the fifth highest producing jurisdiction in North America.
Manitoba’s Priorities/Issues:

- MB has two megaprojects on the list of Canada’s top 10 largest projects. At No. 4 is the $6.5B 695MW Keeyask dam and the $4.6B Bipole III transmission line ranks at No. 8. Construction on the Keeyask dam began in July 2014, and first power is expected in 2019. Construction of the Bipole III line began in 2014, and is expected to be completed in 2018.

- On July 21, 2015, MB announced that that it was partnering with Quebec, Newfoundland and Labrador, the Northwest Territories, Yukon, and Ontario to establish a Pan-Canadian Task Force to reduce the use of diesel fuel to generate electricity in remote communities. Reducing or eliminating diesel use in these communities would reduce harmful emissions, strengthen local economies, and create well-paying jobs. The creation of the task force supports requests from communities for cleaner and more economical energy solutions. In Canada, there are nearly 300 off-grid communities with a total population of approximately 200,000 people.

- A new, 20-year agreement signed between Manitoba Hydro and SaskPower on September 14, 2105, will see a minimum of 100 megawatts of renewable hydroelectricity, the equivalent to the electricity required to power 40,000 homes, flow from Manitoba to Saskatchewan beginning in 2020.

- On November 13, 2015, MB announced $150,000 in support for Aki Energy to help expand its geothermal energy program to a total of six First Nations in the province and create green jobs and lower utility bills for on reserve housing.

- On January 8, 2016, AB and MB signed a MOU on shared energy and climate change priorities. The aim is to further co-operation on their shared goals of greenhouse-gas emission reductions, innovation, energy efficiency and renewable energy development including hydroelectricity.

- On January 15, 2016, the Clean Environment Commission announced that it will hold public hearings on Manitoba Hydro’s proposed Manitoba/Minnesota Transmission Project. The project will include the construction and operation of a high-voltage transmission line from the Dorsey Converter Station northwest of Winnipeg to the American border south of Piney.

- On January 18, 2016, the MB and federal governments announced that they will jointly provide support for projects and research using biomass energy. The two governments will provide up to $500,000 for 12 projects that will increase the use and development of biomass fuels.

- Also on January 18, 2016 MB announced it has entered into multiple partnerships across a number of major sectors with the goal of further reducing GHG emissions. Projects that can access the $5-million Climate Change Action Fund are aimed at: creating climate change action plans and GHG inventories for municipal decision-making; increasing knowledge sharing for best practices in agriculture; helping the freight transportation sector apply new technologies; developing recommendations on policy and regulatory framework changes; increasing the use of mapping and accurate forecasting of climate changes; and helping industry understand and adapt to the risks posed by climate change.

- In February 2016, the Minnesota Public Utilities Commission (MPUC) gave final approval to a 500-kilovolt transmission line that will carry electricity from hydro dams in Manitoba to a Minnesota Power substation near Grand Rapids, Minn., on the edge of the Chippewa National Forest. The Great Northern Transmission Line (GNTL) is owned by the Duluth-based electric utility, a subsidiary of ALLETE Inc., and Manitoba Hydro. Pending final approval from the Department of Energy, GNTL would become the second 500 kV transmission link between Manitoba and Minnesota, increasing by roughly 40 percent the amount of power that can flow between the North Star State and Canada’s easternmost prairie province. With a projected cost
of $560 million to $710 million, GNTL is among a handful of major new grid interconnections planned along the U.S.-Canada border, including two major transmission links under development between New England and Quebec, Canada's largest hydropower producer.

- On July 28, 2016, the Canadian and Manitoba governments announced that they are supporting a greener, more sustainable economy through the $1-million Biomass Energy Support Program. It gives $500,000 in grants to help coal users transition to renewable biomass fuel. Another $500,000 is available for applied research projects that support the growth of the biomass industry in Manitoba.

Ontario's Priorities/Issues:

- On October 5, 2015, ON and QC signed a Memorandum of Understanding regarding continued energy collaboration and potential opportunities for Ontario-Quebec electricity trade.

- October 5, 2015The first phase of Hydro One's initial public offering was completed by November 12, 2015, generating $1.83 billion in gross proceeds that will be dedicated to critical investments in transit and infrastructure throughout ON and to pay down debt.

- On December 1, 2015, ON passed legislation to protect consumers by strengthening the Ontario Energy Board (OEB). New rules included a ban of door-to-door sales for energy contracts and significantly increased fines for violations of OEB rules.

- On December 3, 2015, ON stated it had updated its contract with Bruce Power and will proceed with the $13 billion refurbishment of six nuclear units at the Tiverton-based nuclear generation station.

- Nuclear energy provides over half of ON's annual generation, meeting most of ON's baseload requirements. On January 11, 2016, ON announced that Ontario Power Generation (OPG) will refurbish the 3,500 MW Darlington Nuclear Generating Station. The project will contribute $15 billion to ON's GDP and create up to 11,800 jobs annually, making it the largest investment in public infrastructure in ON's history. The budget for the project is $12.8 billion, and will be completed by 2026.

- On February 17, 2016, ON said that government will invest $74 million in a cleantech innovation initiative, which will help reduce greenhouse gas pollution by encouraging large industrial plants to adopt leading-edge technologies, while supporting entrepreneurs in developing creative solutions.

- On July 12, 2016, ON said that it had reached an agreement in principle with the province's First Nations to loan them up to $268-million to buy up to 15 million shares at $18 per share - above the province's book value, but below the $24-to-$26 range the stock has been trading in recent months. For the deal to go through, at least 80 per cent of the band councils will have to approve the agreement by the end of next year. If ratified, Ontario would sell the shares to a new investment vehicle owned collectively by First Nations and provide seed capital of up to $45-million over three years. Thirty per cent of the utility's shares have already been sold, and if 15 million shares are sold to the First Nations, it would represent another 2.5 per cent.

- Right now, electricity is now cheaper to generate in Ontario than it has been for decades. The wholesale price, called the Hourly Ontario Electricity Price (HOEP) used to move between five and eight cents per kilowatt hour (kWh), but over the last decade, thanks in large part to the shale gas revolution, it has trended down to below three cents, and on a typical day is now as low as two cents per kWh. However, the actual purchase price is the highest it's ever been because of a tax called the Global Adjustment (GA). It is levied on electricity purchases to cover a massive provincial slush fund for green energy, conservation programs, nuclear plant repairs and other central planning problems. As these spending commitments soar, so does
the GA. In 2009, when the Green Energy Act gave massive revenue guarantees to wind and solar generators, the GA jumped to about 3.5 cents per kWh, and has been trending up since. Now it is regularly above 9.5 cents. In April 2016, it topped 11 cents, triple the average HOEP.

- Lower oil prices and a weakened dollar are expected to translate into higher exports for ON’s manufacturing sector. ON is forecasted to experience the highest economic growth of approximately 2% in 2016, along with BC.

Quebec’s Priorities/Issues:

- On April 11, 2016, Québec (QC) unveiled its energy policy for 2016-2030, entitled "Politique énergétique 2030, L’énergie des Québécois – Source de croissance" (Energy Policy 2030, The Energy of Quebecers – a Source of Growth). The policy is the result of two major public consultations that took place in 2013 and 2015. It aims to set a clear vision of energy development in Québec as well as addressing the concerns of certain stakeholders. Its objectives are: promote a low carbon economy; optimally enhance energy resources; encourage responsible consumption; exploit the full potential of energy efficiency; and stimulate the chain of technological and social innovation. The policy identifies five major targets to be met by 2030: increase energy efficiency by 15%; reduce amount of petroleum products consumption by 40%; eliminate use of thermal coal-based energy; increase total renewable energy production by 25%; and increase bioenergy production by 50%.

- Public hearings are underway in the US for approval of the construction of the Northern Pass transmission line that would bring electricity to southern New Hampshire (NH) from QC. The project is a 400 km line from QC through the White Mountains of NH; 96 kms of the lines will be buried. It will cost $2.8 billion dollars, but HQ would assume only $607 million of the total and generate $200 million dollars a year in profits. On July 21, 2016, ISO New England officially determined that the Northern Pass project can reliably interconnect with the regional electric grid, and will not have an adverse effect on the reliability or operating characteristics of the regional grid and its participants. It is scheduled to be online by 2019. NH has some of the highest electricity costs in the US.

- QC publicly released the Strategic Environmental Assessment (SEA) report on May 30, 2016 of its entire hydrocarbons sector (overall SEA), including the Anticosti Island. The two SEAs helped to formulate recommendations for social, environmental, economic, security, transportation and emissions of greenhouse gases. Among the key findings, the modernization of the legislative and regulatory framework governing hydrocarbons in Quebec is required. The legislative and regulatory framework should enable better planning of development activities, maximizing profits from exploration and exploitation of hydrocarbons as well as greater involvement of local and regional authorities in decision making.

- In early August 2016, the Energy East Pipeline project has a new problem since Quebec officials are refusing to issue permits for geological testing of the riverbed to the owner, TransCanada Corp, that would allow it to determine how to cross the Ottawa River, near the junction with the St. Lawrence River. In January 2016, the mayors of the greater Montreal area came out in opposition to the Energy East Pipeline project based on public concerns regarding possible environmental impacts. QC City mayor Régis Labeaume, while generally supporting the project, has expressed similar concerns directed at TransCanada’s failure to answer questions adequately. The Régie de l’Énergie (Régie) delivered its report supporting the Energy East Pipeline project to the QC Minister on December 18, 2014.

- QC is looking to increase electricity exports to Massachusetts (MA) since MA passed a new energy procurement bill into law on August 8, 2016. The bill will allow the state to solicit contracts for up to 1,200 megawatts of new hydro power capacity, as well as 1,600 MW of
offshore wind power to address the state’s increasing energy costs, and create new jobs in the growing clean power industry.

- On August 9, 2106, the Quebec Superior Court supported Hydro-Québec in the long-running battle with Newfoundland and Labrador (NL) regarding a 1969 power contract with Hydro-Quebec (HQ) that allows HQ to buy “virtually all of the power” from the 5,428-megawatt generating station owned and operated by the Churchill Falls (Labrador) Corp.(CF(L)Co.). The ruling supported HQ who said that, despite new language in the 2016 renewal contract, CF (L) Co still can’t capture more than two fixed blocks of power – worth 300 megawatts and 225 megawatts – for sale to third parties. Earlier in August, NL also lost a separate ruling to HQ over the 1969 Churchill Falls power deal. The Quebec Court of Appeal upheld a 2014 lower court ruling, agreeing that HQ has no obligation to reopen the agreement. It has steadfastly refused to renegotiate original terms, which did not reflect rising energy values and do not expire until 2041.

**New Brunswick’s Priorities/Issues:**

- NB Power issued an invitation to First Nations communities to participate in a new program to integrate small-scale renewable energy projects onto the provincial power grid on January 29, 2016. First Nations communities are asked to submit plans to NB Power under the Community Renewable Energy – First Nations Opportunity, which is the first phase of the government’s Locally-Owned Renewable Energy Small Scale (LORESS) Program. Another Request for Expressions of Interest will be announced during the second phase for local entities, such as municipalities, co-operatives and not-for-profits, in January 2017.

- On May 27, 2016, as a result of the findings from the Commission on Hydraulic Fracturing, NB said that the provincial government will continue its moratorium on hydraulic fracturing indefinitely. The moratorium has been in effect since December 18, 2014.

- The National Energy Board (NEB) started public hearings on August 8, 2016 into the Energy East Pipeline in New Brunswick, a province where the prospect of oil and gas development has led to fierce and sometimes violent, protest in the past. The three-member panel tasked with deciding the fate of the controversial $15.7 billion development will start the hearings in Saint John, where the oil that would be shipped through the proposed 4,500-kilometre project would be refined. In total, 337 intervenors are scheduled to give their take on a pipeline that has already widened a chasm between some who believe the project is vital for the country’s economic growth and others who oppose it on environmental grounds.

**Nova Scotia’s Priorities / Issues:**

- On December 1, 2015, NS implemented legislation to support its new electricity plan “Our Electricity Future: Nova Scotia’s Electricity Plan” which was released in November 9, 2016. The Electricity Plan Implementation (2015) Act gives authority to the NS Utility and Review Board to set performance and reliability standards for Nova Scotia Power, to create more predictable and stable rates for three years, and aligns efficiency programming with the rate stability period, so they both end in 2019. The plan reflects findings from the year-long Electricity System Review, which heard from more than 1,300 Nova Scotians and technical experts. The plan also commits $1.5 million over next three years to research technologies related to energy storage, tidal and solar power.

- NS brought forward two other pieces of energy legislation in 2015, in addition to the Electricity Plan Implementation (2015) Act. The Marine Renewable Energy Act provides a clear and responsible path forward for developing Nova Scotia’s marine renewable energy resources,
including the incredible tidal energy opportunity for the province in the Bay of Fundy. Amendments to the Accord Act continue to support the moratorium on oil and gas activity on Georges Bank. The Georges Bank fishery supports an important part of our rural and provincial economy, and this legislation ensures the area remains protected.

- On January 21, 2016, NS granted regulatory approvals for the $100 million Alton Natural Gas Storage facility project in Colchester County to store natural gas in three underground salt caverns near Stewiacke, NS. Environmental concerns focus on the release of salty water from drilling the underground caverns into the Shubenacadie River system. The approval comes after 18 months of consultations with the First Nations and to allow for modifications to the project.

- On January 27, 2016, Nova Scotia Power (NSP) said that it has exceeded its 25% renewable energy target in 2015. NS now generates 26.6% of its electricity from sources such as wind, hydro, tidal and biomass. The most rapid growth has come from wind farms, which jumped from supplying 1% to 10% of the province's electricity. Hydro accounts for 9.8% of the province's electricity supply today, but is forecast to hit 22% in 2020. Ten years ago, more than 80% of NS's electricity was generated by burning coal. This has dropped to 56% and is forecast to decline to 45% by 2020.

- Amendments to the Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation (Nova Scotia) Act (Accord Act) came into effect on February 26, 2016. These changes, developed jointly with the federal government, represent a significant update to the Act and strengthen environmental protection in the NS offshore. The changes focus on four key areas: prevention, response, accountability and transparency. New regulations have been developed to implement these changes and include: Cost Recovery Regulations; Administrative Monetary Penalties Regulations; and Financial Requirement Regulations.

- NS amended the Renewable Electricity Regulations on April 8, 2016 to allow for more flexibility in managing the electricity system and to reduce the use of primary forest biomass for generating electricity. During the province's electricity review, Nova Scotians expressed concerns about the use of primary forest biomass for electricity. The amended ended a legal requirement to operate the Nova Scotia Power biomass plant in Port Hawkesbury as a must-run facility.

- On August 3, 2016, the Nova Scotia Utility and Review Board approved a pipeline that will connect with a recently approved liquefied natural gas facility in Cape Breton. The 62.5-kilometre pipeline will run between Goldboro, N.S., to the Bear Head LNG Corporation's export facility which is still to be constructed in Point Tupper, Richmond County.

**Prince Edward Island’s Priorities / Issues:**

- On October 29, 2015, the government of Prince Edward Island (PEI) announced that it was developing a new energy strategy with a greater focus on renewable power such as tidal energy. PEI says the strategy will be comprehensive, with a focus on sustainability, including approaches to energy efficiency and conservation, renewable energy alternatives, transportation and economic benefits. It will be integrated with the provincial climate change strategy. The second draft of the PEI Energy Strategy is now available. The final Strategy was scheduled for the end of July 2016, but has not materialized.

- A $54M underwater power cable contract was awarded to a Korean company on January 21, 2016 for a portion of a project that will install two electricity cables with a total capacity of 360 MW, replacing the two 100 MW lines that currently run from PEI to the mainland under the Northumberland Strait. The federal government and the province pledged $50 million each to support the project could cost up to $140M.
The PEI Government and Maritime Electric issued a joint application on January 29, 2016 to the Island Regulatory and Appeals Commission for a new General Rate Agreement that proposes to increase electricity rates incrementally over the next three years. The increase would amount to 2.3 per cent for a typical residential customer in each of the next three years for a total 6.9 per cent increase by year three.

On February 16, 2106, PEI said that it is not committing to establishing a carbon tax for the Island as part of a cross-Canada emission-reduction plan.

PEI has been converting the heat systems for a number of facilities from oil to biomass since 2012. In that time, they have cumulatively displaced approximately 2.4 million litres of fuel oil. When all the biomass heating plants currently covered by contracts are operational in 2016, they will displace approximately 3.3 million litres of fuel oil per year and reduce greenhouse gas emissions by approximately 9,000 tonnes per year.

Maritime Electric has applied to the National Energy Board (NEB) on August 4, 2106 to renew its permit to export electricity to the United States. The NEB made that application public through a recent newspaper ad, asking for the views of Islanders when it comes to selling power to the U.S. The utility has held a permit to do so for the past decade, but never used it.

Northwest Territories Priorities/Issues:

On July 8, 2015 NWT became a signatory to the Climate Summit of the Americas Common Statement. The Common Statement commits to participating governments to take actions supporting international efforts to limit the increase in global temperature to below 2 degrees.

February 22, 2016, Colville Lake announced that it has successfully tested a system of batteries and solar panels that should allow the community to run entirely on the sun’s energy in the summer. Colville Lake replaces its aging diesel generator with a new one, and supplemented it with batteries and an array of solar panels capable of generating 136 kilowatts.

On March 16, 2016, the Government of the Northwest Territories (GNWT), National Energy Board (NEB), Government of Yukon, and Government of British Columbia confirmed world-class unconventional natural gas estimates in the Liard Basin. NWT’s portion of the Liard Basin find in the Upper Besa River/Exshaw shale is estimated to contain 44 trillion cubic feet (Tcf) of marketable, unconventional natural gas. Additionally, the Lower Besa River/Horn River shale located in the NWT is estimated to contain 187 Tcf of gas-in-place, which could yield an estimated 33 Tcf of marketable unconventional natural gas. The Liard Basin is expected to contain 219 Tcf of marketable, unconventional natural gas in total. At this estimate, it would be Canada’s second largest gas resource behind the Montney Formation (449 Tcf) to the southeast in British Columbia and Alberta.

Yukon Priorities/Issues:

The Yukon government (YK) announced the adoption of the Independent Power Production policy on October 27, 2015. The policy allows private producers to generate electricity, connect to the grid and sell power to local utilities.

On February 18, 2016, the Government of Yukon (YK) announced the adoption of the Yukon Biomass Energy Strategy which will guide the development of a biomass energy sector in the territory. The strategy provides opportunities for generating new energy for heating from local renewable energy sources. Biomass energy is energy derived from organic matter. In Yukon the most commonly available biomass resource is wood, which is the main focus of the strategy. There are six key action areas found within the strategy: using biomass energy for
government infrastructure; developing regulations, policies and programs for a biomass energy industry; managing air quality to protect public and environmental health and safety; facilitating the development of a biomass energy industry in Yukon; ensuring a sustainable timber supply; and ensuring biomass fuel quality and security.

- On March 16, 2016, the Yukon Geological Survey participated in the announcement of the assessment of the world-class shale gas resources located in the Liard Basin, along with the National Energy Board (NEB), the British Columbia Oil and Gas Commission, the Northwest Territories Geological Survey and the British Columbia Ministry of Natural Gas Development. The Liard Basin is expected to contain 219 trillion cubic feet (Tcf) of marketable, unconventional natural gas, making it Canada’s second largest gas resource behind the Montney Formation (449 Tcf) to the southeast in B.C. and Alberta. This resource assessment is an important step in fulfilling the Government of Yukon’s commitment to increase its knowledge and understanding of Yukon’s shale gas potential. It demonstrates the enormous energy potential in southeast Yukon.

- On May 4, 2016, the government of Yukon and the Canadian Geothermal Energy Association (CanGEA) released a report on the potential for geothermal energy in Yukon. Geothermal energy is a clean and sustainable resource that has the potential to generate heat and power while reducing energy costs. According to CanGEA’s report, Yukon’s geothermal potential could be more than 1,700 MW of energy. This is equivalent to 18 times the current energy supplied by Yukon’s renewable electrical system (90 MW).

- Yukon assessors recommended on June 2, 2016 that Yukon Energy be allowed to start work on a new, $80 million dollar project to replace the transmission line to its 20 customers in Keno City. The aim is to provide reliable power, but also to prepare for any future mining development in the region — such as Victoria Gold’s proposed Eagle mine, or the re-opening of Alexco’s Keno Hill silver mine.

- In July 2016, the government of Yukon expanded the mandate of Yukon Development Corporation’s next-generation hydro mandate to include the addition of smaller, clustered hydro projects as well as renewable energy resources. It will work more closely with Yukon Energy to ensure that the new generation projects that Yukon Energy will develop over the next 20 years will complement each other.

- On July 29, 2016, the Premier of the Yukon said that Yukon does not support implementing a carbon tax. Ninety-five per cent of Yukon’s electricity is generated by green sources.

**Nunavut’s Priorities / Issues:**

- On January 2016, the Qulliq Energy Corporation (QEC) said that Pangnirtung’s power plant that was destroyed by fire in 2015 is at the top of its replacement list along with the aging plants in Cape Dorset, Grise Fiord and Cambridge Bay. QEC says, in total, 17 communities are in desperate need of new energy infrastructure.

- According to a new report released by the World Wildlife Fund (WWF-Canada) on June 7, 2016, some Nunavut communities could cut their fossil-fuel use by as much as 50 percent by switching to a mix of renewables, without raising their costs. Currently all 25 Nunavut communities rely on diesel-powered generators. Many of these generators are old and are due for replacement. The report identified five Nunavut communities where diesel consumption could be cut by at least one-third by incorporating a mix of solar and wind energy for the same price as operating and maintaining the old generator.

- At the Council of the Federation, held July 20 to July 22, 2016, Nunavut said that it needs help innovating new technology and replacing its aging diesel generating units. Like NWT and YK,
NU says they it needs help adapting to climate change, but believes that raising the price of greenhouse gas emissions through a carbon tax will only hurt the northern economy.

- Kugluktuk, Nunavut said on August 9, 2016 that it has saved about $2,000 in diesel fuel for electricity generation after installing solar panels on its recreation complex. The solar panels have only been in place for one month but they've already produced 1,680 kWh of clean electricity. They are expected to save $9,000 in energy costs for the recreation complex per year. On average, the hamlet says it pays about $170,000 a year in energy costs for the complex. The 10 kW solar system was installed in June after the community received a $95,000 grant from the federal government. The recreation building houses an arena, youth centre, community kitchen and an area for toddlers.

Newfoundland and Labrador Priorities/Issues:

- On November 12, 2015, the C-NLOPB announced the results of the Call for Bids in the Eastern Newfoundland Region under the Scheduled Land Tenure System in the Canada-NL Offshore Area. The Call for Bids (NL15-01EN) offered 11 parcels totaling 2,581,655 hectares. The sole criterion for selecting a winning bid is the total amount of money the bidder commits to spend on exploration of the parcel during Period I (the first period of a nine-year licence). The minimum bid for each parcel offered is $10,000,000 in work commitments. The total value of the bids was $1,204,953,713 in work commitments.

- On July 28, 2015, NL released its new net metering policy framework. Net metering will allow utility customers with small-scale generating facilities to generate power from renewable sources for their own consumption. Once the framework is fully implemented by the utilities, customers will be able to feed power into the distribution system during periods when they generate excess power and draw power from the grid when their generation does not fully meet their needs.

- On October 1, 2015, NL announced increased reserve estimates for the offshore. The in-place oil and gas resource potential is 12 billion barrels of oil and 113 trillion cubic feet of gas for the area covering the 11 parcels on located in the Flemish Pass. These parcels were up for bid in the first ever scheduled license round that closed in November 2015.

- On November 2, 2015, NL announced the framework for the new enhanced generic offshore oil royalty regime. The generic regime and NL’s equity participation provides a progressive sharing of revenues from resource development between the province and the investor.

- On December 21, 2015, NL announced that it will undertake an independent review of the cost, schedule and associated risks for the Muskrat Falls Project. Ernest and Young will undertake a comprehensive, independent review of the project’s cost and schedule to determine if there are any critical risks moving forward. They will identify opportunities for corrective action, if necessary. The estimated cost of the Muskrat Falls has increased to $11.4 billion from $7.4 billion. On a per-capita basis, NL is spending more on a single electricity project than the U.S. government is projected to spend in its entire 2017 budget. The federal government is considering a request to guarantee new debt offerings to finish the 824 MW hydroelectric project.

- The proclamation of legislation was announced on February 26, 2016 to establish the “polluter-pays” principle and to strengthen liability provisions for the offshore. Three new regulations are necessary to fully implement the legislation: financial requirements, administrative monetary penalties and cost recovery. The legislation requires emergency planning, environmental plans and other documents to be made available to the public.
• The Provincial Government received the final report by the Newfoundland and Labrador Hydraulic Fracturing Review Panel and released it on May 31, 2016. The Provincial Government is beginning the process of reviewing the contents any future decisions regarding the hydraulic fracturing industry will be based on scientific evidence, and most importantly, on a social license from residents.

• Statoil provided results of its offshore exploration program on June 10, 2016. It confirmed the presence of hydrocarbons in the Baccalieu and Bay de Verde prospects in addition to the Bay du Nord, Harpoon and Mizzen discoveries. Statoil was issued an exploration licence in January 2016, began drilling a well in March, and has already announced the discovery of oil in the Baccalieu prospect.
Electricity

- Phase I of the Lower Churchill Project is the 824 megawatt (MW) Muskrat Falls hydro generating station and associated transmission links between Labrador, the Island, and Nova Scotia, which are all under construction. The facility is expected to average 4.8 terawatt hours (TWh) annually. The Maritime link is scheduled to enter service in late 2017, the Labrador Island Link will enter service in mid-2018 and the generating station will produce first power in late 2019.

- Phase II of the Lower Churchill Project at Gull Island has a planned capacity of 2,250 MW, with an average energy output of 11.9 TWh hours per year. As Muskrat Falls will meet domestic market requirements for the foreseeable future, a significant portion of Gull Island could be dedicated for export or to serve new large scale industrial load within NL, or some combination of these.

- Premier Ball’s December 2015 mandate letter to the Minister of Natural Resources stated, “You will act to maximize the net benefits from in-province use of energy and energy export by... seeking opportunities to develop the Gull Island Hydro Project, which will include identifying potential markets and access routes...”

- Consistent with this mandate, NR and Nalcor Energy have both worked to identify and advance opportunities to develop Gull Island. NR, in coordination with Nalcor, has been engaged in a Task Force with the Government of Ontario to determine if and how NL electricity exports, especially Gull Island can help meet Ontario’s long term needs. The likely transmission paths from Gull Island to Ontario would likely be through Quebec, or possibly through the northeastern US.

- With the change in NL’s Government in late 2015 and subsequent change in Nalcor leadership, new Nalcor CEO Stan Marshall has stated publicly that he is interested in talking with Hydro Quebec to determine if there is potential to work together on new NL electricity export opportunities. Mr. Marshall has stated publicly that attempting to renew and normalize relations with Hydro-Quebec (HQ) will be an objective of his as CEO of Nalcor Energy.

- Mr. Marshall has met with HQ CEO Eric Martel, and hosted HQ executive on a recent visit to the Muskrat Falls construction site. Media reported in July 2016 that Hydro Quebec officials recently visited the Muskrat Falls site.

- In response to questions about relations with HQ and the recent Quebec court case decisions (i.e. Good Faith and Declaratory Judgment cases) during Nalcor’s Q2 2016 public webcast, Mr. Marshall reiterated his wish to attempt to establish good business relations with HQ. He also noted as positive that Nalcor and HQ recently successfully negotiated a resolution to a complaint that Nalcor initially lodged with the Quebec regulator over use of HQ transmission for export.

- On May 16, 2016, QC Minister of Economy, Science and Innovation Dominique Anglade and Minister of Energy and Natural Resources Pierre Arcand wrote to Minister Coady and the Minister Mitchelmore indicating interest in discussing energy development partnership between the provinces.
• The QC ministers’ letter stated that the yet-to-be-finalized FPT Agreement on Internal Trade (AIT)

Potential Speaking Point:  

• I understand that officials from our respective crown electric utilities have initiated contact to establish working relationships between the two companies.

• I look forward to hearing how our utilities’ discussions are progressing and whether there is potential for meaningful progress.
NEG/ECP – Background Note – New England Market Opportunities
Nalcor Energy

Issue: Overview of New England Market Opportunities and Nalcor’s Activity in the Region.

Background:

- NL has excess electricity resources in both the short and long term that can potentially be exported to New England. A number of generation and transmission development scenarios are under consideration by Nalcor Energy.

- Presently, excess generation exists in Labrador that is being exported via the Hydro Quebec transmission system to external markets. Over the medium term, the Muskrat Falls project and associated transmission links will enable additional exports via the Maritimes. Over the longer term, additional exports could be realized with new transmission links from NL to Quebec or the Maritimes to enable Gull Island’s 2250 MW capacity to be developed along with new wind generation.

New England Market

- The New England wholesale energy market serves a population of more than 14 million that was valued at $ 6.0 billion in 2015. The market is currently facing supply challenges including: (1) excessive reliance on natural gas generation, (2) upcoming retirements of non-gas-fired generation (up to 10,200 MW by 2020), (3) and aggressive greenhouse gas (GHG) emission reduction targets and state renewable portfolio standards (RPS), which require electricity suppliers to purchase a portion of their power from renewable sources.

- Accessing additional generation resources in higher load areas, such as Massachusetts (MA) and Connecticut (CT), has also presented transmission challenges for New England. Since 2002, $7.8 billion has been invested in transmission in the region, with further $4.2 billion planned by 2020.

- Maine (ME), New Hampshire (NH), and RI (Rhode Island) presently exclude large-scale hydro power from their RPS. Vermont (VT) recognizes large-scale hydropower as renewable and so does CT in limited circumstances. Massachusetts (MA) recently diversified its RPS with the passage of its Clean Energy Bill, which is discussed in more detail below.

Nalcor’s Recent Activity in New England

Tri-State RFP

- In recent years, the New England states have worked towards large long-term procurement of clean energy resources, including large hydro imports, and associated new transmission infrastructure.

- On November 12, 2015, the MA and CT state governments along with electric utilities from those states and RI, issued the Clean Energy joint procurement RFP.

- The RFP sought bids on new Class 1 renewable energy projects of at least 20 MW and large-scale hydro power projects constructed after January 1, 2003. Class 1 renewables include wind, solar, small hydro, biomass and fuel cells. Hydroelectric power can also be used to balance or support wind generation. The overall solicitation was for approximately 5
TWh annually. The RFP also invited bids for transmission projects in recognition that some generation projects submitted may require new transmission.

Massachusetts Hydro Bill

- In July 2015, MA Governor Baker introduced proposed legislation entitled An Act Relative to Energy Sector Compliance with the Global Warming Solutions Act (the “hydro bill”). The legislation was seeking a requirement that MA utilities work with the MA Department of Energy Resources to jointly and competitively solicit long-term contracts (15-25 years) for clean energy generation up to 18.9 TWh per year and associated transmission.

- In fall 2015, Nalcor delivered a presentation to the MA House Joint Committee on Telecommunications, Utilities and Energy in support of the proposed legislation. The bill is important to NL as it would allow import of Canadian hydropower and support long-term contracts for new supply, which is critical for Gull Island development.

- On July 31, 2016, the MA House of Representatives and the Senate passed the Clean Energy Bill, which represents a compromise between the earlier versions of the bill passed separately by the House and Senate.

- The Clean Energy Bill provides for the procurement of 1.6 GW of offshore wind power and 9.45 TWh of clean energy annually, which could include hydroelectric, land-based wind or a combination of both. In addition, contracts may have terms up to 20 years and may include purchases of power, renewable energy credits and required transmission. The bill states that proposals including hydropower must guarantee energy delivery in the winter months.

- The bill further states that solicitations must begin prior to April 2017 with contracts executed by December 2022.

MA Clean Electricity Partnership (MCEP)

- In fall 2015, Nalcor co-founded the MCEP alliance of hydro, onshore wind and transmission companies including HQ, Emera Inc, Brookfield Renewable Energy Partners, Transmission Developers Inc. New England, Sun Edison and NB Power. The MCEP’s key objectives were to support Governor Baker’s bill and educate MA stakeholders on the advantages of clean, reliable and renewable energy, specifically hydro and onshore wind. While members of the MCEP generally compete with one another, all members have a common goal of selling clean energy into/within MA.

- As the Clean Energy Bill has been announced, Nalcor indicates that the work of the MCEP will wind down.
Near and Long-Term Opportunities

- Following the completion of the Muskrat Falls Project, including the associated transmission assets, the island of Newfoundland will be connected for the first time with the North American grid. This will allow Nalcor to maximize the value from provincial electricity resources by exporting excess electricity to other regions of Canada and the US.

- In the longer term, there are opportunities for Nalcor to lay the foundation for development of Gull Island.

- Nalcor is continuing to explore and investigate all options for transmission access into the New England market.

- In addition to the New England Market, Nalcor is currently examining multiple market options and market access options for Gull Island Project including: access to Ontario (ON) via the Hydro Quebec TransEnergie system; and to the Maritimes and New England via subsea.

- To explore the opportunities for importing clean and reliable electricity from NL to ON, in July 2015, the ON-NL Interprovincial Electricity Trade Working Group was formed. This group includes representatives from the provincial governments, ON’s Independent Electricity System Operator, and Nalcor Energy.

Prepared by/Reviewed by: L. Combden, C. Snook/ T. English
Ministerial Approval:

August 19, 2016
Title: Gull Island and NL Export (Supply) Opportunities

Issue: To provide an overview of the Gull Island Project and recent update on market opportunities.

Background and Current Status:

**Gull Island Project**

- The Gull Island project is Phase 2 of the Lower Churchill Project with a planned capacity of 2,250 MW and an average energy output of 11.9 TWh per year. As the Muskrat Falls Project will meet domestic market requirements for the foreseeable future, output from Gull Island will be dedicated to export or to serve new large scale industrial load within NL.

- Significant technical work has been completed on the Gull Island project, including: technical studies and an environmental assessment for generation; assessment of potential transmission routes; aboriginal agreement with Innu Nation; a water management agreement with Churchill Falls (Labrador) Corporation Limited; and of extensive hydrological data and analysis.

- The Gull Island project is of interest to policy makers in the northeast region as it is the main alternative large hydro supplier to Hydro Quebec.

- Multiple market options and market access options for Gull Island are being assessed for potential feasibility. One of the primary considerations will be availability of a long-term contract to enable financing. Market options include: access to Ontario (ON) via the Hydro Quebec TransEnergie system; to the Maritimes and New England via subsea route; and to New England via the Hydro Quebec TransEnergie system.

**Market Opportunities with Ontario**

- ON’s electricity generation is provided by nuclear (61%), hydroelectric (25%), wind (7%), natural gas (7%), and non-hydro renewables (<1%) as of the first quarter of 2016.

- In 2015, ON imported 5,764 GWh of electricity and exported 22,618 GWh. The majority of this power was imported from Quebec (QC) (4,767 GWh) and exported to Michigan (10,248 GWh).

- Due mainly by retirement of baseload capacity, ON’s Long-Term Energy Plan (LTEP) 2013 projected an electricity capacity gap to emerge as early as 2019. As such, ON committed to exploring the potential for clean, firm electricity imports as a source of electricity supply.

- In November 2014, ON and Quebec (QC) signed an MOU aimed at greater energy cooperation, including Seasonal Capacity Exchange, which will see ON making 500 MW of electricity capacity available to QC in the winter, and QC making 500 MW available to ON in the summer. The provinces also agreed to discuss greater energy trade between the provinces.

- At the July 2014 EMMC, ON and NL committed to establishing a working group to explore opportunities for importing clean electricity from NL to ON.

- On August 29, 2014, in Charlottetown, PEI, then Premier of ON indicated ON’s interest in discussing access to Gull Island power.

- During the July 2015 Council of the Federation meeting in NL, then Premier of ON toured the Muskrat Falls site and expressed interest in the potential of hydroelectric energy in Labrador.

- In July 2015, ON and NL Energy Ministers announced the creation of the interprovincial, Ontario – Newfoundland and Labrador Interprovincial Electricity Trade (ONLIET) Working Group to study
the potential for firm clean electricity trade opportunities between both provinces. The working group includes provincial government officials from ON and NL, and representatives from Ontario’s Independent Electricity System Operator (IESO) and Nalcor.

Analysis:

- Since the 2013 LTEP, changes have occurred in ON, including the 500 MW seasonal capacity exchange agreement with Quebec and the plan to extend operation of the nuclear Pickering Generation Station until 2024. ON expects this will likely push ON’s potential capacity gap to beyond 2024, when its estimated requirements will start at approximately 500 MW and range between 1,000 – 2,000 MW towards the end of 2032.
- Nalcor can deliver varying amounts of supply from now to post-2041. Until mid-2020’s, NL can provide 100-250 MW (1.2-4 TWh/year), weighted more heavily to the summer season.
- In the long-term beyond the mid-2020’s, new generation at Gull Island and/or smaller hydro and wind generation could provide more than 2,000 MW (11.9 TWh/year). With the Churchill Falls Renewal Contract expiring in 2041, additional supply ranging from 4,000 MW (25 TWH/year) could be available for export.

Action to be taken:
- NR will continue to monitor any future progress.

Prepared/ Approved by: R. Chowdhury, C. Boland / Ministerial Approval:

August 18, 2016
NEG/ECP – Background Note – Current Energy Issues in the Eastern Canadian Provinces
Department of Natural Resources

Issue: To provide background information on Eastern Canadian provinces’ current energy issues which may be raised during the NEG/ECP meeting.

Background and Current Status:

New Brunswick:

- On May 26, 2015, NB introduced legislation to create a program to allow local entities to work with NB Power to install renewable energy sources in their communities. The locally-owned Renewable Energy Projects will encourage the creation of new renewable generation to serve in-province demand and provide economic benefits to local entities such as universities, non-profit organizations, associations, co-operatives, First Nations and municipalities. In addition, the program will help fulfill the province’s commitment to pursue renewable energy as outlined in the Renewable Portfolio Standard. NB has substantially reduced emissions from electricity generation and reduced its overall emissions by 32 per cent since 2001, and achieved its initial target of reaching 1990 levels by 2012.

- During the last election campaign, Premier Gallant committed to work to improve regional energy cooperation through the examination of a single system operator for the regional energy grid.

- An electricity sharing pilot project between Nova Scotia Power (NSP) and NB Power failed to generate expected savings last year, but it did cut costs by nearly $7 million and the arrangement has been extended for another six months. When the joint dispatch agreement was announced in March 2015, the utilities predicted $20 million in annual savings between them. The actual savings were $6.7 million, NSP said in a report recently filed with the Nova Scotia Utility and Review Board. The utility said the project “significantly” reduced fuel prices. In its report to regulators, it declared the project a success.

- NB Power issued an invitation to First Nations communities to participate in a new program to integrate small-scale renewable energy projects onto the provincial power grid on January 29, 2016. First Nations communities are asked to submit plans to NB Power under the Community Renewable Energy – First Nations Opportunity, which is the first phase of the government’s Locally-Owned Renewable Energy Small Scale (LORESS) Program. Another Request for Expressions of Interest will be announced during the second phase for local entities, such as municipalities, co-operatives and not-for-profits, in January 2017.

- On May 27, 2016, as a result of the findings from the Commission on Hydraulic Fracturing, NB said that the provincial government will continue its moratorium on hydraulic fracturing indefinitely. The moratorium has been in effect since December 18, 2014.

- NB continues to be a strong advocate of the Energy East Pipeline project, which is an estimated $12B project that will carry 1.1M barrels of crude oil along a 4,600 kilometre pipeline from AB and SK to refineries in Easter Canada including the Irving refinery in St. John, NB.

- The National Energy Board (NEB) started public hearings on August 8, 2016 into the Energy East Pipeline in New Brunswick, a province where the prospect of oil and gas development has led to fierce and sometimes violent, protest in the past. The three-member panel tasked with deciding the fate of the controversial $15.7 billion development will start the hearings in Saint John, where the oil that would be shipped through the proposed 4,500-kilometre
project would be refined. In total, 337 intervenors are scheduled to give their take on a pipeline that has already widened a chasm between some who believe the project is vital for the country’s economic growth and others who oppose it on environmental grounds.

**Nova Scotia:**

- Effective January 1, 2015, amendments to the *Public Utilities Act* include a new energy efficiency and conservation section that removed the efficiency tax from utility bills, and required NS Power to purchase cost-effective clean energy. It also gave the NS Utility and Review Board regulatory oversight of efficiency programs to determine affordability for ratepayers. Efficiency NS was restructured and granted a 10-year franchise to deliver efficiency programs.

- On April 29, 2015, a legislative framework for marine renewable energy was tabled in the NS Legislature. The legislation will implement the Province’s *Marine Renewable Energy Strategy*, released in May 2012, which maps out a high-level plan to continue researching, developing, and regulating how NS will harness this resource, which they believe will result in a new dependable source of power; expertise that will be in demand worldwide, and new economic opportunities in NS.

- On December 1, 2015, NS implemented legislation to support its new electricity plan “Our Electricity Future: Nova Scotia’s Electricity Plan” which was released in November 9, 2016. The Electricity Plan Implementation (2015) Act gives authority to the NS Utility and Review Board to set performance and reliability standards for Nova Scotia Power, to create more predictable and stable rates for three years, and aligns efficiency programming with the rate stability period, so they both end in 2019. The plan reflects findings from the year-long Electricity System Review, which heard from more than 1,300 Nova Scotians and technical experts. The plan also commits $1.5 million over next three years to research technologies related to energy storage, tidal and solar power.

- NS brought forward two other pieces of energy legislation in 2015, in addition to the *Electricity Plan Implementation (2015) Act*. The *Marine Renewable Energy Act* provides a clear and responsible path forward for developing Nova Scotia’s marine renewable energy resources, including the incredible tidal energy opportunity for the province in the Bay of Fundy. Amendments to the Accord Act continue to support the moratorium on oil and gas activity on Georges Bank. The Georges Bank fishery supports an important part of our rural and provincial economy, and this legislation ensures the area remains protected.

- On January 21, 2016, NS granted regulatory approvals for the $100 million Alton Natural Gas Storage facility project in Colchester County to store natural gas in three underground salt caverns near Stewiacke, NS. Environmental concerns focus on the release of salty water from drilling the underground caverns into the Shubenacadie River system. The approval comes after 18 months of consultations with the First Nations and to allow for modifications to the project.

- On January 27, 2016, Nova Scotia Power (NSP) said that it has exceeded its 25% renewable energy target in 2015. NS now generates 26.6% of its electricity from sources such as wind, hydro, tidal and biomass. The most rapid growth has come from wind farms, which jumped from supplying 1% to 10% of the province’s electricity. Hydro accounts for 9.8% of the province’s electricity supply today, but is forecast to hit 22% in 2020. Ten years ago, more than 80% of NSP’s electricity was generated by burning coal. This has dropped to 56% and is forecast to decline to 45% by 2020.

These changes, developed jointly with the federal government, represent a significant update to the Act and strengthen environmental protection in the NS offshore. The changes focus on four key areas: prevention, response, accountability and transparency. New regulations have been developed to implement these changes and include: Cost Recovery Regulations; Administrative Monetary Penalties Regulations; and Financial Requirement Regulations.

- NS amended the Renewable Electricity Regulations on April 8, 2016 to allow for more flexibility in managing the electricity system and to reduce the use of primary forest biomass for generating electricity. During the province’s electricity review, Nova Scotians expressed concerns about the use of primary forest biomass for electricity. The amended ended a legal requirement to operate the Nova Scotia Power biomass plant in Port Hawkesbury as a must-run facility.

- On August 3, 2016, the Nova Scotia Utility and Review Board approved a pipeline that will connect with a recently approved liquefied natural gas facility in Cape Breton. The 62.5-kilometre pipeline will run between Goldboro, N.S., to the Bear Head LNG Corporation’s export facility which is still to be constructed in Point Tupper, Richmond County.

Prince Edward Island:

- In December 2014, PEI began preliminary negotiations to purchase 100 megawatts of electricity from QC. The talks are preliminary since PEI is still under a power purchase agreement that expires in 2016 with NB as part of the five-year, $60M PEI Energy Accord.

- On October 29, 2015, the government of PEI announced that it was developing a new energy strategy with a greater focus on renewable power such as tidal energy. PEI says the strategy will be comprehensive, with a focus on sustainability, including approaches to energy efficiency and conservation, renewable energy alternatives, transportation and economic benefits. It will be integrated with the provincial climate change strategy. The second draft of the PEI Energy Strategy is now available. The final Strategy was scheduled for the end of July 2016, but has not materialized.

- The PEI Government and Maritime Electric issued a joint application on January 29, 2016 to the Island Regulatory and Appeals Commission for a new General Rate Agreement that proposes to increase electricity rates incrementally over the next three years. The increase would amount to 2.3 per cent for a typical residential customer in each of the next three years for a total 6.9 per cent increase by year three.

- On February 16, 2106, PEI said that it is not committing to establishing a carbon tax for the Island as part of a cross-Canada emission-reduction plan.

- On April 29, 2016, PEI’s Energy Minister announced that Maritime Electric's plan to add two new underwater electric cables between PE and NB has received provincial and federal environmental approval and that work would begin immediately. The cables will allow Maritime Electric to import up to 360 MW of electricity, bolstering the 200 MW cables installed four decades ago that are currently serving PE by shipping power over from NB. The cost of the project is estimated to be upwards of $140 million. The federal government has provided $50 million, with the rest coming from PE. The cables will be owned by the province and leased to Maritime Electric. According to Maritime Electric, the cables could be transmitting energy as early as mid-November 2016.

- Maritime Electric has applied to the National Energy Board (NEB) on August 4, 2016 to renew its permit to export electricity to the United States. The NEB made that application
public through a recent newspaper ad, asking for the views of Islanders when it comes to selling power to the U.S. The utility has held a permit to do so for the past decade, but never used it.

Quebec:

- On March 24, 2011, the Governments of Canada and QC announced the Canada-Quebec Accord, an agreement on the joint management of offshore resources in the Gulf of St. Lawrence. The Accord is generally consistent with the existing Canada-Newfoundland Atlantic Accord Implementation Act and the Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act. On June 11, 2015, An Act to implement the accord between the Government of Canada and the Government of Quebec for the joint management of petroleum resources in the Gulf of St. Lawrence was tabled in the National Assembly. On June 18, 2015, An Act to implement the accord between the Government of Canada and the Government of Quebec for the joint management of petroleum resources in the Gulf of St. Lawrence and to make consequential amendments to other Acts was tabled in the Canadian House of Commons.

- On April 11, 2016, Québec (QC) unveiled its energy policy for 2016-2030, entitled "Politique énergétique 2030, L’énergie des Québécois – Source de croissance" (Energy Policy 2030, The Energy of Quebecers – a Source of Growth). The policy is the result of two major public consultations that took place in 2013 and 2015. It aims to set a clear vision of energy development in Québec as well as addressing the concerns of certain stakeholders. Its objectives are: promote a low carbon economy; optimally enhance energy resources; encourage responsible consumption; exploit the full potential of energy efficiency; and stimulate the chain of technological and social innovation. The policy identifies five major targets to be met by 2030: increase energy efficiency by 15%; reduce amount of petroleum products consumption by 40%; eliminate use of thermal coal-based energy; increase total renewable energy production by 25%; and increase bioenergy production by 50%.

- QC publicly released the Strategic Environmental Assessment (SEA) report on May 30, 2016 of its entire hydrocarbons sector (overall SEA), including the Anticosti Island. The two SEAs helped to formulate recommendations for social, environmental, economic, security, transportation and emissions of greenhouse gases. Among the key findings, the modernization of the legislative and regulatory framework governing hydrocarbons in Quebec is required. The legislative and regulatory framework should enable better planning of development activities, maximizing profits from exploration and exploitation of hydrocarbons as well as greater involvement of local and regional authorities in decision making.

- In January 2016, the mayors of the greater Montreal area came out in opposition to the Energy East Pipeline project based on public concerns regarding possible environmental impacts. QC City mayor Régis Labeaume, while generally supporting the project, has expressed similar concerns directed at TransCanada’s failure to answer questions adequately.

- Public hearings are underway in the US for approval of the construction of the Northern Pass transmission line that would bring electricity to southern New Hampshire (NH) from QC. The project is a 400 km line from QC through the White Mountains of NH; 96 kms of the lines will be buried. It will cost $2.8 billion dollars, but HQ would assume only $607 million of the total and generate $200 million dollars a year in profits. On July 21, 2016, ISO New England officially determined that the Northern Pass project can reliably interconnect
with the regional electric grid, and will not have an adverse effect on the reliability or operating characteristics of the regional grid and its participants. It is scheduled to be online by 2019. NH has some of the highest electricity costs in the US.

- QC is looking to increase electricity exports to Massachusetts (MA) since MA passed a new energy procurement bill into law on August 8, 2016. The bill will allow the state to solicit contracts for up to 1,200 megawatts of new hydro power capacity, as well as 1,600 MW of offshore wind power to address the state’s increasing energy costs, and create new jobs in the growing clean power industry.

- On August 9, 2016, the Quebec Superior Court supported Hydro-Québec in the long-running battle with Newfoundland and Labrador (NL) regarding a 1969 power contract with Hydro-Quebec (HQ) that allows HQ to buy “virtually all of the power” from the 5,428-megawatt generating station owned and operated by the Churchill Falls (Labrador) Corp.(CF(L)Co.). The ruling supported HQ who said that, despite new language in the 2016 renewal contract, CF (L) Co still can’t capture more than two fixed blocks of power – worth 300 megawatts and 225 megawatts – for sale to third parties. Earlier in August, NL also lost a separate ruling to HQ over the 1969 Churchill Falls power deal. The Quebec Court of Appeal upheld a 2014 lower court ruling, agreeing that HQ has no obligation to reopen the agreement. It has steadfastly refused to renegotiate original terms, which did not reflect rising energy values and do not expire until 2041.

**Prepared by / Approved by:** A. Philpott / T. English

**August 18, 2016**
Overview: Background information on energy issues in the New England states to inform discussions at the 2016 NEG/ECP Conference.

Background and Current Position:
- At the 2016 NEG/ECP Conference, Premiers and Governors will have an opportunity to discuss prominent energy issues for each of their jurisdictions. This note provides an overview of some of the current energy issues for the New England States.

Maine:
- In 2015, about two-thirds of Maine's (ME) electricity generation came from renewable energy resources, with about 30 per cent from hydroelectricity, 26 per cent from biomass (mainly wood products), and 10 per cent from wind.
- ME has stated that that it has the 12th highest electricity retail prices in the United States with natural gas and oil being the primary fuels for more than 70% of the electricity capacity in the state. At the same time, however, Maine has one of the highest renewable standards in the United States, requiring that 40% of total retail electricity sales must come from renewable resources by 2017.
- ME has identified five key energy issues it will need to address in the short to long term: (i) decreasing electricity prices and overall energy costs; (ii) extending natural gas services and transmission infrastructure to residential, commercial and industrial customers; (iii) strengthening energy efficiency, conservation and weather-proofing of the building envelope, and fostering renewable energy use; (iv) reducing oil use by 50 per cent by 2050; and, (v) preparing an energy assurance and emergency preparedness and response plan.
- Governor LePage has advocated removing the cap of 100 MW on hydropower in ME, which was initially established to encourage renewable energy generation development. Governor LePage has argued that the cap prevents ME from accessing cheaper power from Canada. ME has also advocated for additional natural gas infrastructure projects to facilitate a stable supply and end bottlenecks.

New Hampshire:
- In 2015, 17 per cent of New Hampshire’s (NH) net electricity generation came from renewable energy. Natural gas accounted for 30 per cent. Nuclear power provided 47 per cent of NH’s 2015 net electricity generation.
- By 2025, NH electric utilities must obtain at least 25 per cent of their electricity supplies from renewable sources.

Massachusetts:
- In 2015, about 9 per cent of net electricity generation in Massachusetts (MA) came from renewable energy resources, approximately two-thirds from biomass and hydroelectricity, and one-third from solar and wind. MA generated 64 per cent of its electricity from natural gas and 7 per cent of its electricity from coal in 2015.
- In July 2015, Governor Baker moved forward with a legislative proposal to competitively procure large scale clean energy resources to meet MA’s energy needs and greenhouse gas reduction goals. The bill was signed into law in August 2016 and requires MA to solicit long-term contracts of
15-20 years to procure 1,600 MW of offshore wind power and another 1,200 MW of hydropower or other renewable resources.

- In the Fall of 2015, Nalcor co-founded the Massachusetts Clean Electricity Partnership (MCEP) – an alliance of hydro, onshore wind and transmission companies including, Hydro-Quebec, Emera Inc, Brookfield Renewable Energy Partners, Transmission Developers Inc. New England, Sun Edison and NB Power.

- In addition to supporting the passage of the procurement legislation, the MCEP’s key objective is to educate MA stakeholders on the advantages of clean, reliable and renewable energy, specifically hydro and onshore wind. While members of the MCEP generally compete with one another, all members have a common goal of selling clean energy into/within MA.

**Connecticut:**

- Connecticut's (CT) renewable portfolio standard sets a goal of obtaining 23% of the state’s electricity from renewable energy resources by 2020, plus another 4% from conservation and energy from industrial heat. In 2015, 46 per cent of CT’s net electricity generation came from the Millstone nuclear station.

- In July 2013, CT Governor Malloy, signed two new pieces of energy legislation. The first expanded the state’s natural gas distribution system. In response, regulated natural gas companies filed proposals to connect thousands of households. The second bill changed CT’s renewable energy policy to boost Canadian hydropower imports.

- By increasing the availability of natural gas as an alternative to costlier oil energy and relying more on hydropower from Canada, Governor Malloy noted that CT is putting downward pressure on energy prices. The cost of electricity in CT has been among the highest in the US.

**Vermont:**

- Vermont has issued an updated Vermont Comprehensive Energy Plan (CEP) and an Electric Plan. These plans are required by law to be adopted as of January 1, 2016 and updated every 6 years thereafter.

- The update CEP reaffirms Vermont’s goal of achieving 90 per cent of its total energy needs from renewable sources by 2050 and includes a statutory target of 25 per cent by 2025. Other detailed goals include reducing total energy consumption per capita by 15 per cent by 2025, end-use goals for 2025 of 10 per cent renewable transportation and 67 per cent, GHG reduction goals of 40 per cent below 1990 levels by 2035 and 90 per cent below 1990 levels by 2050.

- On June 23, 2014, Governor Shumlin released the Vermont Clean Energy Industry Report which noted the state’s clean energy industry employs over 15,000 workers at over 2,600 locations and has seen a 3.4 per cent growth in the last year. Gov. Schumlin wants to reduce VT’s dependence on traditional fossil fuels and encourage entrepreneurs to create jobs.

- In December 2014, the 604 megawatt VT Yankee nuclear plant was retired. Because this plant supplied more than 70% of VT’s electricity generation in 2014, its retirement significantly changes the generation profile of the state.

**Rhode Island:**

- In 2015, Natural gas fueled 95 per cent of Rhode Island’s (RI) net electricity generation. RI is the second-lowest emitter of carbon dioxide among all states. RI does not have any coal-fired electricity generation.

- The first U.S. offshore wind facility is under construction three miles off RI’s Block Island. The five 6-megawatt turbines are expected to begin operation in 2016.
• RI law requires energy suppliers to include 16 per cent renewable energy in the electricity generation mix by the end of 2019. The American Council for an Energy Efficient Economy rated RI in 6th place in overall scoring in 2013 and 2nd in energy efficiency programs and policies in the US.

• RI updated its 2002 Energy Plan, which was released in April 2014. The Energy Plan coordinates energy policy at all levels and pursues the development of a clean energy economy for the purposes of creating jobs and industry growth, mitigating against price volatility and increasing reliability through a diversification of the current energy portfolio, and improving environmental quality by reducing reliance on carbon emitting sources of energy.

Prepared / Approved by: R. Bates / T. English
8/19/2016
Decision/Direction Note
Department of Natural Resources

Title: Decision to CFLCo Appeal to Supreme Court of Canada

Issue: Whether to authorize CFLCo to proceed to seek leave to appeal to the Supreme Court of Canada the recent good faith ruling on the 1969 Power Contract with Hydro-Quebec.

Background and Current Status:

- In September 2010, CFLCo began legal action in the QC Superior Court against Hydro-Quebec (HQ) in respect of the terms of the 1969 Power Contract. This legal action is based on the position that HQ has a good faith obligation under Quebec law to renegotiate the price paid for power under the Power Contract. The CFLCo board of directors’ decision to launch the action was conditional on Government funding the external costs and expenses incurred by CFLCo in relation the action.

- Government has established a trust, with CFLCo as beneficiary, to fund the required legal fees and court costs. Government advances funds to the trust at the request of the trustee, which uses the trust funds to enable CFLCo to pursue the litigation and deal with any court-ordered cost awards against CFLCo as a result of losing or discontinuing the litigation, including any potential order to post security for costs in the QC Court.

- The QC Superior Court heard the case from September 9, 2013 to December 16, 2013. The Court’s decision, which dismissed CFLCo’s arguments, was rendered on July 24, 2014. CFLCo filed an appeal on August 26, 2014 in the Quebec Court of Appeal. In April 2016, the appeal hearing was heard at the Quebec Court of Appeal, which rendered a unanimous decision on August 1st, 2016 that accepted some of CFLCo’s arguments, but ultimately dismissed the appeal, with costs (to be determined).

Approximately [redacted] has been spent on the case since 2009.
NR’s 2016/17 budget included funding of $300,000 for the ongoing legal action. NR has advanced the $300,000 to FIN, which administers the trust account and disburses funds to pay legal invoices as required. FIN advises that the balance in the trust account is presently

Alternatives:

Option 1: Authorize CFLCo to seek leave to appeal to the Supreme Court of Canada (RECOMMENDED)

- Advantages:
  - Allows Supreme Court of Canada challenge to proceed.
- Disadvantages:

Option 2 - Abandon legal case (NOT RECOMMENDED)

- Advantages
- Disadvantages:
  - Would halt proceedings on the Good Faith Case and eliminate the potential that NL might begin to obtain fair value for the inequitable Power Contract.
  - Would not produce a return on the approximately [redacted] spent to date.

Prepared/Approved by: C. Snook/W. Parsons  
Ministerial approval:  

September 13, 2016

Note: pages 51-52 have been redacted in full under sections 27(1)(h) and 27(2)(a).
Information Note
Department of Natural Resources

Title: Nalcor Energy’s Third Quarter 2016 Financial Results

Issue: To provide an overview of Nalcor Energy’s Third Quarter (Q3) 2016 Financial Statements and Management’s Discussion and Analysis (MD&A) which will be released on November 14, 2016.

Background and Current Status:
- The Q3 2016 report includes results for Nalcor, its subsidiaries and its share of investments in joint arrangements. The following table provides key financial highlights.

<table>
<thead>
<tr>
<th>Q3 2016 Nalcor Consolidated Highlights</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the period from July 1 - September 30, 2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue (million$)</td>
<td>154.1</td>
<td>129.7</td>
</tr>
<tr>
<td>(Loss) Profit (million$)</td>
<td>37.5</td>
<td>(1.2)</td>
</tr>
<tr>
<td>Capital Expenditures (million$)</td>
<td>1,032.5*</td>
<td>801.1</td>
</tr>
<tr>
<td>Electricity Sales (GWh)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NLH Regulated</td>
<td>1,298</td>
<td>1,300</td>
</tr>
<tr>
<td>Nalcor Energy Marketing</td>
<td>500</td>
<td>495</td>
</tr>
<tr>
<td>Churchill Falls</td>
<td>5,857</td>
<td>4,586</td>
</tr>
<tr>
<td>Oil production (bbls)</td>
<td>659,992</td>
<td>104,153</td>
</tr>
<tr>
<td>As at (year-to-date)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>September 30, 2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Assets (million $)</td>
<td>13,695.9</td>
<td>12,321.7</td>
</tr>
<tr>
<td>Total Liabilities (million $)</td>
<td>9,321.7</td>
<td>8,536.1</td>
</tr>
<tr>
<td>Total Equity (million $)</td>
<td>4,025.9</td>
<td>3,455.6</td>
</tr>
<tr>
<td>Debt to capital</td>
<td>61.5%</td>
<td>64.6%</td>
</tr>
</tbody>
</table>

*This number represents capital expenditures; including non-cash additions for the Maritime Link (see pg. 22 of the Q3 Report).

- Nalcor’s Q3 profit of $37.5 million is an increase of $38.7 million over the same period in 2015. This is due primarily to higher oil production and reduced operating costs. Profits for the first nine months of 2016 increased by $53.6 million from the same period in 2015 for the above reasons and also due to the approval of interim rates for Hydro and favourable settlement of forward exchange contracts.

- Capital expenditures, excluding the Maritime Link, increased by $118.1 million for Q3 compared to the same period in 2015. Year-to-date capital expenditures totaled $2.0 billion, an increase of $251.5 million from 2015. The increases are primarily due to Muskrat Falls.

- Nalcor’s total assets have grown from $12,321.7 million as of December 31, 2015 to $13,695.9 million as of September 30, 2016, primarily due to capital expenditures related to Muskrat Falls.
- Nalcor’s debt to capital ratio was 61.5% as at September 30, 2016, an improvement from December 31, 2015 when it was 64.6%.

<table>
<thead>
<tr>
<th>Business Segment Profit – Q3 2016 and Q3 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(millions of dollars)</strong></td>
</tr>
<tr>
<td><strong>2016</strong></td>
</tr>
<tr>
<td>Hydro Regulated</td>
</tr>
<tr>
<td>Churchill Falls</td>
</tr>
<tr>
<td>Oil and Gas</td>
</tr>
<tr>
<td>Energy Marketing</td>
</tr>
<tr>
<td>Bull Arm Fabrication</td>
</tr>
<tr>
<td>Phase 1 Lower Churchill Project</td>
</tr>
<tr>
<td>Corporate and Other Activities</td>
</tr>
<tr>
<td>Inter-segment</td>
</tr>
<tr>
<td>Profit for the period</td>
</tr>
</tbody>
</table>

Hydro Regulated (Hydro)

- Hydro’s revenue decreased by $11.1 million for the quarter to $71.2 million, primarily due to customer rate reductions associated with the normal operation of Rate Stabilization Plan (RSP). The year-to-date decrease by $44.9 million to $384.3 million was for the above reasons and also due to lower utility sales, partially offset by increased revenue from interim rates plus higher demand revenue. Hydro is still waiting on PUB approval of its 2013 General Rate Application, which is expected in Q4 2016.

- Hydro’s profit for Q3 2016 was $3.1 million, representing an increase over the same period in 2015 by $13.2 million. This is primarily due reduced operating costs.

- For the year-to-date, Hydro’s loss was $2.7 million, which was affected by a prudence order adjustment to cover $7 million in costs not approved by the PUB (this includes additional fuel required for operation of the combustion turbine in Holyrood). However, the loss represented an increase over the same period in 2015 by $29.7 million.

- Hydro’s electricity sales for Q3 2016 were 1,298 GWh compared to 1,300 GWh in Q3 2015. Year-to-date sales decreased by 182 GWh from the same period in 2015. The decreases are due to lower purchases from Exploits, as a result of lower residential demand.

Churchill Falls

- Churchill Falls Q3 revenue increased by $1.2 million from Q3 2015 as a result of higher energy sales to Hydro-Quebec, partially offset by lower sales to Hydro in Labrador. However, year-to-date revenue decreased from $70.5 million in 2015 to $69.8 million in 2016 due to lower energy sales to Hydro-Quebec and reduced guaranteed winter availability contract revenue, partially offset by lower sales to Hydro in Labrador.

- Operating costs for Q3 2016 decreased by $0.8 million due to a decrease in professional fees and in system equipment costs. Year-to-date costs decreased by 0.2 million, also related to lower system equipment costs, partially offset by higher salary and benefit expenses.
• There was also a $0.6 million decrease in depreciation and amortization for Q3 and a $3 million decrease year-to-date due to increased levels of investment in property, plant and equipment.

Oil and Gas

• Oil and Gas’ revenue increased by $32.3 million for Q3 2016 over Q3 2015 and by $58.1 million year-to-date compared to 2015 due to an increase in HSE production volumes. Total oil production increased by 555,839 barrels compared to Q3 2015 and oil production year-to-date increased by 1,194,551 barrels compared to 2015. The increases in production were partially offset by a reduction in seismic sales and a lower average Dated Brent price per barrel ($61.51 CAD/bbl for Q3 2016 vs. 86.47 CAD/bbl for Q3 2015).

• The production costs for the quarter increased by $2.3 million and increased by $7.6 million year-to-date primarily due to an increase in production volumes and project operating costs compared to the same periods in 2015. The depreciation, depletion and amortization expense was up by $9.8 million to $13.8 million from Q3 2015 and up by $21.8 million to $33 million year-to-date primarily due to an increase in depletion associated with HSE higher production volumes compared to the same periods in 2015.

• Total profit for the period increased by $18.2 million from Q3 2015. The year to date profit increased by $27 million from 2015.

Energy Marketing

• Energy Marketing’s Q3 revenue increased by $1.9 million from Q3 2015 due to higher electricity prices on export market sales and favourable foreign exchange rates. However, year-to-date revenue is lower at $67.3 million versus $74.9 in 2015 due to electricity prices on export market sales, partially offset by increased volumes as mild weather in Labrador increased available export energy.

• Overall, the realized export electricity price Q3 2016 was $35.09 (CAD/MWh), up from $34.20 (CAD/MWh), for Q3 2015. The year-to-date price was lower at $29.07 (CAD/MWh) compared to $37.66 (CAD/MWh) for the same period in 2015.

Bull Arm

• Bull Arm revenue in Q3 2016 was $5.2 million. Year-to-date revenue was $16 million.

• Revenue is primarily generated through leasing arrangements associated with large construction projects. The site is currently under lease to ExxonMobil Canada Properties until completion of the Hebron Project which is planned for 2017. Site project work consists of construction of the GBS platform, fabrication of the Living Quarters module, as well as other construction and fabrication activities related to the Hebron project.

Lower Churchill Project (LCP)

• Total capital expenditures increased by $199.6 million for Q3 2016 and $375.1 million year to date compared to the same periods in 2015.

<table>
<thead>
<tr>
<th>For the period July 1 – September 30</th>
<th>2016</th>
<th>2015</th>
<th>2015 Total To Date 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Musk rat Falls</td>
<td>296.1</td>
<td>248.5</td>
<td>2,740.9</td>
</tr>
<tr>
<td>Labrador Transmission Assets</td>
<td>40.2</td>
<td>58.9</td>
<td>715.8</td>
</tr>
<tr>
<td>Labrador-Island Link</td>
<td>326.9</td>
<td>260.1</td>
<td>2,114.7</td>
</tr>
<tr>
<td>Nalcor facilities capital costs</td>
<td>663.2</td>
<td>587.5</td>
<td>5,571.4</td>
</tr>
</tbody>
</table>
Capitalized interest and financing costs\(^1\) & 43.6 & 39.4 & 462.0 \\
Class B Limited Partnership Unit Interest & 5.9 & 2.4 & 37.4 \\
Total capital costs for Nalcor project components & 600.1 & 216.3 & 5,358.1 \\
Transition to Operations & 2.9 & - & 2.9 \\
Maritime Link & 177.8 & 64.5 & 1055.4 \\
Total capital expenditures & 893.4 & 693.8 & 7,129.1 \\
\(^1\) Excludes $63.0 million of allowance for funds used during construction on Nalcor’s Class A limited partnership units in the LIL LP that are eliminated upon consolidation.

**Analysis:**

- The Phase II Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnected System began in 2016. The focus of this proceeding is on the implications of the interconnection with Muskrat Falls on the reliability and adequacy of the Island Interconnected system. The PUB has engaged Liberty to provide assistance related to this review. A schedule has been issued for the proceedings. Hearings were initially expected in September 2016, however, the new date is set for November 30, 2016. No date for the final report has been set.

- On September 1, 2016, the Hydro-Quebec Renewal Contract came into effect. Churchill Falls’ 2016 forecasted profit is lower than 2015 mainly due to decreased revenue resulting from a 20% decrease in the power rate per the Renewal Contract.

- Energy Marketing is forecasting a lower profit for 2016 due to a decrease in revenue associated with lower forecasted prices.\(^{S. 5.4}\) Energy Corporation Act

- Oil and Gas is forecasting higher annual 2016 operating profit over 2015, primarily due to an increase in revenue due to higher forecasted production in 2016.

- Nalcor forecasts 2016 total capital expenditures at $2.9 billion, with $2.4 billion for Muskrat Falls.

- The Q3 report notes that Hydro identified two additional unforeseen capital projects, one related to the Bay d’Espoir penstock in the amount to $12.9 million and a project related to damage sustained from Hurricane Matthew to the Bay d’Espoir Access Road in the amount of $4.6 million.

- The Q3 report also notes the decision from the Quebec Court of Appeal on August 1, 2016 which upheld the 2014 Quebec Superior Court decision on the pricing terms of the 1969 Churchill Falls Power Contract. Churchill Falls has filed an Application for Leave for Appeal with the Supreme Court of Canada.

**Action Being Taken:**

- The Q3 2016 Financial Statements and MD&A will be publicly released on November 14, 2016.
• Natural Resources officials will continue to monitor Nalcor’s financial results.

Prepared/Approved by: A. Philpott/R. Bates/W. Parsons
Ministerial Approval: November 10, 2016
Marshall, Andrea

From: Bown, Charles W.
Sent: Tuesday, July 26, 2016 7:07 PM
To: Hussey, Cindy
Subject: Fw: Hydro Quebec

Sent from my BlackBerry 10 smartphone on the Bell network.

From: JKeating@nalcenergy.com
Sent: Tuesday, July 26, 2016 7:06 PM
To: Bown, Charles W.
Subject: Fwd: Hydro Quebec

Sent from my iPhone

Begin forwarded message:

From: "Deanne Fisher" <DeanneFisher@nalcenergy.com>
Date: July 26, 2016 at 5:40:13 PM NDT
To: "Jim Keating" <JKeating@nalcenergy.com>, "Chris Kieley" <ChrisKieley@nalcenergy.com>, "Stan Marshall" <smarshall@nalcenergy.com>
Subject: Fwd: Hydro Quebec

FYI. I will draft a response and circulate for approval.

Deanne Fisher
Manager of Corporate Communications & Stakeholder Engagement
709.733.5299 (p)
709.697.3418 (c)

Begin forwarded message:

From: "Fred Hutton" <fhutton@newcap.ca>
Date: July 26, 2016 at 5:35:22 PM NDT
To: "DeanneFisher@nalcenergy.com" <DeanneFisher@nalcenergy.com>
Subject: Hydro Quebec

Hi Deanne, wondering if you can confirm or deny if officials with Hydro Quebec have been visiting the Muskrat Falls site? If the answer is yes, what have they been doing there?

Thanks,
Fred

Fred C. Hutton
Sent from my BlackBerry 10 smartphone on the Bell network.

Original Message
From: DeanneFisher@nalcenergy.com
Sent: Tuesday, July 26, 2016 11:07 PM
To: Quinton, Diana; O'Connor, Nancy; KONeill@nlh.nl.ca; Bown, Charles W.; JKeating@nalcenergy.com
Subject: Message to Fred Hutton re: HQ visit in Labrador

Folks

Fred Hutton is running a story in the morning regarding a visit by HQ leadership to Labrador, specially Muskrat Falls. Fred advised that ‘Danny Williams claims that Hydro Quebec officials have been on the site several times’ and therefore wanted confirmation of the visits and whether or not negotiations are underway with HQ on the Lower Churchill Project.

Last week, Executives from Nalcor, along with the CEO, met with some new leaders at HQ to provide a site visit to the Churchill Falls plant, I’m which HQ is 1/3 owner. While in Labrador, HQ was invited to visit the MF site as well.

Below are the KMs provided to Fred:

- Given recent leadership changes at both HQ and Nalcor and the fact that HQ are partners in the Churchill Falls plant, the new teams gathered for a visit to the CF plant. While in Labrador they took in a tour of the Muskrat Falls site.

This meeting was arranged simply as a tour of the CF plant by the two business partners and to provide an opportunity for the new teams to establish a working relationship.

Any questions, let me know.
Deanne

Deanne Fisher
Manager of Corporate Communications & Stakeholder Engagement
709.733.5299 (p)
709.697.3418 (c)
From: Quinton, Diana
Sent: Tuesday, July 26, 2016 11:31 PM
To: Bown, Charles W.; Coady, Siobhan; Sheppard, Megan; English, Tracy
Subject: DRAFT KMS for approval re: HQ visit in Labrador

Here is a draft message for review:

Mr. Marshall informed me (when) that representatives of Hydro Quebec recently visited the Churchill Falls plant, of which they are part owner. While in Labrador, HQ also visited the Muskrat Falls site. I understand that this was an opportunity for the partners to meet to establish a working relationship.

We will probably be asked how we feel about this and whether or not we have also met with HQ about MF.

Sent from my BlackBerry 10 smartphone on the Bell network.
Original Message
From: Bown, Charles W.
Sent: Tuesday, July 26, 2016 11:08 PM
To: Coady, Siobhan; Sheppard, Megan; Quinton, Diana; English, Tracy
Subject: Fw: Message to Fred Hutton re: HQ visit in Labrador

Sent from my BlackBerry 10 smartphone on the Bell network.
Original Message
From: DeanneFisher@nalcorenergy.com
Sent: Tuesday, July 26, 2016 11:07 PM
To: Quinton, Diana; O'Connor, Nancy; KONelli@nih.nl.ca; Bown, Charles W.; JKeating@nalcorenergy.com
Subject: Message to Fred Hutton re: HQ visit in Labrador

Folks

Fred Hutton is running a story in the morning regarding a visit by HQ leadership to Labrador, specially Muskrat Falls. Fred advised that 'Danny Williams claims that Hydro Quebec officials have been on the site several times' and therefore wanted confirmation of the visits and whether or not negotiations are underway with HQ on the Lower Churchill Project.

Last week, Executives from Nalcor, along with the CEO, met with some new leaders at HQ to provide a site visit to the Churchill Falls plant, I'm which HQ is 1/3 owner. While in Labrador, HQ was invited to visit the MF site as well.

Below are the KMs provided to Fred:

- Given recent leadership changes at both HQ and Nalcor and the fact that HQ are partners in the Churchill Falls plant, the new teams gathered for a visit to the CF plant. While in Labrador they took in a tour of the Muskrat Falls site.

This meeting was arranged simply as a tour of the CF plant by the two business partners and to provide an opportunity for the new teams to establish a working relationship.

Any questions, let me know.
Deanne Fisher
Manager of Corporate Communications & Stakeholder Engagement
709.733.5299 (p)
709.697.3418 (c)
Hi Minister:

Premier's Office now has two media requests for a response to Danny Williams' comments. They asked me to prepare KMs and QAs to address. Premier may speak to this in a scrum tomorrow after the retreat.

I have to provide this info to the PO by the EOD. Please review the attached. Charles has reviewed.

Thanks,

Diana

Diana Quinton
Director of Communications
Natural Resources
Government of Newfoundland and Labrador
709-729-5282
Natural Resources
Response to Labrador Visit by Hydro Quebec
July 27, 2016

Summary:

On Wednesday, July 27, Former Premier Danny Williams was on VOCM talking about the Muskrat Falls Project and a recent visit by Hydro Quebec. He commented that, “The reason now I am here to talk to you is recently I have had information from several sources that Hydro-Quebec, senior officials of Hydro-Quebec, have paid several visits, at least a couple of visits, to the Muskrat Falls site. Now that really concerns me because when I initially did the Request for Proposals back in I think 2004, 2005, on the Lower Churchill, the first bid in was between - from Ontario and Quebec to buy this project, own it, control it – which is, you know, the Upper Churchill situation all over again....We do not want to have this (the Muskrat Falls Project) sold off by anybody to the private sector and Hydro-Quebec can smell the blood...My concern is what in the heck is Hydro-Quebec doing sniffing around?”

Government is being asked to respond to Mr. Williams’ comments.

Key messages:

- Mr. Marshall informed government that representatives of Hydro Quebec recently visited the Churchill Falls plant, of which they are part owner. While in Labrador, HQ also visited the Muskrat Falls site once. The visit was an opportunity for the partners to meet to establish a working relationship.

- Our government hasn’t had any direct contact with Hydro Quebec regarding the Muskrat Falls Project.

Secondary messages:

- Our government inherited the Muskrat Falls Project which had significant challenges from the onset – namely it being too big and too costly for our province’s needs. I have always been very vocal about my concerns around those very issues.

- We are working hard so that the project is managed effectively within budget to completion.

- We must ensure reliability of power and we must keep rates as low as possible.

- As of June 24, 2016, the overall construction cost forecast for the project is estimated to be $9.1 billion.
• The transmission line from Churchill Falls to Muskrat Falls and the Labrador-Island Link will be complete and in-service mid-2018.

• First power from the Muskrat Falls generating facility is now scheduled for fall 2019 with full power expected by mid-2020.

Questions and Answers:

Mr. Williams said HQ visited the Muskrat Falls project several times. How many times did they visit the site?
Nalcor has confirmed to us that HQ visited the Muskrat Falls site once.

Were you aware that HQ was visiting the site?
Mr. Marshall informed Minister Coady the day of the visit. She subsequently told me.

Has government been speaking with HQ about the Muskrat Falls Project?
No, we haven’t.

Do you intend to speak to HQ about the Muskrat Falls Project?
No, not specifically.

Has HQ approached government or Nalcor about renegotiating the Upper Churchill Project?
I am not aware that HQ has approached government about renegotiating the Upper Churchill Project.

Has HQ approached government or Nalcor about developing Gull Island?
I am not aware that HQ has approached government about developing Gull Island.

Has Government of Newfoundland and Labrador had conversations with the Government of Quebec?
We are always open to conversations with the Government of Quebec which has signaled to us that they would like to have a better relationship. We are certainly open to that.

What are your impressions about Mr. Marshall engaging HQ at this time?
Mr. Marshall is the CEO of the Churchill Falls (Labrador) Corporation (CFLCo). We understand that the meeting with HQ was an opportunity for the partners to meet to establish a working relationship. Hydro Quebec is a part owner of the Churchill Falls plant and has been for many years. I am not aware of the details of the conversation. We weren’t involved.
What are the current standings on the court cases with HQ?
Claim by CFLCo against Hydro Quebec (Good Faith Action): The appeal was heard on April 25, 2016 and we are awaiting the decision.
Motion by Hydro Quebec for a宣判ory Judgment regarding the 1969 Power Contract between CFLCo and HQ: The trial was held in the fall of 2015. We are awaiting the decision of the court.

How will conversations with HQ affect the court cases?
We understand that Mr. Marshall’s meeting with HQ was an opportunity for the partners to meet to establish a working relationship. S. 29(1)(a)

Is Nalcor hoping to sell the Muskrat Falls Project to HQ?
No

So, why was Mr. Marshall talking with HQ?
We understand that the meeting with HQ was an opportunity for the partners to meet to establish a working relationship. Hydro Quebec is a part owner of the Churchill Falls plant and has been for many years. I am not aware of the details of the conversation. We weren’t involved.

Why wasn’t government involved?
Mr. Marshall is the CEO of the Churchill Falls (Labrador) Corporation (CFLCo). The meeting was an opportunity to meet to establish a working relationship.

How often does HQ visit the Churchill Falls plant?
This is the first time HQ’s new leadership team has visited the Churchill Falls plant. S. 29(1)(a)

Would you consider selling the project to the private sector or to another government?
Our focus is to get the Muskrat Project on track – an asset which belongs to the people of Newfoundland and Labrador. S. 29(1)(a)

Would you consider selling a share of the Muskrat Falls Project to the private sector or to another government?
Our focus is to get the Muskrat Project on track – an asset which belongs to the people of Newfoundland and Labrador.

What do you say about Danny Williams’ claims that the Muskrat Falls Project continues to be a good project for Newfoundland and Labrador?
Our government inherited the Muskrat Falls Project which had significant challenges from the onset – namely it being too big and too costly for our province’s needs. I have always been very vocal about my concerns around those very issues. We are working hard so that the project is managed effectively within budget to completion. Ultimately, we must ensure reliability of power and we must keep rates as low as possible.
Mr. Williams basically said that it not uncommon for big projects to overrun, such as Hebron...
We can't speak for Hebron; but the Muskrat Falls Project will be paid for by the people of Newfoundland and Labrador. Cost overruns will have an impact on all ratepayers.

As a new government we have worked diligently to open the books on the Muskrat Falls Project, to ensure transparency and to put the project on track. One of the first acts of this government was to engage EY to review the project and provide independent analysis of the numbers.

In its interim report, EY informed government about the material risks and issues that were not reflected in the September 2015 forecast, and provided recommendations to improve project governance. The overall conclusion of the EY review was that the September 2015 forecast was not reasonable. In short, the cost, schedule and associated risks for the project were underestimated.

We are working hard so that the project is managed effectively within budget to completion. Ultimately, we must ensure reliability of power and we must keep rates as low as possible.

What negotiations are you currently having regarding the federal loan guarantee? (Answer from Finance)

During the latest update on the Muskrat Falls Project (June 24), a CBC article quoted Mr. Marshall as saying, "We will focus on getting more value from the excess power and exploring new arrangements and longer term arrangements to secure as much additional revenue as we can." He said the key to this will be talks with Emera and Hydro Quebec. Is this what the discussions with HQ were about?
We understand that the meeting with HQ was an opportunity for the partners to meet to establish a working relationship. Hydro Quebec is a part owner of the Churchill Falls plant and has been for many years. I am not aware of the details of the conversation. We weren't involved.
Hi Minister:

The attached KMs and QAs have been sent to the Premier's Office.

Thanks,
Diana

From: Quinton, Diana
Sent: Wednesday, July 27, 2016 2:36 PM
To: Coady, Siobhan
Cc: Bown, Charles W.; Sheppard, Megan; Shea, Erin
Subject: FOR APPROVAL: KMs and QAs: Response to Labrador Visit by Hydro Quebec

Hi Minister:

Premier's Office now has two media requests for a response to Danny Williams' comments. They asked me to prepare KMs and QAs to address. Premier may speak to this in a scrum tomorrow after the retreat.

I have to provide this info to the PO by the EOD. Please review the attached. Charles has reviewed.

Thanks,
Diana

Diana Quinton
Director of Communications
Natural Resources
Government of Newfoundland and Labrador
709-729-5282
Natural Resources
Response to Labrador Visit by Hydro Quebec
July 27, 2016

Summary:

On Wednesday, July 27, Former Premier Danny Williams was on VOCM talking about the Muskrat Falls Project and a recent visit by Hydro Quebec. He commented that, “The reason now I am here to talk to you is recently I have had information from several sources that Hydro-Quebec, senior officials of Hydro-Quebec, have paid several visits, at least a couple of visits, to the Muskrat Falls site. Now that really concerns me because when I initially did the Request for Proposals back in I think 2004, 2005, on the Lower Churchill, the first bid in was between - from Ontario and Quebec to buy this project, own it, control it – which is, you know, the Upper Churchill situation all over again….We do not want to have this (the Muskrat Falls Project) sold off by anybody to the private sector and Hydro-Quebec can smell the blood…My concern is what in the heck is Hydro-Quebec doing sniffing around?”

Government is being asked to respond to Mr. Williams’ comments.

Key messages:

- Mr. Marshall informed government that representatives of Hydro Quebec recently visited the Churchill Falls plant, of which they are part owner. While in Labrador, HQ also visited the Muskrat Falls site once. The visit was an opportunity for the partners to meet to establish a working relationship.

- Our government hasn’t had any direct contact with Hydro Quebec regarding the Muskrat Falls Project.

Secondary messages:

- Our government inherited the Muskrat Falls Project which had significant challenges from the onset – namely it being too big and too costly for our province’s needs. I have always been very vocal about my concerns around those very issues.

- We are working hard so that the project is managed effectively within budget to completion.

- We must ensure reliability of power and we must keep rates as low as possible.

- Mr. Williams has spoken about a return on equity of 8.4 per cent but it is important to remember that the Muskrat Falls project will be paid for by the people of the province. Cost overruns will have an impact on all ratepayers.
• As of June 24, 2016, the overall construction cost forecast for the project is estimated to be $9.1 billion.

• The transmission line from Churchill Falls to Muskrat Falls and the Labrador-Island Link will be complete and in-service mid-2018.

• First power from the Muskrat Falls generating facility is now scheduled for fall 2019 with full power expected by mid-2020.

Questions and Answers:

Mr. Williams said HQ visited the Muskrat Falls project several times. How many times did they visit the site?
Nalcor has confirmed to us that HQ visited the Muskrat Falls site once.

Were you aware that HQ was visiting the site?
Mr. Marshall informed Minister Coady of the visit. She subsequently told me.

Has government been speaking with HQ about the Muskrat Falls Project?
No, we haven’t.

Do you intend to speak to HQ about the Muskrat Falls Project?
No, not specifically.

Has HQ approached government or Nalcor about renegotiating the Upper Churchill Project?
HQ has not approached government about renegotiating the Upper Churchill Project.

Has HQ approached government or Nalcor about developing Gull Island?
HQ has not approached government about developing Gull Island.

Has Government of Newfoundland and Labrador had conversations with the Government of Quebec?
We are always open to conversations with the Government of Quebec; they have signaled to us that they would like to have a better relationship. We are certainly open to that.

What are your impressions about Mr. Marshall engaging HQ at this time?
Mr. Marshall is the CEO of the Churchill Falls (Labrador) Corporation (CFLCo). We understand that the meeting with HQ was an opportunity for the partners to meet to establish a working relationship. Hydro Quebec is a part owner of the Churchill Falls plant and has been for many years.
What are the current standings on the court cases with HQ?
Claim by CFLCo against Hydro Quebec (Good Faith Action): The appeal was heard on April 25, 2016 and we are awaiting the decision.
Motion by Hydro Quebec for a Declaratory Judgment regarding the 1969 Power Contract between CFLCo and HQ: The trial was held in the fall of 2015. We are awaiting the decision of the court.

Why was Mr. Marshall talking with HQ?
We understand that the meeting with HQ was an opportunity for the partners to meet to establish a working relationship. Hydro Quebec is a part owner of the Churchill Falls plant and has been for many years.

Why wasn’t government involved?
Mr. Marshall is the CEO of the Churchill Falls (Labrador) Corporation (CFLCo). The meeting was an opportunity to meet to establish a working relationship.

How often does HQ visit the Churchill Falls plant?
This is the first time HQ’s new leadership team has visited the Churchill Falls plant.

Would you consider selling the project to the private sector or to another government?
We have no proposals from anyone for the sale of the project. It would depend on the circumstance and whatever is in the best interest of the province. Our focus is to get the Muskrat Project on track – an asset which belongs to the people of Newfoundland and Labrador.

Would you consider selling a share of the Muskrat Falls Project to the private sector or to another government?
We have no proposals from anyone. It would depend on the circumstance and whatever is in the best interest of the province. Our focus is to get the Muskrat Project on track – an asset which belongs to the people of Newfoundland and Labrador.

What do you say about Danny Williams’ claims that the Muskrat Falls Project continues to be a good project for Newfoundland and Labrador?
Our government inherited the Muskrat Falls Project which had significant challenges from the onset – namely it being too big and too costly for our province’s needs. I have always been very vocal about my concerns around those very issues. We are working hard so that the project is managed effectively within budget to completion. Ultimately, we must ensure reliability of power and we must keep rates as low as possible.

Mr. Williams has spoken about a return on equity of 8.4 per cent but it is important to remember that the Muskrat Falls project will be paid for by the people of the province. Cost overruns will have an impact on all ratepayers.
Mr. Williams basically said that it not uncommon for big projects to overrun, such as Hebron...
We can't speak for Hebron; but the Muskrat Falls Project will be paid for by the people of Newfoundland and Labrador. Cost overruns will have an impact on all ratepayers.

As a new government we have worked diligently to open the books on the Muskrat Falls Project, to ensure transparency and to put the project on track. One of the first acts of this government was to engage EY to review the project and provide independent analysis of the numbers.

In its interim report, EY informed government about the material risks and issues that were not reflected in the September 2015 forecast, and provided recommendations to improve project governance. The overall conclusion of the EY review was that the September 2015 forecast was not reasonable. In short, the cost, schedule and associated risks for the project were underestimated.

We are working hard so that the project is managed effectively within budget to completion. Ultimately, we must ensure reliability of power and we must keep rates as low as possible.

During the latest update on the Muskrat Falls Project (June 24), a CBC article quoted Mr. Marshall as saying, "We will focus on getting more value from the excess power and exploring new arrangements and longer term arrangements to secure as much additional revenue as we can." He said the key to this will be talks with Emera and Hydro Quebec. Is this what the discussions with HQ were about?
We understand that the meeting with HQ was an opportunity for the partners to meet to establish a working relationship. Hydro Quebec is a part owner of the Churchill Falls plant and has been for many years.
Natural Resources
CF(L)Co Appeal – Good Faith Case
August 1, 2016

Summary:
Hydro Quebec (HQ) and CFLCo have been engaged in a court proceeding before the Quebec courts since 2010 when CFLCo challenged the 1969 Power Contract, and in particular the Renewal Contract term, on the basis of a “good faith” argument. HQ filed a Defence to HQ’s Statement of Claim in May 2011. The decision, which dismissed CFLCo’s arguments, was rendered on July 24, 2014. CFLCo filed an appeal on August 26, 2014, in the Quebec Court of Appeal arguing that the 2014 decision, which dismissed a provincial argument for re-negotiation of the Upper Churchill power contract, was in error. Today, August 1, 2016, the decision was handed down in favour of HQ, unanimously.

What is government’s position on the decision in this court case?

Key messages:

- This court case in relation to the power contract for Churchill Falls has been ongoing since 2010 between Churchill Falls Labrador Corporation (CFLCo) and Hydro-Quebec. The court has issued its ruling today in favour of Hydro Quebec.

- We are deeply disappointed with the decision on the appeal of the case.

- The Government of Newfoundland and Labrador has supported CFLCo in its appeal throughout the process.

- The verdict was rendered in French, so the translation of the decision is now being undertaken.

- Legal counsel will review the verdict, and next steps will be determined after this review process has been completed.

Background:
• On September 28, 2010, Churchill Falls Labrador Corporation (CFLCo) commenced a legal action against Hydro-Quebec in the Supreme Court of Quebec in relation to the power contract for Churchill Falls.

• The litigation was based on the position that HQ has a good faith obligation under Quebec law to renegotiate the price paid for power under the power contract.

• The litigation was subject to government committing to pay all external costs and expenses incurred by CFLCo for any negotiations and legal proceedings.

• Government established a trust for legal fees and court costs to provide the funding commitment required. S. 29(1)(a), S. 30(1)(a)

• To date (which would include the development of the action since the late 1990's), the Province has about [redacted] has been allocated for this case. Government allocated $300,000 in the budget for legal requirements in 2016/17.

• The QC Superior Court handed down its judgment on July 24, 2014 and dismissed CFLCo's motion. An appeal was filed on August 26, 2014 in the Quebec Court of Appeal; arguments were heard on Monday, April 25, 2016, and this verdict was put forward
Good Morning,

I would like to express to you my concerns re: the MF project and the upcoming talks that "have been initiated" with Hydro Quebec (HQ). This no doubt was undertaken at the latest premier's gathering in the Yukon. (Probably at the prodding of Justin Trudeau, if NL is to see any further Loan Guarantees for the MF project.) It will be interesting to see the details of such a discussion. Already Emera has a 35% interest in the project...whatever details will emerge from HQ discussions will be crucial to NL maintain a controlling interest? But on the other hand, HQ are adversaries are interested in their personal gain only. (Fair partnerships isn't a part of their corporate goals.) The "Critical" point to keep in focus here is that, they can acquire Emera and other Maritime Utility interest on the open market and end up having a 'controlling' interest in most, if not all Maritime Energy electrical resources eventually. (They could have final input in your/everyone's future energy costs in the maritime's.)

Another concern I have is the separation of NL Hydro from Nalcor Energy's core business units, of which there are 5. What was the intent to dismantle this particular company from the parent group? Are we still facing the "old Liberal mantra" of exploiting 'Public entities' to pursue personal gain for Liberal associates, cronies and MHA self-interest, such as when Mr. Clyde Wells' pursuit to sell it off during his tenure as a Liberal Premier?? We still have today believe it or not, certain affiliated prominent public figures behind the "BALL" Liberal scene, who assisted Mr. Joey Smallwood with the Upper Churchill contract and were "as responsible" for that fiasco as was Mr. Smallwood and probably moreso, since they completed a "not so wise" review of the terms of the UC contract. (Behind the Liberal scene, are they now to be a part of a MF fiasco?)

Whatever the MF discussions review, the "complete details" of any proposal should be released to the House and to the Public for scrutiny and approval...nothing otherwise will be tolerated. If this doesn't occur, than a
"Referendum" needs to be held...we don't want 'Elected Individuals' coming off the street shredding this province's economy, as it has been done in the past.

In future, as an election platform proposal, we need to maintain/improve our Democracy system because it needs some major changes to control the problem of inexperienced and under-qualified 'elected officials' devastating this province's economy. A Provincial Budgetary Office needs to be implemented similar to what the Federal Government implemented in 2006 (Parliamentary Budgetary Office). This Provincial Budgetary Office would be independent of political influence and monitors provincial spending and flags any potential misspending risks.

This particular topic will require further assessment I'm sure, but the intent is have "better governance" to produce good and sound government policies and decisions. A much needed change is required in how we govern the province's affairs...."how to counteract any government policy introduction or reversals, that have noted negative effects and will drastically affect constituents, government departments, proposed legislation, etc., is to implement a system of governance that would require a majority vote of such proposed changes to be passed by: All of the ruling government MHA's, along with 55% of all Opposition Party MHA's." (All MHA's are elected to perform a duty to improving the economic status of this province....and, if proposed policies are of a 'positive' nature and are viewed to be a sound economic advancement for the province, then a majority vote should be attainable.)

Up front I must tell you that I value the "elected individual's" morale integrity and commitment to bettering this province's economic position than the "elected individual" towing party policies". Most constituents today are attuned to a MHA's commitment to doing their best to attain high performance standards. Today's constituents are much more aware and being proactive in ensuring politicians have our best interests in mind. (Accordingly, you may well witness future changes in the political scene in this province akin to what's happening with Brexit in England and the social unrest that's happening in France.)

Looking forward to hearing your responses on the listed issues, either personally, through the media or in the House of Assembly.

Thank You.
Sent from my BlackBerry 10 smartphone on the Bell network.
Original Message
From: Bown, Charles W.
Sent: Thursday, August 4, 2016 8:09 AM
To: Mullaley, Julia; Quinlan, Krista; Miles, Peter; Dutton, Sean
Subject: Fw: Churchill Falls incident

Sent from my BlackBerry 10 smartphone on the Bell network.
Original Message
From: DeanneFisher@nalcenergy.com
Sent: Thursday, August 4, 2016 5:46 AM
To: Bown, Charles W.; English, Tracy; Quinton, Diana; Shea, Erin; MarkKing@nalcenergy.com
Subject: Churchill Falls incident

Folks,

A fire occurred underground at the Churchill Falls plant overnight. There were two fires and both have been extinguished and there are no injuries.

No power loss to customers in Labrador.

As a result, there are two units unavailable and an estimated restoration is unknown but suspect it will take a while before both come back online.

Regular updates will come throughout the morning as details emerge.

Deanne

Deanne Fisher
Manager of Corporate Communications & Stakeholder Engagement
709.733.5299 (p)
709.697.3418 (c)
Will check to see what is accounted for under GWAC and advise.

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?

Folks,

A fire occurred underground at the Churchill Falls plant overnight. There were two fires and both have been extinguished and there are no injuries. No power loss to customers in Labrador.

As a result, there are two units unavailable and an estimated restoration is unknown but suspect it will take a while before both come back online.

Regular updates will come throughout the morning as details emerge.
Deanne

Deanne Fisher
Manager of Corporate Communications & Stakeholder Engagement
709.733.5299 (p)
709.697.3418 (c)

"This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender."
Charles,

S. 29(1)(a), S. 30(1)(b), S. 34(1)(a)(i), S. 35(1)(f)

I suspect that information will come to light as the investigation and root cause analysis is completed.

Deanne

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?

S. 29(1)(a), S. 34(1)(a)(i), S. 35(1)(f)
Folks,

A fire occurred underground at the Churchill Falls plant overnight. There were two fires and both have been extinguished and there are no injuries. No power loss to customers in Labrador.

As a result, there are two units unavailable and an estimated restoration is unknown but suspect it will take a while before both come back online.

Regular updates will come throughout the morning as details emerge.

Deanne

Deanna Fisher
Manager of Corporate Communications & Stakeholder Engagement
709.733.5299 (p)
709.697.3418 (c)

"This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender."
Hi Leanne,

Here's a fairly broad group of Canadian Utilities. I apologize but when I looked at this tonight, bios were included on most, but you can still easy see the titles and overall structure of the utilities, and I wanted to get it along to you.

And we can confirm that from an executive perspective, the incremental change at Hydro is one FTE/position versus the previous structure under John MacIssac.

As I noted today, we are expecting to go to market on the VP Financial Services (existing vacancy) and the VP Transmission & Distribution (& NLSO) position, which became vacant when the incumbent moved to the VP Engineering Services position.

Dawn

Dawn S. Dalley
VP Regulatory Affairs & Customer Service
Leadership Team

KAREN HUTT

President and CEO

Karen Hutt was appointed President and Chief Executive Officer of Nova Scotia Power Inc., effective August 2016.

Karen first joined Nova Scotia Power in 2001 to help implement the company’s customer focused strategy. Since then, through progressively senior roles, she has led a range of customer, business growth and regulatory initiatives in markets as diverse as Canada, New England, New Mexico and Florida.

Previously, as Emera’s Vice President, Mergers and Acquisitions, Karen played an important role in the TECO Energy transaction, helping to secure, advance and close this transformational deal. Prior to that, she served as Emera Energy’s Executive Vice President, Commercial, and, President, Northeast Wind. In all of her roles, Karen has demonstrated a strong focus on building and leveraging strategic relationships, advancing business goals, creating growth, and applying innovative thinking to meet customer needs.

An active supporter of the local community, Karen currently serves as Vice Chair of the IWK Health Centre in Halifax. She is a past Trustee on the IWK Foundation Board, Past-Chair of the Junior Achievement of Nova Scotia Board of Directors and a past Board Member of the Nova Scotia Arthritis Society. Karen has degrees from Acadia University and Mount Saint Vincent University and recently completed the Directors Education Program through the Institute of Corporate Directors and the Rotman School of Management.

MARK SIDEBOTTOM

Chief Operating Officer

Mark is responsible for all operational aspects of Nova Scotia Power. In his previous role as Vice President of Power Generation and Delivery, he used his in-depth knowledge of power management, complemented by his year of experience with the company, to oversee power generation across the province.

Since joining the company in 1988 as a staff engineer, Mark has held numerous positions, including Plant Engineer and Business Manager at the Lingan Generating Station, Manager of Hydro Production, and General Manager of Customer Operations. In 2003, Mark joined Emera as the Director of Operations, responsible for business development. He returned to NS Power in 2005 as the Director of Fuels, Energy and Risk Management where he remained until taking on the role of Vice President of Power Generation and Delivery in 2010.

Mark holds a Bachelor degree in Mechanical Engineering from the Technical University of Nova Scotia, (now part of Dalhousie University), and is a registered Professional Engineer with Engineers Nova Scotia.
Mark is a director on the boards of the Halifax Chamber of Commerce and Junior Achievement (JA) Nova Scotia, and has previously been a board member of JA Cape Breton. Mark has been a member of both the Fossil Advisory Board and the Silicon Island Advisory Board, and is the Generation Council Representative for the Canadian Electricity Association.

JUDITH FERGUSON

Executive Vice President, Regulatory, Legal and Business Planning

Judith was appointed Executive Vice President, Regulatory, Legal and Business Planning on March 1, 2016. Prior to this, she was the Vice President, Corporate Affairs. Judith oversees all legal and regulatory aspects of Nova Scotia Power’s business, and is also focused on the company’s strategic direction and the various ways NSP can contribute to the economic vitality of the province.

Judith retired from the Province of Nova Scotia where she held the position of Deputy Minister of Justice. Prior to this appointment Judith served as Deputy Minister of Labour & Advanced Education, Office of Immigration and Status of Women; Assistant Deputy Minister and then Deputy Minister of Community Services. She began her career in government as a legal advisor for the Nova Scotia Department of Justice.

She holds a Bachelor of Laws degree from Dalhousie University Law School and a Bachelor of Arts degree from the University of King’s College.

Judith recently joined the Board of Directors of Phoenix House and the Nova Scotia Community College and is a past member of the Board of the Children’s Aid Society of Halifax.

CHUCK HARTLEN

Executive Vice President, Customer Experience

Chuck is the newest member of the leadership team, joining Nova Scotia Power in March of 2015. As Executive Vice President, Customer Experience, Chuck focuses on improving services for our customers and advancing technology solutions to improve the overall customer experience. Chuck also helps Nova Scotia Power to improve our connections with communities throughout the province to ensure that the company becomes more focused on working with stakeholders at the community level to better understand their priorities and ways that Nova Scotia Power can contribute to the economic development of the province.

Chuck is the former Senior Vice President of Customer Service with Bell Aliant. He began his career with the former Maritime Telephone and Telegraph (MTT) and has held roles of increasing responsibility over the twenty eight years he worked with the company, through the company’s evolution to Bell Aliant. In his previous role he spearheaded the strategy to transform the customer experience and drove improvements in customer satisfaction across the region. Chuck’s prior roles include Chief Operating Officer, Aliant Mobility; Vice President, Customer Services and Consumer Marketing, Aliant; and Chief
Engineer, Wireless Network Development, MTT.

Chuck graduated from the Technical University of Nova Scotia (now Dalhousie University) with a Bachelor of Engineering degree and a Bachelor of Science in Mathematics degree, and has earned his Professional Engineering designation.

SASHA IRVING

Vice President, Communications and Public Affairs

As Vice President of Communications and Public Affairs, Sasha is responsible for all aspects of communications and government relations for Nova Scotia Power. This includes strategic communication, media relations, stakeholder management and the effective management of relationships with government officials at every level. Sasha is well-versed in the intricacies of the Nova Scotia energy landscape as she joined the NS Power team in 2014 after working as the Director of Corporate Communications at Emera for seven years.

Prior to joining Emera, Sasha was first the Press Secretary and then Communications Director for the Office of Premier Rodney MacDonald, and had been a consultant with MT&L (National) Public Relations. Sasha was born in Northern New Brunswick but grew up in Halifax and has a Bachelor of Commerce Degree from Mount Allison University.

Sasha is a long-time volunteer member and past chair of the Danny Gallivan Cystic Fibrosis Golf Tournament committee and was also a fundraiser and boxing participant in Shelters Nova Scotia’s “Fight for Change” event. Sasha was awarded the Canadian Progress Club’s Women of Excellence Award in Communications and Public Affairs in 2010.

DAVID LANDRIGAN

Vice President, Fuels and Energy

David is responsible for managing the fuel portfolio for all Nova Scotia Power generating stations. This includes NSP’s coal, natural gas, wind turbine and hydroelectric plants, as well as renewable energy purchased from independent producers.

Prior to this role, David was Vice President of Regulatory and Legal Services for Nova Scotia Power, following on experience as Assistant General Counsel for NSP and Vice President of Legal and Regulatory Affairs for Emera Energy. David has provided strategic advice on a broad range of corporate and commercial issues, as well as mergers and acquisitions. Having previously worked with Aliant and the Government of Nova Scotia as a Director of Policy and Regulatory Affairs, David is well-versed in the complexities of regulatory environments. He began his legal career as an advocate at Stewart McKelvey Stirling Scales.

David earned a combined LLB and MBA from Dalhousie University and also has a Bachelor of Commerce degree from Saint Mary’s University. He was admitted as a member of the Nova Scotia Barristers’ Society in 1996.

David served two terms as a board member with the Canadian Corporate Counsel Association and is committed to advancing the practice of law through continuous professional and personal development.
David currently the Chair of the Board of Canadian Cancer Society (Nova Scotia Division) and sits on the Board of Ashburn Golf and Country Club.

CLAUDETTE PORTER

Vice President, Finance

Claudette joined NS Power in 2005, first as Controller and then Vice President of Finance and Information Technology. Claudette took on the role of President and COO of Emera Utility Services in 2013 providing leadership and operational excellence.

Returning to Emera in 2014, Claudette assumed the role of Vice President Emera Finance and recently added Vice President of Finance at NS Power to her responsibilities. Claudette is a graduate of Mount Saint Vincent University and is a Chartered Accountant. Prior to joining the Emera group of companies, Claudette held various senior management positions within the information technology and natural gas industries.

Claudette is a board member for the United Way, an active volunteer with Prostate Cancer Canada and she sits on several Professional Development Committees. She previously served on the board of Symphony Nova Scotia.
OUR MANAGEMENT TEAM

Gaëtan Thomas - President and CEO

Gaëtan was appointed President and CEO of NB Power in February 2010. Before this, he served as the Vice President of NB Power’s Nuclear Division, a position he held since 2005 as well as the position of Vice President of NB Power’s Distribution and Customer Service division.

Gaëtan has a proven track record of over 30 years with operations experience in many areas of our business including Generation, Transmission, Distribution and Customer Service. He also holds a Bachelor of Science Degree in Electrical Engineering from the University of New Brunswick and is a member of the Association of Professional Engineers and Geoscientists of New Brunswick.

Darren Murphy - CFO & Vice President, Corporate Services

In June 2012, Darren was appointed Chief Financial Officer and Vice President Corporate Services. His areas of responsibility include Finance, Environment, Corporate Compliance, and Business Innovation.

Darren joined NB Power’s executive team in 2007, and in addition to his current role, he has held a number of executive positions including Vice President of Distribution and Customer Service and Vice President of Transmission. He worked for over 17 years in Distribution field operations before joining the executive team.

Mr. Murphy is a member of several Boards including the Board of Directors for the Nuclear Waste Management Organization (NWMO), the New Brunswick Investment Management Corporation (NBIMC) and the New Brunswick Energy Marketing Corporation (NBEMC). Darren also has a Bachelor of Business Administration degree from the University of New Brunswick.
Keith Cronkhite - Vice President, Business Development and Generation

Keith is the Vice President of Business Development and Generation at NB Power. He oversees the utility's Strategic planning, Reduce and Shift Demand (RASD), Supply Chain, Fuels, Corporate Business initiatives as well as the Generation division. Keith has held various positions of increasing responsibility in operations and corporate departments at NB Power.

Prior to joining NB Power, he worked in the private sector in Sales and Marketing. Keith has a Bachelor of Business Administration degree from the University of New Brunswick and is a current member of the Canadian Standards Association Technical Committee (CSA) as well as the Atlantic Centre for Energy (AC/E).

Lynn Arsenault – Vice President, Customer Service

Lynn Arsenault was appointed Vice President of Customer Service in October 2014. Her areas of responsibility include Customer Service, Distribution, as well as Transmission construction and maintenance. Lynn will also lead the integration and execution of products and services introduced through Smart Grid and our strategy to reduce and shift the use of electricity.

Lynn was previously Director of Provincial Field Operations and has more than 28 years of experience in customer service, project management and information systems.

Tony O'Hara – Chief Technology Officer and Vice President, Engineering

Tony O'Hara was appointed Chief Technology Officer and Vice President of Engineering in November, 2014. In this role, Tony is responsible for Engineering, Information and Operational Technology, Project Management Office, Asset Management, Distribution System Operations and the NB Power System Operator.
Tony has been with NB Power for 25 years and has held various positions of increasing responsibility in Distribution, Transmission, Project Management, and System Operations.

Tony holds a Bachelor of Science Degree in Electrical Engineering from the University of New Brunswick and is a member of the Association of Professional Engineers and Geoscientists of New Brunswick as well as a member of the New Brunswick Society of Certified Engineering Technicians and Technologists.

**Lori Clark - Vice President of Strategic Initiatives and Regulatory Affairs**

Prior to her appointment as the Vice President and Strategic Initiatives and Regulatory Affairs in September 2015, Lori served as the Executive Director of Regulatory Affairs and Nuclear Improvement for NB Power.

Lori began her career with NB Power and its subsidiary NB Coal in 1990. Since that time, she has held positions of increasing responsibility including Controller, Director of Finance, Managing Director of Finance, and Director of Regulatory Affairs. Lori has led the utility’s rate application processes in the past and has also appeared as a witness for NB Power at several rate hearings.

Lori holds a Bachelor of Business Administration from the University of New Brunswick and is a Chartered Professional Accountant.

**Brett Plummer - Site Vice President and Chief Nuclear Officer**

Brett was appointed Site Vice President and Chief Nuclear Officer at NB Power’s Point Lepreau Nuclear Generating Station in November 2015. He is accountable for leading the Point Lepreau Nuclear Generating Station’s strategic direction to achieve safe, predictable and productive nuclear performance.

Brett’s extensive background includes 34 years of commercial nuclear power plant experience in Operations, Senior Leadership and Project Management roles.

Brett holds a Bachelor of Science degree in Technical Business from New Hampshire College, as well as an Associate of Science degree in Nuclear Engineering Technology from the University of New York. While in the United States Navy, he attended the Naval Nuclear Power School as well as the Naval Electronics Technician School. Additionally, Brett has completed the Institute of Nuclear Power Operations (INPO) Senior Nuclear Plant Management Course.
Wanda Harrison - Corporate Secretary and General Counsel

Wanda joined NB Power in 1989 as Solicitor and Co-ordinator of Regulatory Affairs and then served as Senior Solicitor and Associate Corporate Secretary. Wanda was appointed Corporate Secretary and General Counsel in 2002.

In 2012, in addition to her role as Corporate Secretary and General Counsel, she assumed responsibility for areas of Real Estate, Insurance, CADD/Print Shop, Facilities and Security.

Sherry Thomson - Chief Human Resources Officer

Sherry was appointed Chief Human Resources Officer in November 2014. She has responsibility for all Human Resources functions at NB Power, Corporate Health and Safety as well as First Nations. Sherry has broad experience across the organization including both line operations and corporate roles.

She began her career with NB Power in 1984 and has held positions of increasing responsibility within Human Resources, Generation, Information Systems, Finance, and Customer Service, Distribution & Transmission divisions.

Brent Staeben - Director, Marketing and Communications

Brent came to NB Power in 2012 after a 20 year career with the New Brunswick public service. In that time he was Director of Communications for the Departments of Energy, Transportation and Human Resources Development; this included a decade at Service New Brunswick where he served as director for departments like marketing, communications and customer experience.

Brent has graduate degrees in economics from the University of New Brunswick and Community Health and Epidemiology from Queens and is well known for his volunteer involvement with the New Brunswick music industry.
NEW BRUNSWICK ENERGY MARKETING

Kirby O'Donnell - Executive Director, New Brunswick Energy Marketing

Kirby became the Executive Director of New Brunswick Energy Marketing on October 1, 2013 when the utility re-integrated and formed this new subsidiary. He has been with NB Power for 35 years, serving in various roles in both the Generation and Marketing divisions.

He has overseen many important projects at the utility in management roles at the Dalhousie Generating Station, commissioning of the Belledune Generating Station and was a key player in developing the Energy Marketing group.
Senior Management

Éric Martel
President and Chief Executive Officer

Éric Martel took office as President and Chief Executive Officer of Hydro-Québec in July 2015. In this capacity, he is responsible for the company’s strategic objectives. Mr. Martel immediately set out four priorities for Hydro-Québec: proactive communication, sustained growth of the company’s activities, and improving customer service and productivity.

Prior to this appointment, Mr. Martel worked at Bombardier from 2002 to 2015. He held several senior management positions, including that of President, Bombardier Business Aircraft, where he managed some 12,000 employees throughout the world. He also served as President, Customer Services and Specialized and Amphibious Aircraft. Under his leadership, the Customer Services team expanded its international footprint, generating significant and sustained growth in revenue as well as improving customer satisfaction survey results. He also headed several operational activities.

During his career at Bombardier, Mr. Martel succeeded in implementing a solid quality culture throughout the organization, particularly in the course of his duties as Vice President, Quality. Achieving Excellence System and Transformation.

Before joining Bombardier, Mr. Martel worked for various high-profile international companies in the aerospace manufacturing sector, such as Pratt & Whitney and Rolls Royce, as well as for Procter & Gamble and Kraft Foods.

Éric Martel holds a Bachelor’s degree in electrical engineering (1991) from Université Laval. He has been actively involved in Centraide of Greater Montréal since the early 2000s.

Lise Croteau
Executive Vice President and Chief Financial Officer

Lise Croteau was promoted Executive Vice President and Chief Financial Officer of Hydro-Québec in October 2015, after having served as Vice President – Accounting and Control since 2008. Her mandate includes orienting, developing and overseeing all financial, regulatory and management accounting activities, as well as financial planning, taxation, financial control and risk management. In addition, she is responsible for Hydro-Québec’s financial statements and reports.
Élie Saheb
Executive Vice President - Corporate Development, Strategic Planning and Innovation

Élie Saheb was appointed Hydro-Québec’s Executive Vice President - Corporate Development, Strategic Planning and Innovation effective October 2015. In this capacity, he is in charge of business development and acquisitions as well as the marketing of new technologies developed by the entities under his responsibility, namely Hydro-Québec’s research institute (IREQ) and the company’s technology-based subsidiaries. As an internationally renowned engineer and seasoned manager, Mr. Saheb has a solid understanding of Hydro-Québec, technological innovation and world energy markets.

Richard Cacchione
President of Hydro-Québec Production

In April 2005, Richard Cacchione was appointed President of Hydro-Québec Production. He joined Hydro-Québec in June 2002 as President of Hydro-Québec Équipement and was also President and CEO of the Société d’énergie de la Baie James (SEBJ) between 2003 and 2005.

Marc Boucher
President of Hydro-Québec TransÉnergie

Marc Boucher joined Hydro-Québec in June 2016 as President of Hydro-Québec TransÉnergie. This division operates and develops North America’s most extensive power transmission system, which includes some 34,000 kilometres of lines. It also markets system capacity and manages power flows across Québec. Its assets total more than $20 billion and its annual revenue exceeds $3 billion.

Daniel Richard
President of Hydro-Québec Distribution

Daniel Richard was appointed President of Hydro-Québec Distribution on January 14, 2013. This Hydro-Québec division provides a secure supply of electricity to the Québec market by means of a distribution grid comprising more than 112,000 km of lines. The division has 6,000 employees serving 4 million customers throughout Québec.
Réal Laporte
President of Hydro-Québec Équipement et services partagés and
President and CEO of SEBJ

Réal Laporte joined Hydro-Québec in 1988. Since April 2005, he has been President of Hydro-Québec Équipement and President and CEO of the Société d’énergie de la Baie James (SEBJ). In January 1, 2010, he also became responsible for Hydro-Québec’s shared services centre.

Pierre-Luc Desgagné
Vice President – Corporate Affairs and Secretary General

Pierre-Luc Desgagné took office as Vice President – Corporate Affairs and Secretary General in May 2015. In this capacity, he is notably in charge of legal affairs, communications, public and government affairs, community relations, environmental issues and transportation electrification. He also acts as Secretary for the boards of directors of Hydro-Québec and its subsidiaries.

Bruno Gingras
Vice President – Human Resources

Bruno Gingras was appointed Vice President – Human Resources in May 2011. He joined Hydro-Québec in 1988 and held different management positions in human resources, customer services and distribution.

Jean-Hugues Lafleur
Vice President – Financing, Treasury and Pension Fund

Jean-Hugues Lafleur was named Vice President – Financing, Treasury and Pension Fund in September 2008. He joined Hydro-Québec in 1991 where he has held different management positions.

David Murray
Vice President – Information and Communication Technologies

David Murray took office as Vice President – Information and Communication Technologies at Hydro-Québec in October 2015. In this capacity, he is responsible for activities related to information and telecommunication systems.
Mario Laprise
Internal Auditor
Mario Laprise has been Hydro-Québec’s Internal Auditor since September 2014.

Joëlle Thibault
Corporate Ombudsman
Joëlle Thibault has served as Hydro-Québec’s Corporate Ombudsman since May 1, 2012.
Jeffrey J. Lyash

President and Chief Executive Officer

Jeff Lyash is the President and CEO of OPG. Lyash was formerly the president of CB&I Power where he was responsible for a full range of engineering, procurement and construction of multi-billion dollar electrical generation projects in both domestic and international markets. He also provided operating plant services for nuclear, coal, gas, oil and renewable generation.

Prior to joining CB&I in 2013, Lyash served as Executive Vice President of Energy Supply for Duke Energy. He led engineering, maintenance and operations of the company's 42,000-megawatt generation fleet, fuel procurement, power trading, major projects and construction, environmental programs, and health and safety programs.

Before the merger of Progress Energy and Duke Energy, Lyash served as Executive Vice President of Energy Supply for Progress Energy. In this role, he oversaw Progress Energy's diverse 22,000-megawatt fleet of generating resources including nuclear, coal, oil, natural gas and hydroelectric stations. In addition, he was responsible for generating fleet fuel procurement and power trading operations.

Lyash began his career in the utility industry in 1981, joining Progress Energy in 1993. Before assuming the role of Executive Vice President of Energy Supply, he served as Executive Vice President of Corporate Development, President and Chief Executive Officer of Progress Energy Florida, Senior Vice President of Energy Delivery Florida, and Vice President of Transmission. He also held a wide range of management and executive roles in Progress Energy's nuclear program, including Operations Manager, Engineering Manager, Plant Manager, and Director of Site Operations.

Before joining Progress Energy, Lyash worked for the U.S. Nuclear Regulatory Commission (NRC) in a number of senior technical and management positions throughout the northeast United States and in Washington, D.C., receiving the NRC Meritorious Service Award in 1997.

Lyash earned a Bachelor's Degree in Mechanical Engineering from Drexel University, and was honored with the Drexel University Distinguished Alumnus Award in 2009. He has held a Senior Reactor Operator License from the Nuclear Regulatory Commission, and is a graduate of the U.S. Office of Personnel Management Executive Training Program and the Duke Fuqua School of Business Advanced Management Program.

Glenn Jager

President, OPG Nuclear and Chief Nuclear Officer

Glenn Jager is President, OPG Nuclear and Chief Nuclear Officer at Ontario Power Generation. He was appointed to this position in November 2013. Glenn is also President of Canadian Nuclear Partners, appointed March 31, 2015.

Glenn reports directly to President and CEO Jeffrey Lyash.

Prior to his appointment as CNO, Glenn was the Senior Vice President at Pickering Nuclear. Appointed to this position in August 2011, Glenn was responsible for the strategic direction, planning and execution required to achieve nuclear production targets at Pickering, while focusing on safety and reliability.

Glenn joined OPG (formerly known as Ontario Hydro) in 1981 as a System Engineer at Pickering. He has held positions of increasing responsibility within OPG in training and as Project and System Engineer, Shift Manager, Reactor Projects Manager, Outage Manager, Maintenance Manager, and a two year secondment to the World
Association of Nuclear Operators (WANO) in Atlanta. Upon his return from WANO, Glenn was appointed Director of Operations and Maintenance at Pickering Nuclear, and then as Site Deputy Vice President at Darlington Nuclear.

Glenn has been licensed as a Shift Manager at Pickering and a Duty Manager at both Pickering and Darlington Nuclear stations. He is a graduate of the University of Western in 1981 with a BESc in Electrical Engineering.

Glenn and his family are long-time residents of Bowmanville, Ontario.

Mike Martelli, B.A.Sc., P. Eng.

President, Renewable Generation and Power Marketing

Mike Martelli is President, Renewable Generation and Power Marketing at OPG. He was appointed to his current position in July 2013 and is responsible for leading a team of 1,800 skilled and dedicated employees who operate and maintain OPG’s three operating thermal stations, 65 hydroelectric generating stations and 240 dams on 24 river systems. These stations are located across Ontario and have total capacity of over 9,500 MW.

Mike is a member of OPG’s Enterprise Leadership Team and an officer of the company. He oversees major projects including the Lower Mattagami and New Post Creek hydroelectric projects, fuel conversions of Akitokan Generating Station and Thunder Bay Generating Station from coal to biomass, and asset preservation of Nanticoke and Lambton generating stations to ensure they are available, if required in the future, for conversion to alternate fuels such as natural gas or biomass.

Mike manages OPG’s commercial partnerships with First Nation communities including Lac Seul First Nation and Moose Cree First Nation. The partnerships are partly owned by the First Nation communities and OPG. They demonstrate a successful business model benefiting economic development of local communities and providing clean renewable hydroelectricity to Ontario. He also serves as Chairman of the Board of Portland Energy Centre, a joint venture between OPG and TransCanada that owns and operates a 550 MW combined cycle gas turbine generating station.

Mike joined Ontario Hydro, OPG’s predecessor company, in 1985. Since that time, he has held increasingly responsible senior and executive positions, both in technical functions and plant operations in Renfrew, Thunder Bay and Niagara Falls.

After serving as Director of Engineering for OPG’s hydroelectric organization, Mike was appointed Plant Group Manager for the Northwest Plant Group, in 2007, where he oversaw the safe operation of 11 hydroelectric generating stations. He is proud to have worked on the construction of Obishikokaang Waasiganikewigamig/Lac Seul Generating Station in Ear Falls, which began commercial operation on Feb. 18, 2009. The station was OPG’s first partnership with a First Nation, the Lac Seul First Nation.

From 2010 to 2012 Mike was Plant Group Manager for OPG’s Niagara Plant Group, which includes OPG’s largest hydroelectric station - the Sir Adam Beck II Generating Station. Prior to his appointment as SVP Hydro Thermal Operations, Mike led OPG’s business transformation project, a major initiative to reduce costs, enhance efficiency and seize new revenue opportunities.

A graduate of the University of Waterloo, Mike holds a B.A.Sc. in Mechanical Engineering. He is also a director on the board of the Canadian Hydropower Association.
Carlo Crozzoli, CPA, CA

Senior Vice President, Corporate Business Development

Carlo Crozzoli is Senior Vice President, Corporate Business Development at Ontario Power Generation. Carlo was appointed to this position in December 2011. His primary responsibilities are leading OPG's corporate development activities and directing the strategic planning process. He is an officer of the company and a member of the Enterprise Leadership Team.

Prior to joining OPG, Carlo worked at Ernst & Young in the accounting and audit practice, and later joined its management consulting practice, serving clients primarily in the energy, manufacturing and mining industries.

Carlo has a Bachelor of Commerce degree from Laurentian University; is a Chartered Professional Accountant, and has completed the Construction Industry Institute Executive Leadership Program through the McCombs School of Business at the University of Texas.

Christopher F. Ginther

Senior Vice President, Legal, Ethics and Compliance

Chris Ginther is Senior Vice President, Legal, Ethics and Compliance at Ontario Power Generation. He was appointed to this position in January 2016.

Chris is the primary legal advisor to OPG's senior management and is accountable for the oversight and management of OPG's legal affairs. This includes managing the daily operations of OPG's in-house legal department, selecting and supervising outside counsel, and providing legal advice on major issues and initiatives affecting the Corporation. Chris is a member of the OPG Enterprise Leadership Team and other OPG committees.

As Chief Ethics Officer, Chris is responsible for ensuring the organization's operations are conducted in compliance with ethical business practices, and is accountable to the OPG Board and CEO for the implementation and continual review of OPG's Code of Business Conduct.

Chris is also responsible for OPG's regulatory affairs and environment activities, including regulatory compliance.

Chris received his Bachelor of Arts Degree from the University of Western Ontario in 1983, and graduated from Osgoode Hall Law School in 1986. He received his Master of Laws Degree from Osgoode Hall in 1999.

Chris began his legal career at Torys LLP in Toronto. He has served as Vice President and General Counsel at BCE/Bell and Chief Legal Officer at Ontario Lottery and Gaming Corporation.
Ken Hartwick, CPA

Senior Vice President, Finance, Risk and Strategy, and Chief Financial Officer

Ken Hartwick is Senior Vice President Finance, Strategy, Risk, and Chief Financial Officer at Ontario Power Generation.

Ken was appointed to his position in March 2016. His primary responsibilities are to provide financial leadership and support to OPG’s operational units and support services groups, and lead corporate development, strategic planning, and risk management activities. He also has accountability for financial strategy, controllership, accounting, reporting, business planning, investment planning, taxation, treasury, and pension and nuclear fund management. He is an officer of the Corporation, and a member of the OPG Executive Leadership Team and other OPG committees.

Prior to joining OPG, Ken held a variety of positions at energy and financial companies, including Wellspring Financial, Atlantic Power Corp., Just Energy Group Inc., and Hydro One Inc. Ken began his career at Ernst & Young in the accounting and audit practice, and later joined its management consulting practice, serving clients primarily in the energy, manufacturing, and mining industries.

Ken obtained a Honours Bachelor of Arts degree in Business Administration from Trent University, is a Chartered Professional Accountant (CPA, CA), and serves on a number of boards.

Barb Keenan

Senior Vice President, People, Culture and Communications

Barb Keenan is Senior Vice President, People, Culture and Communications at OPG. She was appointed to her current position in March 2010. Barb is responsible for the development of human resource strategies that support OPG’s business goals, including enhanced employee engagement, employer of choice through recruiting, succession planning and building successful relationships with OPG’s unions and partners. She is also responsible for strategies and programs supporting safety and employee wellness.

Barb joined Ontario Hydro, the predecessor company of OPG, in 1989 and has held various roles in Human Resources. Prior to her current appointment, Barb held the position of Vice President - Nuclear Human Resources and Employee Safety, and Vice President - Corporate Human Resources and Employee Safety. In these roles, Barb has been accountable for the overall management, leadership, direction and support for providing products and services designed to enhance business performance in the areas of leadership development, workforce and succession planning, recruitment, change management, employee communications and nuclear and corporate security. From 2000 – 2006, Barb worked with Capgemini Canada as Vice President – Human Resources for Outsourcing and later the broader organization.

Barb is an Honours Arts graduate from the University of Toronto, a Certified HR Planning Professional and a Certified Human Resources and Compensation Committee Director.
Scott Martin

Senior Vice President, Business and Administrative Services

Scott Martin is Senior Vice President, Business and Administrative Services at OPG. His primary accountabilities are to deliver centre-led services for the corporation including Supply Chain, Information Technology, Real Estate, Facilities and Enterprise Services. He is a member of the OPG Enterprise Leadership Team and is an Officer of the Corporation.

Scott was appointed to his current position in January 2013. Prior to his current role he held a number of positions as Vice President in OPG’s People and Culture organization. Scott has been accountable for a variety of functions, including Human Resources, Labour and Employee Relations, Labour and Employment Law, Corporate Safety and Wellness, Corporate Security, Human Rights, the Ombuds Office and Ethics/Code of Business Conduct. Scott has also held a variety of other positions in the company, including Manager of Facilities Services in the Real Estate and Services organization. In 2004 he received the Power Within President’s Leadership Award.

Scott joined Ontario Hydro, the predecessor company of OPG, in 1990. Scott received his undergraduate degree at the University of Windsor and a Masters of Science degree from the University of Guelph. He was a member of the Advisory Committee of the Centre for Labour Management Relations, Ryerson University, and served over nine years on the Board of Directors for the Infrastructure Health and Safety Association, and its predecessor the Electrical and Utilities Safety Association of Ontario.

Dietmar Reiner, B.A.Sc., P.Eng.

Senior Vice President, Nuclear Projects

Dietmar Reiner is Senior Vice President, Nuclear Projects at Ontario Power Generation Inc. Appointed to this position in May 2014, he is responsible for leading OPG’s nuclear projects’ portfolio, which includes the mid-life refurbishment of the Darlington Nuclear Generating Station.

Prior to this appointment, Dietmar was Senior Vice President, Nuclear Refurbishment, where he was responsible for the planning and execution of the Darlington Refurbishment program.

Dietmar joined Ontario Hydro (OPG’s predecessor company) as an engineer in 1985 and proceeded to hold progressively senior positions in nuclear, hydroelectric and power systems.

In 1998, he served as a member of the technical panel of the Province’s electricity market design committee, where he led the design of the wholesale market rules and guidelines, which launched Ontario’s open electricity market.

In 1999, Dietmar was appointed to the position of Vice President, Commercial Systems where he was responsible for establishing the commercial infrastructure to enable OPG to successfully compete in deregulated electricity markets. He also oversaw OPG’s preparations for the opening of Ontario’s electricity market.

In 2000, Dietmar was appointed to the position of Chief Information Officer, and led the transition of OPG’s internal information systems group to an outsourced services partnership.

In 2008, he was appointed to the position of Senior Vice President, Inspection, Maintenance & Commercial Services where he was responsible for providing specialized inspection and maintenance services to support the safe and reliable operation of OPG’s and Bruce Power’s nuclear generating fleets, as well as the management of OPG’s heavy
water services and isotope sales businesses.

Dietmar has a Bachelor of Applied Science Degree in Honours Electrical Engineering from the University of Waterloo.

**Catriona King**

**Vice President, Corporate Secretary and Executive Office Operations**

Catriona was appointed OPG's Corporate Secretary in June 2005. She provides advice on corporate governance to the OPG Board, Board Chair, President and CEO, as well as OPG's Enterprise Leadership Team. She oversees the Board's governance programs and operations and advises on the company's implementation and compliance with its Memorandum of Agreement with the Shareholder.

Catriona also oversees implementation and compliance with OPG's governance framework for its wholly-owned subsidiaries and joint ventures.

Prior to joining OPG as Assistant Board Secretary in 1999, Catriona spent 16 years with the Ontario Public Service in a variety of roles with the Ministries of Energy, Energy and Environment and Colleges and Universities. These positions included: Policy Advisor for Petroleum Products, Executive Assistant to the Deputy Minister, Manager of Corporate and Strategic Planning, and Director of the Colleges Branch where she was responsible for governance and operating and capital grants to Ontario's community colleges.

**Ted Gruetzner**

**Vice President, Corporate Relations and Communications**

Ted was appointed Vice President, Corporate Relations and Communications in July 2014. He is responsible for internal and external communications, media relations, brand management, digital and social media, stakeholder outreach, and First Nations and Métis relations.

After working in media and public relations in other fields, Ted started his energy career in the media and employee communications department of Ontario Hydro. He then joined the IESO during the opening of the energy markets and later worked at the Ministry of Energy. He rejoined OPG in 2006 as Manager, Community Relations at the Portlands Energy Centre during its construction period.

In 2008, Ted was named Manager, Media Relations and became Director, Provincial Relations in 2012, where he worked to strengthen relations with a number of key stakeholders. Ted also served as OPG's media spokesperson for a number of years.
The executive officers and their direct reports are outlined below.

### President and CEO, Manitoba Hydro

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>President and CEO</td>
<td>Kelvin Shepherd</td>
</tr>
<tr>
<td>Government Relations &amp; Corporate Issues</td>
<td>Dori Chudobiak</td>
</tr>
</tbody>
</table>

### Corporate Communications & Public Affairs

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice-President, Corporate Communications &amp; Public Affairs</td>
<td>Siobhan Vinish</td>
</tr>
<tr>
<td>Creative Services</td>
<td>Tim Philippi</td>
</tr>
<tr>
<td>Public Affairs</td>
<td>Scott Powell</td>
</tr>
</tbody>
</table>

### Corporate Relations

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice-President, Corporate Relations</td>
<td>Ruth Kristjanson</td>
</tr>
<tr>
<td>Indigenous Relations</td>
<td>Elissa Neville</td>
</tr>
</tbody>
</table>
### Corporate Relations

<table>
<thead>
<tr>
<th>Corporate Planning &amp; Strategic Review</th>
<th>Ian Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnerships &amp; Stakeholder Initiatives</td>
<td>Vicky Cole</td>
</tr>
</tbody>
</table>

### Customer Care & Energy Conservation

<table>
<thead>
<tr>
<th>Vice-President, Customer Care &amp; Energy Conservation</th>
<th>Lloyd Kuczak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Energy</td>
<td>Colleen Galbraith</td>
</tr>
<tr>
<td>Business Support Services</td>
<td>Paul Chard</td>
</tr>
<tr>
<td>Consumer Marketing &amp; Sales</td>
<td>Lois Morrison</td>
</tr>
<tr>
<td>Industrial &amp; Commercial Solutions</td>
<td>Dale Friesen</td>
</tr>
<tr>
<td>Gas Market Analysis</td>
<td>Brent Sanderson</td>
</tr>
<tr>
<td>Gas Supply Transport &amp; Storage</td>
<td>Lori Stewart</td>
</tr>
</tbody>
</table>
### Customer Care & Energy Conservation

**Power Smart Planning, Evaluation & Research**
- Cheryl Pilek

### Customer Service & Distribution

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice-President, Customer Service &amp; Distribution</td>
<td>Brent Reed</td>
</tr>
<tr>
<td>Business Support &amp; Capital Management</td>
<td>Mark Prydun</td>
</tr>
<tr>
<td>Customer Service Operations (Winnipeg &amp; North Region)</td>
<td>Dave Case</td>
</tr>
<tr>
<td>Customer Service Operations (South Region)</td>
<td>Vacant</td>
</tr>
<tr>
<td>Distribution Engineering &amp; Construction</td>
<td>Chuck Steele</td>
</tr>
</tbody>
</table>

### Finance & Regulatory

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice-President, Finance &amp; Regulatory</td>
<td>Darren Rainkie</td>
</tr>
<tr>
<td>Corporate Controller</td>
<td>Sandy Bauerlein</td>
</tr>
</tbody>
</table>
### Finance & Regulatory

<table>
<thead>
<tr>
<th>Department</th>
<th>Contact Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rates &amp; Regulatory Affairs</td>
<td>Gregory Barnlund</td>
</tr>
<tr>
<td>Subsidiary Operations</td>
<td>Shawna Pachal</td>
</tr>
<tr>
<td>Treasury</td>
<td>Manfred Schulz</td>
</tr>
<tr>
<td>Financial Planning</td>
<td>Liz Carriere</td>
</tr>
<tr>
<td>Corporate Risk Management</td>
<td>Donald Deviaene</td>
</tr>
</tbody>
</table>

### General Counsel & Corporate Secretary

<table>
<thead>
<tr>
<th>Role</th>
<th>Contact Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice-President, General Counsel &amp; Corporate Secretary</td>
<td>Ken Tennenhouse</td>
</tr>
<tr>
<td>Assistant General Counsel</td>
<td>Patti Ramage</td>
</tr>
<tr>
<td>Insurance Services</td>
<td>Tino Brambilla</td>
</tr>
<tr>
<td>Internal Audit</td>
<td>Darrell Briscoe</td>
</tr>
</tbody>
</table>
## Generation Operations

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice-President, Generation Operations</td>
<td>Lorne Midford</td>
</tr>
<tr>
<td>Engineering Services</td>
<td>Joel Wortley</td>
</tr>
<tr>
<td>Generation North</td>
<td>John Kreml</td>
</tr>
<tr>
<td>Generation South</td>
<td>Bob Dandenault</td>
</tr>
<tr>
<td>Keeyask Project</td>
<td>Dave Bowen</td>
</tr>
<tr>
<td>Power Sales &amp; Operations</td>
<td>David Cormie</td>
</tr>
<tr>
<td>Power Planning</td>
<td>Terry Miles</td>
</tr>
<tr>
<td>Project Services</td>
<td>Jeff Strongman</td>
</tr>
</tbody>
</table>

## Human Resources & Corporate Services

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice-President, Human Resources &amp; Corporate Services</td>
<td>Bryan Luce</td>
</tr>
</tbody>
</table>
### Human Resources & Corporate Services

<table>
<thead>
<tr>
<th>Department</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resources</td>
<td>Gary Maksymyk</td>
</tr>
<tr>
<td>Business Support</td>
<td>Bo Hancox</td>
</tr>
<tr>
<td>Corporate Environmental Management</td>
<td>Alec Stuart</td>
</tr>
<tr>
<td>Information Technology</td>
<td>Rob Lanyon</td>
</tr>
<tr>
<td>Workplace Safety &amp; Health and Corporate Services</td>
<td>Brad Ireland</td>
</tr>
</tbody>
</table>

### Transmission

<table>
<thead>
<tr>
<th>Department</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice-President, Transmission</td>
<td>Shane Mailey</td>
</tr>
<tr>
<td>Apparatus Maintenance</td>
<td>Quinn Menec</td>
</tr>
<tr>
<td>Bipole III Project</td>
<td>Rob Elder</td>
</tr>
<tr>
<td>HVDC</td>
<td>John McNichol</td>
</tr>
<tr>
<td>Transmission</td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Transmission Construction &amp; Line Maintenance</td>
<td>Glenn Penner</td>
</tr>
<tr>
<td>Transmission Planning &amp; Design</td>
<td>Gerald Neufeld</td>
</tr>
<tr>
<td>Transmission System Operations</td>
<td>Tony Clark</td>
</tr>
</tbody>
</table>
Mike Marsh  
President and Chief Executive Officer

Diane Avery  
Vice-President, Customer Services

Guy Bruce  
Vice-President, Planning, Environment and Sustainable Development

Tim Eckel  
Vice-President, Transmission Services

Ted Elliott  
Vice-President, Distribution Services

Kory Hayko  
Vice-President, Commercial and Industrial Operations, and President and CEO NorthPoint Energy Solutions

Sandeep Kalra  
Vice-President, Finance and Chief Financial Officer

Howard Matthews  
Vice-President, Power Production, and President and CEO SaskPower International

Mike Monga  
President, Carbon Capture and Storage Initiatives

Grant Ring  
Vice-President, Procurement and Supply Chain

Brad Strom  
Vice-President, Information Technology and Security, and Chief Information Officer

Rachelle Verret Morphy  
Vice-President, Law, Land and Regulatory Affairs, General Counsel and Assistant Secretary

Brian Ketcheson  
Vice-President, Human Resources, Safety and Stakeholder Relations
Senior Management

Phonse Delaney - President and Chief Executive Officer

Mr. Phonse Delaney was appointed President and Chief Executive Officer of FortisAlberta on June 30, 2014. Prior to this, Mr. Delaney held the position of Executive Vice President, Operations, Engineering and Information Technology of FortisAlberta, a position he held since 2008.

Mr. Delaney began his career with the Fortis group of companies with Newfoundland Power in 1987, where he served in various roles including Vice President of Engineering and Operations. He holds a Bachelor of Electrical Engineering from Memorial University and is a member of the Association of Professional Engineers and Geoscientists of Alberta. Mr. Delaney currently serves on the Board of Directors of FortisBC, the Canadian Electricity Association and the Western Energy Institute. He also serves on the Board of Directors of Homens, a Calgary-based arts organization. He previously served on the Board of Directors of Newfoundland Power, the Memorial University Advisory Council to the Faculty of Engineering and on the Board of Directors of the Newfoundland and Labrador Safety Council.

Cam Aplin - Vice President, Operations

Mr. Aplin brings more than 20 years of experience in the power line trade. He is a Journeyman Power Line Technician who has held increasingly senior leadership roles including managing our training facility and work methods. He also served as Director for a region of our service territory, and as a director in our engineering, procurement and construction areas. Mr. Aplin currently serves on the Western Energy Institute Electric Board Committee. He is a graduate of the Queen's University Executive Leadership program.

Karl Bomhof - Vice President, Corporate and Customer Service

Mr. Bomhof is the Vice President, Corporate and Customer Service for FortisAlberta. As the member of the Executive Team responsible for Customer Service, Mr. Bomhof's role includes accountability for the Company’s relationships with its customers and other key stakeholders, including government and other public agencies. His Corporate Service responsibilities include oversight of Human Resources, Corporate Communications, Legal Affairs and the Corporate Secretariat. A lawyer by profession, Mr. Bomhof began his career with FortisAlberta as corporate counsel before taking on progressively wider responsibilities with the business, including the roles of Director, Human Resources and Vice President, General Counsel and Corporate Secretary. Before joining FortisAlberta in 2006, Mr. Bomhof had practiced law for more than 10 years at two large corporate law firms in Calgary. Mr. Bomhof earned his Bachelor of Laws from Dalhousie University and his Bachelor of Arts (Political Science) from the
University of British Columbia. He is a member of the Law Societies of Alberta and British Columbia.

Curtis Eck - Vice President, Engineering

Mr. Eck has more than 20 years of experience in the electricity industry, including a high level of engineering expertise and a broad exposure to Alberta’s regulatory environment. In his role of Vice President, Engineering, Mr. Eck is responsible for the strategic oversight of the Company’s capital expenditure program and providing leadership and direction for the Company’s engineering, system operations, and supply chain management functions. Previously, Mr. Eck was Vice President, Customer Care and Operations for Belize Electricity Limited. He holds a Masters of Engineering degree from the University of Colorado and is a registered Professional Engineer in Alberta.

Janine Sullivan - Vice President, Finance and Chief Financial Officer

Ms. Sullivan brings more than 20 years of finance and regulatory experience, including Director roles with FortisAlberta and Newfoundland Power. In her previous role as Director of Regulatory and Financial Planning, Ms. Sullivan established regulatory policy, including leading the organization through a change in distribution utility regulation, and implemented related financial strategies. Ms. Sullivan holds a Bachelor of Commerce degree from Memorial University in St. John’s, Newfoundland and Labrador, and is a Chartered Accountant and member of the Institutes of Chartered Accountants of Alberta and Newfoundland and Labrador.

Rob Tisdale - Vice President, Customer and Information Services

Mr. Tisdale brings more than 18 years of experience in information technology and finance to his role providing support improvements in customer service through technology enhancements. In his role as Vice President, Customer and Information Services, Mr. Tisdale is responsible for leveraging our existing technology to improve customer service and productivity. Prior to this, he held manager roles in Enterprise Solutions and Business Solutions for our company. Mr. Tisdale holds a Bachelor of Commerce degree from the University of Alberta, is a graduate of the Queen’s University Executive Leadership program and he holds a Certified Management Accountant designation.
Executive team

Gianna Manes
President and Chief Executive Officer

Pat MacDonald
Executive Vice President
People, Communications, and Engagement

James McKee
Executive Vice President, Technical Services

Dale McMaster
Executive Vice President, Power Delivery

Dave Rehn
Executive Vice President, Competitive Energy

Helen Wesley
Executive Vice President and Chief Financial Officer

Erica Young
Executive Vice President, Regulatory and Chief Legal Officer

Rob Hemstock
Special Counsel to CEO

Lonnie Enns
Senior Vice President, Energy Marketing

Tamera Van Brunt
Vice President, Communications and Engagement

Diana Stephenson
Chief of Staff and Shareholder Relations
Stuart Lee

President & Chief Executive Officer

Stuart Lee became President & Chief Executive Officer of EPCOR Utilities Inc. in September 2015. He is responsible for the strategic direction and growth of the company, and achieving operational excellence across its power and water businesses in Canada and the U.S. southwest.

Stuart is a seasoned business executive with extensive financial and commercial expertise. Before joining EPCOR, Stuart spent six years with Capital Power Corporation, most recently as the Senior Vice President of Corporate Development and Commercial Services.

From 2009 to 2011, Stuart was President and Director of Capital Power Income LP, a publicly traded subsidiary of Capital Power Corporation. This was a $2 billion enterprise value business with 20 plants across North America.

Stuart holds a Bachelor of Commerce from the University of Alberta and is a chartered accountant. He serves on the Board of STARS (Shock Trauma Air Rescue Service), the Audit Committee for the University of Alberta and recently completed a term with the Board of Directors of Edmonton's Citadel Theatre.

Guy Bridgeman

Senior Vice President & Chief Financial Officer

Guy is responsible for corporate finance, treasury, strategic planning, corporate development, internal audit and risk management functions within EPCOR.

Prior to his current appointment, Guy Bridgeman served as Senior Vice President, Strategic Planning and Development and Senior Vice President of Distribution & Transmission and Energy Services. Guy joined EPCOR as Director of Regulatory Affairs in 1995. He played a central role in acquisitions in Alberta and Ontario and the development of the Alberta Power Purchase Arrangements, EPCOR's first Regulated Rate Option Energy Price Setting Plan. More recently, he was EPCOR lead on the Heartland Transmission Project partnership with AltaLink Ltd., which is constructing a 500 kV transmission line in the Capital Region.

Prior to joining EPCOR, Guy was a senior economist with the Alberta government's Department of Energy, focusing on oil and gas regulatory issues. He played a leading role in the province's first round of electricity industry deregulation initiatives, introduced in 1996. Guy holds a Ph.D. in Economics from the University of Western Ontario and is a graduate of Harvard Business School's Advanced Management Program. He has also achieved ICD.D designation from the Institute of Corporate Directors. Guy serves on the Board of Directors of Edmonton's River Valley Alliance and is a member of the United Way Alberta Capital Region Campaign Cabinet.
John Elford

Senior Vice President, Water Canada

John Elford is Senior Vice President of EPCOR Water Canada, which provides drinking water and wastewater treatment services to more than 85 communities in Western Canada, including over 1 million people in the Edmonton region. EPCOR also provides water and wastewater services to industrial clients like Suncor and Albian Sands in Fort McMurray.

Since joining EPCOR in 2004, John has held several roles including responsibilities for regulatory affairs, planning and project delivery, corporate finance, generation, metering and wholesale energy and asset management. Most recently John held the role of Divisional Vice President Distribution and Transmission Operations in Electricity Operations.

John is a graduate of the University of Alberta with a Bachelor of Commerce degree and a Masters of Business Administration.

Joe Gysel

President, EPCOR Water USA

As President of EPCOR Water (USA) Inc., an indirect wholly-owned subsidiary of EPCOR Utilities Inc. (EUI), Joe is responsible for water operations in the United States. EPCOR Water USA provides water and wastewater services to over 350,000 people through 202,000 service connections in 22 communities and seven counties across Arizona and New Mexico.

Joe is also responsible for EPCOR Water USA’s growing investment and presence in the southwestern United States. Prior to this assignment, Joe was Senior Vice President, New Business Enterprises with EUI, responsible for EUI water business development across Canada and the U.S. Previous positions with EUI also included senior responsibilities in energy origination and plant development.

Before re-joining EUI in 2000, Joe was Director of Wholesale and Commercial Markets at Encore Energy Solutions L.P., EPCOR’s joint venture with Engage Energy, providing transitional consulting services in deregulating markets, including Alberta, Ontario, and California.

Joe has a Bachelor of Commerce degree from the University of British Columbia with a double major in Marketing and Urban Land Economics. In 2008, he completed the Harvard Advanced Management Program.

Joe currently serves as President of the National Association of Water Companies and on the Advisory Board of Arizona State University's Kyl Center for Water Policy at the Morrison Institute. He is a member of the external advisory committee of the Water Resources Research Council at the University of Arizona.
as well as the University of Arizona’s Water, Environmental and Energy Solutions External Advisory Board. In addition, Joe is a member of Greater Phoenix Leadership and the Canada Arizona Business Council.

Frank Mannarino

Senior Vice President, Electricity Operations

In his role as Senior Vice President, Electricity Operations, Frank leads EPCOR’s Distribution and Transmission (EDTI) businesses. His team is responsible for the safe and reliable delivery of power to customers in the city of Edmonton, Alberta, along with wholesale energy transmission and sales, retail distribution and metering. Overall, EDTI distributes approximately 14% of the province’s energy consumption.

Before being appointed to his current position, Frank was Divisional Vice President of Municipal Operations at EPCOR Water Canada, responsible for water, wastewater and water distribution operations in all Canadian municipalities that EPCOR serves.

Frank held a number of senior roles in business and operations at Shell Canada prior to joining EPCOR in 2010. He holds a BSc in Chemical Engineering and an MBA, both from the University of Alberta. Frank serves on the Board of Directors of Edmonton’s Telus World of Science.

Jamie Pytel

General Counsel and Corporate Secretary

Jamie oversees the delivery of all Canadian legal services for EPCOR, as well as compliance, regulatory, ethics and privacy functions. She is also responsible for corporate emergency preparedness and business continuity, physical security, facility management of EPCOR Tower and corporate supply chain/procurement. As Corporate Secretary, Jamie works closely with EPCOR’s leadership and Board of Directors on corporate governance. Jamie joined EPCOR in 1996 to oversee EPCOR’s litigation and claims process, and over time her role was expanded to include various other responsibilities.

Jamie holds a B.A. in English (1989), a law Degree (1992) and completed her MBA in May 2016, all from the University of Alberta. Prior to joining EPCOR, Jamie was a private practice litigation lawyer. Jamie previously held the role of President of the Board of WINHouse, President of the Board of the Alberta Chapter, Canadian Hemophilia Society and was a Board member on the National Board of the Canadian Hemophilia Society. She also sat as a member of the Canadian Blood Services Regional Blood Council and was a member of EPCOR’s Community Essential Council.
Amanda Rosychuk

Senior Vice President, Corporate Services

Amanda Rosychuk is responsible for providing leadership and governance in the cross-company functions of Human Resources, Information Services and Public and Government Affairs.

Prior to this position, Amanda served as Divisional Vice President, Business and Technical Services for EPCOR Water Services, where she was responsible for all shared services provided to Canadian operating regions.

Since joining EPCOR in 1992, Amanda has held senior management positions in areas across the company, including Distribution & Transmission, customer care, business systems, and business development. Amanda holds a B.Sc in Electrical Engineering from the University of Alberta and is a graduate of its Executive MBA program.

Currently, Amanda serves on the Board of Directors of Women Building futures and is also on the Board of Directors of Waste RE-solutions Edmonton.

Stephen Stanley

Senior Vice President, Commercial Services

Steve Stanley is Senior Vice President, Commercial Services, responsible for EPCOR’s business development activities and our technologies business which services the City of Edmonton’s street signals, lighting and Light Rail Transit (LRT) work.

Prior to this, Steve served as Senior Vice President of EPCOR Water Canada, responsible for providing water and wastewater treatment services to more than 85 communities. Under his leadership, the company expanded its operations across Alberta, and into British Columbia and Saskatchewan.

Steve holds a B.Sc. in Civil Engineering, an M.Sc. in Water Resources Engineering, and a Ph.D. in Environmental Engineering, all from the University of Alberta. He is also a graduate of the Executive Program at Queen’s University.

Steve is one of Canada’s leading experts in water treatment and associated infrastructure. Prior to joining EPCOR, he was a professor at the University of Alberta’s Department of Civil and Environmental Engineering. He currently serves on a number of boards, including the Board of Directors of the Alberta Chamber of Resources and the University of Alberta’s External Advisory Council for the School of Public Health.
Executive Team

- Jessica McDonald, President & CEO
- Chris O'Riley, Deputy CEO & Capital Infrastructure Project Delivery
- Teresa Conway, President & CEO, Powerax
- Greg Reimer, Executive Vice-President, Transmission, Distribution & Customer Service
- Cheryl Yaremko, Executive Vice-President, Finance & Supply Chain and Chief Financial Officer
- Ray Aldeguer, General Counsel
- Janet Fraser, Senior Vice-President, Corporate Affairs and Chief Human Resources Officer
- Mark Poweska, Senior Vice-President, Training, Development and Generation
- Hugo Shaw, Senior Vice-President, Safety, Security and Emergency Management
Senior Management Team

The Senior Management team includes:

Andrew Hall, President and C.E.O.
Michael Brandt, Vice-President
Harjit Bajwa, Director of Engineering Services
Ed Mollard, Chief Financial Officer
Guy Morgan, Director of Operations
Goran Sreckovic, Director of Resource Planning & Regulatory Affairs
Yes, looks good, thank you - please move to Tracy.

Original Message

From: Comden, Leanne
Sent: Tuesday, August 30, 2016 10:33 AM
To: Parsons, Walter <WalterParsons@gov.nl.ca>
Cc: Snook, Corey <coreysnook@gov.nl.ca>

 Subject: HP TRIM CORRESPONDENCE-OUTGOING : OCOR-23885 : Minister Coady's response to regarding Muskrat Falls, Discussions with Hydro Quebec and Separation of NL Hydro

Hi Walter,

This response has been revised to incorporate your feedback. If you are okay with the changes, I can format and deliver a hard copy to Tracy for her review.

Thanks
Leanne

------< HP TRIM Record Information >------
As discussed.
NEG/ECP – Background Note - in the Canada Free Trade Agreement
Intergovernmental Affairs Secretariat

Overview: This note provides a brief overview of related to the Agreement on Internal Trade or AIT, since renamed the Canada Free Trade Agreement.

Background and Current Status:
- A brief update on litigation in the QC courts related to Hydro-Quebec (HQ) and Churchill Falls (Labrador) Corporation Ltd. (CF(L)Co) may be found in the background note on Current Energy Issues in the Eastern Canadian Provinces at Tab 5.

Analysis:

Prepared/Reviewed by: G. Clarke/ P. Scott
Approval: S. Dutton
August 22, 2016
Marshall, Andrea

From: Parsons, Walter
Sent: Thursday, September 01, 2016 7:02 PM
To: Shea, Erin
Cc: English, Tracy; Bown, Charles W.
Subject: Re: Media Inquiry: CBC - What happens if we pull the plug at Churchill Falls?

I have seen Nalcor's explanation for this in the past. Essentially, the 1969 power contract allows Hydro-Quebec to take control of the plant if CFLCo fails to meet its obligations. Nalcor is best placed to provide a complete response.

Walter

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Shea, Erin
Sent: Thursday, September 1, 2016 6:48 PM
To: Coady, Siobhan; Bown, Charles W.; English, Tracy; Parsons, Walter
Cc: Quinton, Diana
Subject: Media Inquiry: CBC - What happens if we pull the plug at Churchill Falls?

Please see the below message from Ted Blades of On The Go. He wants someone who can tell him "what our legal obligations are, and what might happen if we pulled the plug" and he will take an email or a person for the show tomorrow. Is his question best directed to Nalcor?...

Thanks,
E.

From: Ted Blades [mailto:ted.blades@cbc.ca]
Sent: Thursday, September 01, 2016 5:45 PM
To: Shea, Erin
Subject: What happens if we pull the plug at Churchill Falls?

Erin -

OTG has featured lots of coverage this week about the end of the first Upper Churchill contract and the automatic renewal. It's prompted a number of OTG listeners to suggest that we just stop sending Quebec the power and tell them "see you in court".

I wondering who can tell me what our legal obligations are, and what might happen if we pulled the plug.

I'd like to get something on this - a person, an email - for Friday's On The Go

Please let me know what's possible.
Ted Blades,
Host of On The Go,
Weekdays at 4:00 - 6:30
(3:30 - 6:00 in most of Labrador)
on CBC Radio One, in St. John's
Ph) 709-576-5273 ——— S. 40(1)
ted.blades@cbc.ca
Marshall, Andrea

From: Bown, Charles W.
Sent: Friday, September 02, 2016 2:13 PM
To: Shea, Erin; English, Tracy; Parsons, Walter
Cc: Quinton, Diana
Subject: Re: FOR APPROVAL: Media Request - NTV: Hydro-Quebec Relations

I'm ok

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Shea, Erin
Sent: Friday, September 2, 2016 12:38 PM
To: Bown, Charles W.; English, Tracy; Parsons, Walter
Cc: Quinton, Diana
Subject: FOR APPROVAL: Media Request - NTV: Hydro-Quebec Relations

Please see the following statement in blue for approval to be provided to NTV’s Danielle Barron. Premier and Minister are not available, so a statement from NR is suggested. Danielle is requesting an update on relations with HQ and the long-term plan for hydro power:

"We are always open to conversations with the Government of Quebec; they have signaled to us that they would like to have a better relationship. We are certainly open to that. Our priority is to ensure reliability of power and we must keep rates as low as possible for the people of the province. Hydro Quebec is a part owner of the Churchill Falls plant and has been for many years, and we understand that Nalcor and Hydro Quebec have been establishing a working relationship."

Thanks,
E.

From: Danielle Barron [mailto:dbarron@ntv.ca]
Sent: Friday, September 02, 2016 10:36 AM
To: Shea, Erin
Subject: Hydro-Quebec

Hi Erin,

I’m following up on a statement yesterday from Keith Hutchings (copied below). Wondering if the Minister might be available to discuss relations with Hydro-Quebec and the long term plan for hydro power. I realize the below asks on the Premier to clarify, but I thought the Minister might be more familiar with the file, I am however also reaching out to the Premier’s Office. If no one is available for an on-camera, a statement might suffice.

Please let me know if an interview can be arranged.

Thanks in advance for the help!
Office of the Official Opposition

NEWS RELEASE

September 1, 2016
For Immediate Release

What Mandate has the CEO of Nalcor Been Given by Liberal Government to Initiate Negotiations with Hydro-Québec?

Keith Hutchings, Natural Resources Critic for the Official Opposition, said, "Premier Ball must disclose the mandate the provincial government has given to Nalcor and its new CEO for talks with Hydro-Québec."

"This is the date when Quebec will begin receiving Upper Churchill hydro power at an even lower rate under the terms of the infamously lopsided 1966 Upper Churchill Contract," said Hutchings.

"Quebec is reaping an enormous windfall while we get pennies. For every dollar they earn, we will get two cents. For their estimated one billion a year, we will get just $20 million. Our collective efforts to right this wrong have been rebuffed at every turn, but it certainly should give us the moral high ground in moving forward on new projects like Gull Island and other negotiations, such as power access and transmission access," said Hutchings.

"Mr. Ball attended the New England Governors meeting recently - without the province's Natural Resources Minister - where the Premier's messaging has certainly left people confused on what his government provincial energy policy is. In the past, he has said we will not be able to sell the surplus Muskrat Falls power and the project is overbuilt, while now he seems to be saying there will be no surplus power to sell," said Hutchings.

"What is the province discussing with Hydro-Québec? Are the Liberals considering the sale of Muskrat Falls power to Quebec? Will any talks involve redress of the 1966 contract as we look to 2041 and the expiry of the current contract? Is the province actively negotiating with Hydro-Québec for Gull Island development or access to the Quebec grid, which has constrained an east-west energy transfer for decades?"

Our 2007 Energy Plan outlined the building of an energy warehouse through renewable and nonrenewable resources, including wind energy, natural gas, oil, small hydro and alternative resources. Where do these alternatives fit into the equation for this Liberal administration? We don't know because they have not said, and have been absent in articulating a clear energy policy for this province.

"Is this Liberal government making headway with Ottawa and other provinces for a national energy plan that includes interprovincial transmission rights for electricity? Would Ottawa also help with other green energy projects, such as Gull Island? Ottawa ought to feel some obligation for denying us national transmission rights in the 1960s that might have enabled our province to get a more-balanced Upper Churchill Contract. Are these considerations at play as the new CEO
looks forward to working with Hydro-Québec and as the current government talks about energy with Ottawa and the provinces? These are questions that require more answers, clarity, openness and transparency.

"The Liberals seem to be using the previous government’s 2007 Energy Plan as their template, as we saw in their recent re-affirmation of Nalcor’s offshore seismic work. But an update is required on the hydro power aspect of that plan today.

"What are the province’s plans in advance of 2041, when the Upper Churchill enters a new phase and our province could be positioned to reap a fair share of the dividends for the first time?

"Are there plans for privatization, or a greater private sector role in current developments or any of the other developments?

"It’s time for full disclosure. These energy resources are the people’s, and it’s important for the people to reap the benefits."

- 30 -

Media Contact: Heather MacLean, Director of Communications, Office of the Official Opposition, (709) 729 6105, heathermaclean@gov.nl.ca
From: English, Tracy  
Sent: Tuesday, September 06, 2016 1:37 PM  
To: Bown, Charles W.  
Subject: AIT Energy Memo  

As discussed. Meaghan has provided comments which have been incorporated into the document. Call me if you have any questions.

Tracy
Charles,

As requested, a review of the offers proposed by the other jurisdictions related to energy was undertaken. This review encompassed the offers made by other provinces on August 8, 2016.

Note: pages 8-12 have been withheld in full under sections 29(1)(a), 34(1)(a)(i), and 35(1)(f). Section 34(1)(b) also applies to the majority of the content on these pages.
Marshall, Andrea

From: Parsons, Walter
Sent: Wednesday, September 07, 2016 12:57 PM
To: Snook, Corey
Subject: FW: Media release: Declaratory Judgement Case - Decision to Appeal
Attachments: FAQ - Declaratory Judgement - Appeal - Sept 6 2016 V2.docx; Media Release - DJ - V2.docx

From: Quinton, Diana
Sent: Wednesday, September 7, 2016 12:54 PM
To: Coady, Siobhan; Bown, Charles W.; Parsons, Walter; Shea, Erin; Sheppard, Megan
Subject: Media release: Declaratory Judgement Case - Decision to Appeal

Attached are the DRAFT media statement and Q&As from Hydro for the Declaratory Judgement appeal being filed today at 2:30 pm. The statement will be issued shortly after the appeal is filed.

From: Quinton, Diana
Sent: Tuesday, September 06, 2016 5:39 PM
To: Coady, Siobhan; Bown, Charles W.; Parsons, Walter; Shea, Erin; Sheppard, Megan
Subject: Fw: Declaratory Judgement Case - Decision to Appeal

Please see below.

Sent from my BlackBerry 10 smartphone on the Bell network.

From: CaraPike@nalcorenergy.com
Sent: Tuesday, September 6, 2016 4:42 PM
To: Quinton, Diana; Shea, Erin
Cc: karenoneill@nalcorenergy.com
Subject: Declaratory Judgement Case - Decision to Appeal

Hello Diana,

As per my voice mail, we are filing our decision to appeal the Declaratory Judgement case tomorrow with the Quebec Court of Appeal. We are planning to issue a statement tomorrow. I will send along the statement and Q&A's to you as soon as they are signed off on this evening/tomorrow morning.

Could you please notify and forward to the appropriate people.

If you have any questions, please feel free to give me a call on my cell 685-9290.

Cara Pike
Sr. Communication Advisor
Corp. Comm. & Shareholder Rel.
Nalcor Energy
Frequently Asked Questions – Declaratory Judgement - Decision to Appeal

Q1. Can you please provide an explanation of what the Declaratory Judgement case is about? CF(L)Co and Hydro Quebec have different interpretations of their respective rights under the Power Contract and the Renewal Contract on two specific issues:

1. Continuous Energy – which is a defined term in the Renewal Contract. It is CF(L)Co’s interpretation that “Continuous Energy” is a fixed quantity of energy that Hydro Quebec is entitled to each month. CF(L)Co has rights to energy beyond this monthly block. Hydro Quebec’s interpretation is that “Continuous Energy” is merely a payment term, and not a limit on the amount of energy they can schedule from Churchill Falls. There is no limitation on their energy entitlement.

2. CF(L)Co’s right to sell interruptible power under the Power Contract and the Renewal Contract. CF(L)Co’s position is that it has the right to undertake and benefit from new commercial opportunities while still respecting its existing contractual obligations to its customers, including Hydro Quebec. This includes the right to sell interruptible power when plant capacity is not being used. Hydro Quebec’s interpretation is that un-scheduled capacity at the plant must remain idle at all times for Hydro Quebec to schedule and that CF(L)Co’s rights are limited to the Recapture block (300 MW) and the Twinco block (225 MW).

The Supreme Court ruled in HQ’s favor on both issues.

Q2. Is the Declaratory Judgement Case connected with/have anything to do with the Good Faith Case? The Declaratory Judgement Case is a separate, unrelated legal action and is not connected with the Good Faith decision that was released on August 1.

Further explanation:
The Good Faith case was brought to the Court by CF(L)Co to request a change in pricing terms for the sale of power to Hydro Quebec. CF(L)Co brought this motion forward to address the significant inequities in benefits realized by Hydro Quebec vs CF(L)Co under the Power Contract and Renewal Contract. CF(L)Co appealed the decision of the trial judge and the appeal court ruled against CF(L)Co.

This Declaratory Judgment action was brought to the court by Hydro Quebec. They were seeking interpretation of their rights to energy and capacity and CF(L)Co’s rights under the Power Contract and the Renewal Contract.

Q3. Having completed the review of the declaratory judgment decision, have any implications for water management been identified?

In terms of the Water Management Agreement and the decision of the Quebec Superior Court, as previously stated, the Declaratory Judgement motion relates specifically to the Power Contract and Renewal Contract, and the Water Management Agreement between CF(L)Co and Muskrat Falls Corporation was not the subject of the action commenced by Hydro-Québec in the Quebec court.
Q4. In light of Nalcor and CF(L)Co's record in the Quebec court system, why are you appealing the Declaratory Judgment decision?

We are appealing this decision, because in our opinion there are significant errors in the decision. The Renewal Contract will be in effect for the next 25 years, it is therefore the right thing to do for CF(L)Co.

Q5. Are you also planning to appeal the Good Faith appeal decision that was received prior to this decision?

We are still assessing the Good Faith decision from the appeal court.

Q6. If it is decided that the Good Faith Case will be appealed, what is the timeline for an appeal?

If we decide to seek leave to appeal the Good Faith appeal decision to the Supreme Court of Canada we have 60 days from August 1 (the date we received the decision) to do so.

Q7. How much has CF(L)Co spent on legal fees associated with the Declaratory Judgement case? What are the expected costs going forward?

To date, legal costs for the Declaratory Judgement case are approximately $9.9 M. We have budgeted approximately $1 million for the legal fees associated with the appeal.

Q8. Who is paying for this appeal?

CF(L)Co will cover the legal costs associated with the decision.

Q9. How long will this action take to work through the courts?

We are anticipating that it could take up to 24 months for the appeal process to come to a conclusion.

Q10. Why was this matter brought before the court in the first place?

The case was brought before the Court by Hydro Quebec, not CF(L)Co, as they wished to prevent CF(L)Co from applying its interpretation on the specific contractual rights.

Q11. Which firm(s) are acting for CF(L)Co in this case?

Because the case is under Quebec Law, CF(L)Co has engaged the legal firms Stikeman Elliott and Irving Mitchell Kalichman, both of which are based in Montreal.

Q12. Given the decision can Hydro Quebec operate CF in such a way that it stops or negatively impacts the Muskrat Falls Plant from operating?

The river will be operated under the Water Management Agreement established by the Public Utilities Board and is unrelated to the Declaratory Judgement case.

Q13. Does the ruling against CF(L)Co in the Declaratory Judgement case require CF(L)Co to operate the plant differently than it had previously done?

With respect to the supply of energy to HQ, the decision of the trial court does not require CF(L)Co to operate the plant differently. Under the decision, HQ's rights with respect to its entitlement to energy
and power do not change from the original Power Contract to the Renewal Contract. In addition, the decision has negatively affected CF(L)Co’s ability to sell interruptible power.

Q14. Will CF(L)Co meet the requirements under the Declaratory Judgement case while it is waiting for the appeal to be heard?
It is CF(L)Co’s intention at this time to abide by the decision of the Quebec Superior Court while the appeal process is ongoing.

Q15. Is Nalcor/CF(L)Co negotiating with Hydro-Quebec regarding Muskrat Falls or other power from our province? If so what are the negotiations about?
Churchill Falls does not wish to comment further on its ongoing business discussions with Hydro-Quebec.

Q16. What are the financial impacts to CF(L)Co under the Renewal Contract that came into effect on September 1/16?
The original 1969 Power Contract between CF(L)Co and Hydro-Quebec expired at the end of August 2016 with a renewal for another 25 years to 2041. Under the terms of the Renewal Contract, the price paid by Hydro-Quebec for energy decreased from approximately one-quarter of one cent per kilowatt hour and the Renewal Contract fixes the purchase price at one-fifth of one cent per kilowatt hour for the 25-year period beginning in September 2016 (about a 20% decrease). The estimated revenue impact to CF from the rate change is approximately $17 million.
Churchill Falls (Labrador) Corporation files appeal with Quebec Court of Appeal on recent decision on the Declaratory Judgement Case

September 7, 2016, St. John’s, NL – Today, Churchill Falls (Labrador) Corporation (CF(L)Co) filed an appeal with the Quebec Court of Appeal on the Declaratory Judgement decision received from the Quebec Superior Court on August 8, 2016.

In July 2013, Hydro-Québec brought the Declaratory Judgement motion to the Quebec Superior Court seeking the Court’s interpretation of the 1969 (CF(L)Co)/Hydro-Québec Power Contract and the associated Renewal Contract. The 1969 Power Contract expired on August 31, 2016 and the Renewal Contract came into effect September 1, 2016 and is in effect for 25 years.

Specifically, Hydro-Québec filed a motion seeking the Court’s interpretation regarding two issues:

1. Whether CF(L)Co can sell power beyond the 300 MW recapture block and 225 MW Twinco block on an interruptible basis to third parties when plant capacity is not being used.
2. “Continuous Energy” under the Renewal Contract and whether this represents a fixed monthly energy entitlement for Hydro-Québec or whether Hydro-Québec’s scheduling rights remain the same under the Renewal Contract as the Power Contract.

A hearing was held in the Quebec Superior Court in the fall of 2015. In the decision issued on August 8, 2016 the Quebec Superior Court ruled against CF(L)Co. Following a comprehensive review of the judgement, CF(L)Co has decided to appeal the decision to the Quebec Court of Appeal. It is CF(L)Co’s intention at this time to abide by the decision of the Superior Court while the appeal process is ongoing.

Media Contact:
Cara Pike
Communications, Nalcor Energy
t.709.737.1446 c.709.685.9290
carapike@nalcorenergy.com
From: Snook, Corey
Sent: Friday, September 16, 2016 9:50 AM
To: Batten, Dean
Cc: Pritchard, Colin; Bown, Charles W.; Parsons, Walter; Ivimey, Philip; Penney, Melissa
Subject: FW: CF(L)Co Trust

Hi Dean,

- In response to your first set of questions, please see the email below from FIN on Monday regarding the CF(L)Co Trust. FIN is now working with CF(L)Co to confirm whether any of the remaining is encumbered.
Please let me know if you have any questions.

-Corey

Corey Snook  
Director of Electricity and Alternative Energy (Acting)  
Department of Natural Resources  
Government of Newfoundland and Labrador  
St. John's, NL, Canada  
A1B 4J6  
corey.snook@gov.nl.ca  
O: 709.729.3131 / M: 709.725.8186

From: Pritchard, Colin  
Sent: Monday, September 12, 2016 4:55 PM  
To: Snook, Corey  
Cc: Ivimey, Phillip; Drover, David J.; Andrews, Peter  
Subject: RE: CF(L)Co Trust  
Importance: High  
S. 29(1)(a), S. 30(1)(a)

Colin Pritchard  
Banking Analyst  
Public Accounts and Banking Services  
Department of Finance  
3rd Floor, East Block, Confederation Building  
P.O. Box 8700  
St. John's NL A1B 4J6  
(t) (709) 729-0641  
(f) (709) 729-2254  
(email) colinpritchard@gov.nl.ca
Hi again Colin,

Can you confirm how much has been drawn down so far this year? We budget $300,000, so I am trying to understand how the [redacted] relates.

I am copying our departmental controller, Phil Ivemy as well in case he has pertinent info to add.

-Corey

Corey Snook
Director of Electricity and Alternative Energy (Acting)
Department of Natural Resources
Government of Newfoundland and Labrador
St. John's, NL, Canada A1B 4J6
coreysnook@gov.nl.ca
O: 709.729.3131 / M: 709.725.8186

---

Hi Corey: The balance in the CF(L)Co Trust account at September 9, 2016 is [redacted]. There is one outstanding invoice to be paid for [redacted] to CF(L)Co as we are still waiting to receive some supporting documentation from CF(L)Co before payment can be made.

If you require anything further on the CF(L)Co Trust, please feel free to contact me. Regards

Colin Pritchard
Banking Analyst
Public Accounts and Banking Services
Department of Finance
3rd Floor, East Block, Confederation Building
P.O. Box 8700
St. John's, NL A1B 4J6
(t) (709) 729-0641
(f) (709) 729-2254
(email) colinpritchard@gov.nl.ca
Hi Minister:

NTV called the Premier’s Office looking for a response to the Opposition’s news release (see below and attached). Here are the messages I am sending Michelle.

Diana

Key messages:

- Our government inherited the Muskrat Falls Project which had significant challenges from the onset – namely it being too big and too costly for our province’s needs. I have always been very vocal about my concerns around those very issues.

- Our government hasn’t had any direct contact with Hydro Quebec regarding the Muskrat Falls Project and we have no intentions to do so. In fact, we have no proposals from anyone for the sale of the project. Our focus right now is to manage the project effectively within budget to completion.

- Furthermore, our government has not approached Hydro Quebec about renegotiating the Upper Churchill Project or about developing Gull Island.

- That being said, we are always open to conversations with the Government of Quebec; they have signaled to us that they would like to have a better relationship. We are certainly open to that.

Office of the Official Opposition
NEWS RELEASE
September 19, 2016
For Immediate Release

No Denials from Ball Liberals About Selling Out Hydro Resources

Paul Davis, Leader of the Official Opposition, said, “Premier Dwight Ball needs to clearly state his administration’s plans for the province’s hydro resources in Labrador, including Muskrat Falls, Gull Island and the Upper Churchill.”

“The Premier is silent, the Natural Resources minister is absent and the Liberals’ new appointee to the helm of Nalcor Energy is raising all sorts of red flags that suggest there may be a grab for our province’s hydro resources,” said Davis.
"The Muskrat Falls project was designed to end Quebec's longstanding stranglehold on our hydro exports by creating a new route through the Maritimes to give our province new leverage after Quebec played hardball for decades, costing us enormous amounts of potential revenue a year," said Davis. "In that light, red flags were raised when the Liberals' new appointee to the helm of Nalcor Energy invited Hydro-Quebec officials to tour the Muskrat Falls site."

"The Premier and his Cabinet ministers refuse to clearly deny that they may put hydro assets up for sale as part of their plan to sell off the province's assets to raise large sums of short-term cash," said Davis

"Hydro-Quebec is also eyeing our hydro assets. A retired executive of Hydro-Quebec, F. Pierre Grigas, has just published a scandalous opinion piece in Montreal's La Presse newspaper, urging our province's government to sell Labrador to Quebec in exchange for 1,000 megawatts of power. Is this the kind of thinking that motivates the Hydro-Quebec officials that the Ball Liberals seem so eager to deal with? What is the Liberals' hidden agenda? If it was an agenda the people of our province would like, would the Liberals be hiding it?" asked Davis.

"The Natural Resources minister is nowhere to be found, and the Premier is doing nothing to dispel the notion that negotiations are in the works to sell or give away our people's hydro resources. The new head of Nalcor is working on building a relationship with Hydro-Quebec who have worked tirelessly for generations to keep us from benefiting fairly from the hydro resources in Labrador," said Davis.

"It's time for the Ball Liberals to give the people of our province clear answers about their intentions for the people's valuable energy resources, on which our future economic security is grounded," said Davis.

- 30 -

Media Contact: Heather MacLean, Director of Communications, Office of the Official Opposition, (709) 729 6105, heathermaclean@gov.nl.ca
No Denials from Ball Liberals About Selling Out Hydro Resources

Paul Davis, Leader of the Official Opposition, said, "Premier Dwight Ball needs to clearly state his administration's plans for the province's hydro resources in Labrador, including Muskrat Falls, Gull Island and the Upper Churchill."

"The Premier is silent, the Natural Resources minister is absent and the Liberals' new appointee to the helm of Nalcor Energy is raising all sorts of red flags that suggest there may be a grab for our province's hydro resources," said Davis.

"The Muskrat Falls project was designed to end Quebec's longstanding stranglehold on our hydro exports by creating a new route through the Maritimes to give our province new leverage after Quebec played hardball for decades, costing us enormous amounts of potential revenue a year," said Davis. "In that light, red flags were raised when the Liberals' new appointee to the helm of Nalcor Energy invited Hydro-Quebec officials to tour the Muskrat Falls site."

"The Premier and his Cabinet ministers refuse to clearly deny that they may put hydro assets up for sale as part of their plan to sell off the province's assets to raise large sums of short-term cash," said Davis.

"Hydro-Quebec is also eyeing our hydro assets. A retired executive of Hydro-Quebec, F. Pierre Grigas, has just published a scandalous opinion piece in Montreal's La Presse newspaper, urging our province's government to sell Labrador to Quebec in exchange for 1,000 megawatts of power. Is this the kind of thinking that motivates the Hydro-Quebec officials that the Ball Liberals seem so eager to deal with? What is the Liberals' hidden agenda? If it was an agenda the people of our province would like, would the Liberals be hiding it?" asked Davis.

"The Natural Resources minister is nowhere to be found, and the Premier is doing nothing to dispel the notion that negotiations are in the works to sell or give away our people's hydro resources. The new head of Nalcor is working on building a relationship with Hydro-Quebec who have worked tirelessly for generations to keep us from benefiting fairly from the hydro resources in Labrador," said Davis.
"It's time for the Ball Liberals to give the people of our province clear answers about their intentions for the people's valuable energy resources, on which our future economic security is grounded," said Davis.

- 30 -

Media Contact: Heather MacLean, Director of Communications, Office of the Official Opposition, (709) 729 6105, heathermaclean@gov.nl.ca
Do you mean the KMs that I have put together? There have been a few people now to weigh in on this debate: Mr. Gingras, the Official Opposition, media, and a blogger. The messages are intended to step back from the public discourse and explain government's point of view – that the protection of our resources and people come first, we are not discussing the sale of our hydro resources with Quebec, and that we are working hard to get the Muskrat Falls Project on track. The rest is secondary. Did you want me to reorganize into primary and secondary messages?

Thanks Diana. Wondering what the focus is here? If it is the article we should say Mr Gingras is entitled to his opinion however his suggestions are ridiculous and without merit.

Or is the request a response to Paul Davis' comments?

Or on Quebec?

Sent from my BlackBerry

In addition to this, here is Nalcor's response to questions about their discussions with NL Hydro.
Nalcor is focused on the effective execution of the Muskrat Falls project. We are in not in talks with Hydro Quebec to develop Gull Island. However, as previously stated, we will continue to explore opportunities with multiple potential customers, including Hydro Quebec, to enhance the value of energy that is surplus to Newfoundland and Labrador's needs. Also, as long standing business partners in the Churchill Falls plant, Nalcor and Hydro Quebec have ongoing conversations and negotiations regarding that plant. Our guiding principle is always to do what is in the best interest of the people of the Province and we will ensure the public is aware of any significant developments.

From: Quinton, Diana
Sent: Tuesday, September 20, 2016 11:14 AM
To: Coady, Siobhan; Brown, Charles W.
Cc: Parsons, Walter; Sheppard, Megan; Clarke, Lesley
Subject: REVISED: KMs for review - Hydro resources in Labrador

Here are revised KMs which I plan to send to PO now.

Natural Resources
Hydro resources in Labrador
September 20, 2016

Summary:

On September 17, La Presse published an opinion piece by F. Pierre Gingras with the headline: Pourquoi Le Québec Devrait Reprendre Le Labrador. In essence, Gingras is arguing that Labrador was taken away from Quebec in 1927; our province cannot handle the development of the Muskrat Falls Project; and now it should be turned over to Quebec in return for enough power to satisfy residential needs. The article was discussed in local media and by the Official Opposition which has now sent our two news releases asking government and Nalcor to state plans for the province’s hydro resources in Labrador. The Premier will be asked to comment.

Key messages:

- Our hydro resources belong to the people of Newfoundland and Labrador. We will protect our resources and we will protect the people of this province.

- There is no doubt that we are dealing with an unwieldy Muskrat Falls Project. We cannot dispel history. We inherited the project which the former administration mismanaged – the project was too big and too costly for our province’s needs. I have always been very vocal about my concerns around those very issues.

- We will continue to do what is possible to get this project on track.

- The Provincial Government, with Nalcor, has approached the Federal Government regarding an enhanced federal loan guarantee for the Muskrat Falls Project. Our discussions are ongoing for a number of months and we look forward to providing full details when we conclude our discussions.

- We are always open to conversations with the Government of Quebec about matters of interest to both provinces as we currently do at intergovernmental forums; they have signaled to us that they would like to have a better relationship. We are certainly open to that.
• However, there are no discussions between this government and the Quebec government about the sale of our Hydro resources – the Muskrat Falls Project, Gull Island or the Upper Churchill Project.

• In fact, we have no proposals from anyone for the sale of the Muskrat Falls Project. Our focus right now is to manage the project effectively within budget to completion.

• I find it disturbing when the leader of the Official Opposition says that, “The Muskrat Falls project was designed to end Quebec's longstanding stranglehold on our hydro exports”, when for years they have been arguing that the project was developed first and foremost to meet the power requirements of the province. They are choosing to play a political game on the backs of the people of this province. We will not play that game.

• We will only do what is in the best interest of this province.

• We will ensure continued investment and focus on the economy. Unlike the previous government, we will drive success for the province in the future.

What do you think about the La Presse article from this past weekend?
The opinion piece in La Presse this past weekend is just that – an opinion. To suggest rhetorically that Labrador or our hydro resources should be up for the taking is outrageous.

Note: Pages 29-32 have been redacted in full under sections 34(1)(e)(i); section 29(1)(a)(i) also applies to portions of content on these pages.
Marshall, Andrea

From: Parsons, Walter
Sent: Thursday, September 29, 2016 9:18 AM
To: Quinton, Diana
Subject: RE: KMs for Review - Time Sensitive

No major concerns. I highlighted a couple of minor grammar issues.

From: Quinton, Diana
Sent: Thursday, September 29, 2016 9:07 AM
To: Coady, Siobhan <SiobhanCoady@gov.nl.ca>; Bown, Charles W. <cbown@gov.nl.ca>
Cc: Parsons, Walter <WalterParsons@gov.nl.ca>; Sheppard, Megan <MeganSheppard@gov.nl.ca>; Clarke, Lesley <LesleyClarke@gov.nl.ca>
Subject: KMs for Review - Time Sensitive
Importance: High

I have been asked to prepare messages on the Good Faith case as of today. Please review ASAP. Due at the Branch by 9:30 am. Thanks!

Diana Quinton
Director of Communications
Natural Resources
Government of Newfoundland and Labrador
709-729-5282

Natural Resources
CF(L)Co Appeal – Good Faith Case
September 29, 2016

Summary:

- On September 28, 2010, Churchill Falls Labrador Corporation (CFLCo) commenced a legal action against Hydro-Quebec in the Supreme Court of Quebec in relation to the power contract for Churchill Falls.
- The litigation was based on the position that HQ has a good faith obligation under Quebec law to renegotiate the price paid for power under the power contract.
- The litigation was subject to government committing to pay all external costs and expenses incurred by CFLCo for any negotiations and legal proceedings.
- Government established a trust to fund the required legal fees and court costs to provide the funding commitment required.
- To date (which would include the development of the action since the late 1990’s), the Province has about $7 million has been allocated for this case. Government allocated $300,000 in the budget for legal requirements in 2016/17.
- The QC Superior Court handed down its judgment on July 24, 2014 and dismissed CFLCo’s motion. An appeal was filed on August 26, 2014 in the Quebec Court of Appeal; arguments were heard on Monday, April 25, 2016, and this verdict was put forward.(confusing)
- On, August 1, 2016, the decision was handed down in favour of HQ, unanimously.
Key messages:

- We were deeply disappointed with the decision on the appeal of the court case in relation to the power contract for Churchill Falls which ruled in favour of Hydro Quebec on August 1.

- The Government of Newfoundland and Labrador has supported Churchill Falls Labrador Corporation (CFLCo) throughout this process.

- This case has the potential to benefit all Newfoundlanders and Labradorians and we intend to see this through to the end.
Marshall, Andrea

From: Bown, Charles W.
Sent: Thursday, September 29, 2016 2:37 PM
To: Sullivan, Lynn; Parsons, Walter
Subject: FW: AIT Energy Memo
Attachments: AIT Energy Memo.docx

---

From: English, Tracy
Sent: Tuesday, September 06, 2016 1:37 PM
To: Bown, Charles W.
Subject: AIT Energy Memo

As discussed. Meaghan has provided comments which have been incorporated into the document. Call me if you have any questions.

Tracy
Marshall, Andrea

From: Quinton, Diana
Sent: Thursday, September 29, 2016 5:03 PM
To: Coady, Siobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan
Subject: Good Faith Case - Comms Materials
Attachments: Backgrounder - CF Good Faith Case - September 2016 - FINAL.DOCX; Media Statement - CF Good Faith Case - Supreme Court of Canada Appeal - ....docx; QA's - CF Good Faith Case - Supreme Court of Canada - Appeal - September....docx

Here are final communications materials from Nalcor on the Good Faith case.

I'll update government's messages on this and provide in the morning.

From: Quinton, Diana
Sent: Wednesday, September 28, 2016 3:21 PM
To: Coady, Siobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan
Subject: Media Statement and Backgrounder: Good Faith Case

Here are draft materials from Nalcor (media statement and backgrounder) for the Good Faith Case. Please note that the backgrounder is for information purposes only and is not being released as part of the media statement. Release date is Friday.

From: Quinton, Diana
Sent: Monday, September 26, 2016 12:05 PM
To: Coady, Siobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan
Subject: CF Good Faith Case

Nalcor has informed me that they are filing an appeal this Friday, September 30 in response to the CF(L)Co Good Faith Case decision made by the Quebec Court of Appeal. They are planning to issue a statement to the media once the appeal is filed. They are working on the statement as well as Q&As and they will send along this information within the next day or so.
Backgrounder
Churchill Falls (Labrador) Corporation (CF(L)Co) Application for Leave to Appeal to The Supreme Court of Canada on Case for Adjustment of Pricing Terms of the Power Contract and Associated Renewal Contract with Hydro-Québec

On November 30, 2009, CF(L)Co formally requested that Hydro-Québec renegotiate a fair and equitable purchase price for the remaining term of the 1969 Power Contract and the Renewal (Contract) effective until 2041. Under the Contract energy generated from the Churchill Falls Generating Station in Labrador is sold to Hydro-Québec. The original contract, signed in 1969, expired in August 2016 with a Renewal Contract coming into effect at that time for another 25 years to 2041. The price of the energy under the terms of the Renewal Contract is $2 per MWh.

Hydro-Québec did not respond to CF(L)Co’s request. As a result, on February 23, 2010, CF(L)Co filed a motion with the Quebec Superior Court requesting the court amend the pricing terms of the Contract effective November 2009 to permit a more equitable sharing of the value of the power from Churchill Falls. The nature of the relationship between CF(L)Co and Hydro-Québec and the extremely long duration of the Contract are key considerations in this case.

Since the signing of the Contract in 1969, circumstances have changed in a way that could not have been reasonably foreseen at the time of signing:

- Electricity markets have changed fundamentally and energy has acquired a commercial value that neither of the parties could have reasonably anticipated when they entered into the Contract. At the time the Contract was negotiated, CF(L)Co had no access to export markets because the government of Quebec refused permission to transmit energy across Quebec territory. As a result Hydro-Québec was the only possible purchaser of the energy.
- Since 1996, competitive wholesale electricity markets have developed in the United States and transmission open access rules require that companies, such as Hydro-Québec and their affiliates, who sell energy in the U.S. competitive wholesale electricity markets must give open, non-discriminatory access to their own transmission networks.

These changes in circumstances and the extraordinary length of the Contract have resulted in a gross inequity in the distribution of contractual benefits flowing to Hydro-Québec. Given this unique situation, and the nature of the relationship between CF(L)Co and Hydro Quebec combined with the obligation under the Quebec Civil Code to act in good faith throughout the term of a contract, CF(L)Co believes that Hydro-Québec is obliged to reopen the Contract to re-establish an appropriate balance of benefits.

When the Contract was signed in 1969, the price to be paid by Hydro-Québec represented approximately one-third of the average price Hydro-Québec charged its customers. This is no longer the case. This action seeks a fair and equitable return to CF(L)Co from its sale of power and energy based on prices received by Hydro-Québec today in the Quebec market and in export markets proportionate to Hydro-Québec’s volume of sales in these respective markets.
Case Timeline:

- In 2010, CF(L)Co launched the Good Faith Case in the Quebec Superior Court requesting that the pricing terms of the 1969 Power Contract between CF(L)Co and Hydro-Quebec and its Renewal be amended for the remainder of the Contract to address the disparities in the Contract pricing.
- In the fall of 2013, the hearing for the Good Faith Case was held before the Quebec Superior Court in Montreal.
- In July 2014, the Quebec Superior Court ruled against CF(L)Co on the Good Faith Case.
- In August 2014, CF(L)Co filed for an appeal of the Quebec Superior Court Good Faith decision with the Quebec Court of Appeal.
- In April 2016, the Good Faith Case appeal hearing was heard in the Quebec Court of Appeal.
- August 1, 2016 the Quebec Court of Appeal issued its decision, ruling against CF(L)Co.
- On September 30, 2016, CF(L)Co filed an application for leave to appeal to the Supreme Court of Canada.
Churchill Falls (Labrador) Corporation files appeal application with the Supreme Court of Canada on the Good Faith case

September 30, 2016, St. John’s, NL – Today, Churchill Falls (Labrador) Corporation (CF(L)Co) filed an application for leave to appeal with the Supreme Court of Canada on the decision it received from the Quebec Court of Appeal on August 1, 2016, regarding the disparities of the 1969 Power Contract and the associated Renewal Contract between CF(L)Co and Hydro-Québec (referred to as the Good Faith case).

In 2010, CF(L)Co filed a motion with the Quebec Superior Court requesting an amendment to the pricing terms of the Power Contract and the Renewal Contract to permit a more equitable sharing of the value of the power from Churchill Falls. The Court ruled against CF(L)Co and in August 2014, CF(L)Co filed an appeal of the Quebec Superior Court’s decision with the Quebec Court of Appeal. On August 1, 2016, the Quebec Court of Appeal issued its decision, ruling against CF(L)Co.

Following a comprehensive review of this judgement and advice from its legal counsel, CF(L)Co has decided there are serious grounds to seek leave to appeal the decision to the Supreme Court of Canada.

Under the Power and Renewal Contracts energy generated from the Churchill Falls Generating Station in Labrador is sold to Hydro-Québec. The 1969 Power Contract expired on August 31, 2016 and the Renewal Contract came into effect September 1, 2016 and is in effect for 25 years.

-30-

Media Contact:
Cara Pike, Senior Communications Advisor
t: 709.737.1446  I  c: 709.685.9290  I  e: carapike@nalcorenergy.com
QUESTIONS ANSWERS:
Supreme Court of Canada Appeal
CF(L)Co Good Faith Case

1. Can you provide a brief overview the Good Faith Case?
   In 2010, CF(L)Co filed a motion in the Quebec Superior Court asking the court to declare that Hydro Quebec has a duty to renegotiate the 1969 Power Contract and Renewal Contract between CF(L)Co and Hydro Quebec, and given Hydro-Quebec's refusal to renegotiate, CF(L)Co has requested that the pricing terms of the Contract be amended to address the inequities in the contract.

2. Why did CF(L)Co pursue the Good Faith Case?
   Since the signing of the 1969 Power Contract, circumstances have changed in a way that could not have been reasonably foreseen at the time of signing. Specifically, energy now has a commercial value that neither of the parties could have anticipated, and at the time the Contract was negotiated CF(L)Co had no access to export markets because the government of Quebec refused permission to transmit energy across Quebec territory. These changes combined with the extraordinary length of the Power and Renewal Contracts have resulted in a gross disparity between the benefits each party derives from these Contracts, with the increased commercial value flowing almost exclusively to Hydro-Quebec. Under the Civil Code of Quebec, we believe Hydro Quebec has a good faith obligation to renegotiate in these circumstances, given the nature of the relationship between CF(L)Co and Hydro Quebec and the length of the contract.

3. What did CF(L)Co expect to gain from the Good Faith Case?
   Given Hydro-Quebec's refusal to renegotiate, CF(L)Co is asking the court to make an amendment to the pricing terms of the 1969 Power Contract and Renewal Contract to address the disparity and ensure a fair and equitable return for CF(L)Co that is in line with what the parties intended.

4. What are the implications of the disparity in the 1969 Power Contract?
   Due to the price disparity of the 1969 Power Contract, there is a gross inequity in the amount of money flowing to Hydro Quebec versus to CF(L)Co.

   If pushed:
   In 2015, it is estimated that a total of $26.5 billion in revenue was realized by Hydro Quebec, versus $2 billion for CF(L)Co.

5. How much has been spent to date on the Good Faith Case?
   Approximately, $5.7 million in legal fees has been spent to date on the Good Faith case.

6. How much is it going to cost to continue to fund the case as it goes through the appeal process?
   We are anticipating that it will cost in the range of $250,000 to $800,000 to continue to fund the case. If the appeal to the Supreme Court of Canada is approved the costs will be on the higher end of this range.

7. Who is funding the Good Faith Case – is this something that CF(L)Co/Nalcor is paying for?
   The Government of Newfoundland and Labrador is funding the legal costs associated with the Good Faith Case and they will continue to fund the case as CF(L)Co moves through the appeal process with the Supreme Court of Canada.
8. Why is Government funding the Good Faith Case — why are the taxpayers of Newfoundland and Labrador paying for CF(L)Co’s legal battles? 
   The taxpayers of this Province are the ultimate Shareholders of Newfoundland and Labrador Hydro, which owns 65.8% of the shares of CF(L)Co., and therefore will benefit from a favourable outcome of the Good Faith Case. This is a potentially ground breaking case for Newfoundland and Labrador and the potential long term financial outcome is very important to this province.

9. If Government is funding the Good Faith Case, why isn’t Government in the courts with Hydro Quebec? 
   This is a legal action between CF(L)Co and Hydro Quebec, the parties to the Power and Renewal contracts. It is not a legal action by the Government of Newfoundland and Labrador.

10. In light of the fiscal and economic position of the province, should CF(L)Co and the Government walk away from the Good Faith Case? 
    This is a potentially a ground breaking case for Newfoundland and Labrador and the potential long term financial outcome is very important to this province. With this being said, we carefully considered the legal costs associated with continuing the Good Faith Case as part of our decision to move forward with the appeal. The majority of the costs have already been incurred, the potential long term benefits far outweigh the estimated remaining legal expenses associated with the case.

11. The basis of the Good Faith Case is to amend the pricing in 1969 Power Contract — isn’t a contract a contract, and if this is the case why would CF(L)Co try to change the terms of the contract? 
    Nalcor Energy and all of its subsidiary companies, including CF(L)Co, are in the practice of honouring contractual obligations and this will not change. However, the legal advice we have received indicates that in the unique circumstances of this case — given the collaborative nature of the relationship between CF(L)Co and Hydro-Quebec with respect to the Churchill Falls project, the extremely long duration of the contracts and the unforeseen nature of the market changes — under the good faith provisions of the civil law in Quebec there is an obligation for Hydro-Quebec to renegotiate the pricing terms of the Power Contract and Renewal contract. S. 29(1)(a), S. 34(1)(a)(i)

12. 

13. Does the Good Faith Case have anything to do with the Declaratory Judgement Case? What is the difference between the two cases? 
    The Good Faith Case is a separate, unrelated legal action and is not connected with the Declaratory Judgement Case. 

    Further explanation: 
    The Good Faith case was brought to the Court by CF(L)Co to request a change in pricing terms for the sale of power to Hydro Quebec. CF(L)Co brought this motion forward to address the significant inequities in benefits realized by Hydro Quebec vs CF(L)Co under the Power Contract and Renewal Contract.

Prepared: September 27, 2016
The Declaratory Judgment action was brought to the court by Hydro Quebec. They were seeking interpretation of their rights to energy and capacity and CF(L)Co’s rights under the Power Contract and the Renewal Contract.

14. **Does the Good Faith ruling have any impact on the Lower Churchill Project?**
   No the Good Faith Case does not have any impact on the Lower Churchill Project.

15. **Now that CF(L)Co has filed its application for leave to appeal to the Supreme Court of Canada, what are the next steps and how long and how much will this cost?**
   A decision with respect to an Application for Leave is usually issued within 3-6 months after the Application is complete. If the Leave to Appeal is granted, the Appeal hearing is usually held approximately 6-12 months after Leave is granted. It is expected that a decision on the Appeal would be issued by the Supreme Court of Canada within 12 months after the Appeal hearing.

16. **If CF(L)Co’s appeal to the Supreme Court of Canada is unsuccessful, what are the next steps for CF(L)Co with respect to trying to change the payment terms of the Power Contract?**
   Our focus has been on pursuing the Good Faith action and no consideration has been given as to what, if anything, we will pursue if we are unsuccessful.

17. **Are there any other ongoing legal cases between CF(L)Co and Hydro Quebec?**
   Yes, in 2013 Hydro-Quebec filed a Declaratory Judgment action against CF(L)Co. The decision against CF(L)Co was received in August 2016 and is now under appeal.

18. **There have been recent stories in the news that Hydro Quebec have been “snifffing around” Muskrat Falls, is there any truth to the potential of Hydro Quebec “bailing” the project out?**
   Nalcor is focused on the effective execution of the Muskrat Falls project. As previously stated, we will continue to explore opportunities with multiple potential customers, including Hydro Quebec, to enhance the value of energy that is surplus to Newfoundland and Labrador’s needs. Also, as long standing business partners in the Churchill Falls plant, Nalcor and Hydro Quebec have ongoing conversations and negotiations regarding that plant. Our guiding principle is always to do what is in the best interest of the people of the Province and we will ensure the public is aware of any significant developments.
Meaghan,

I made a slight wording change to the third paragraph (added "after which HQ could be entitled") and wanted to make sure the letter remains accurate. Can you please confirm? (BTW this can wait til next week; I know it’s Friday afternoon).

Walter

--------< HP TRIM Record Information >--------

Record Number: OCOR-23997
Title: Response by Minister Coady to email to the Premier from [redacted] regarding disconnecting power lines feeding Hydro Quebec and Court Challenges over Churchill Falls
Dear [Redacted]

RE: Disconnecting Power Lines Feeding Quebec

Thank you for your recent email to Premier Ball in which you expressed concerns regarding the court challenges of the terms of the 1969 Power Contract with Hydro-Québec and for your suggestion to disconnect the power feeding Quebec. As Minister of Natural Resources, I am pleased to respond on behalf of the Premier.

Churchill Falls (Labrador) Corporation Limited (CFLCo) is owned by Newfoundland and Labrador Hydro (65.8%) and Hydro-Québec (34.2%), and is responsible for meeting the terms of the company’s 1969 Power Contract with Hydro-Québec. Since its inception, the Power Contract has seen this province forego many billions of dollars in revenue. Hydro-Québec earns about $1 billion per year while Nalcor earns about $20 million per year from the sale of electricity from Churchill Falls. The renewal contract automatically came into effect on September 1, 2016 and will not expire until 2041. The original contract price at the end of August 2016 was 0.25426 cents per kWh and reduced to 0.2 cents per kWh under the renewal contract.

In response to your suggestion to disconnect the power lines feeding Hydro-Québec, CFLCo has an obligation under the terms of the power contract to maintain operation of the Churchill Falls hydroelectric plant and the associated transmission lines to Quebec. If CFLCo were to refuse to operate the plant or disconnect the transmission lines to Quebec, then Hydro-Québec would have the right to take over its operation for the account of CFLCo until such time as CFLCo itself resumes operation of the plant, after which Hydro-Québec could be entitled to withhold future payments to CFLCo under the Power Contract. Further, shutting down the plant would expose CFLCo to substantial financial risk through a court proceeding which would, undoubtedly, be commenced by Hydro-Québec for failure to meet the terms of the 1969 Power Contract.

Churchill Falls is an asset of great value for our province, and it is clearly in our interest to keep the facility fully operational and in a state of readiness for the long-term. Once the contract concludes in 2041, the people of this province will be in a position to benefit fully from this world class facility.

I hope this response addresses your concerns. I thank you for taking the time to contact our government on this matter.
Sincerely,

SIOBHAN COADY, MHA
St. John's West
Minister

c. Honourable Dwight Ball, Premier
Sent from my BlackBerry 10 smartphone on the Bell network.

From: Quinton, Diana <DianaQuinton@gov.nl.ca>
Sent: Monday, October 3, 2016 9:39 AM
To: Coady, Slobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan
Subject: Timing of Good Faith Case Statement

Just a reminder that Nalcor is sending out its Good Faith Case statement shortly to media. Please let me know if you are okay with the messages below.

From: Quinton, Diana
Sent: Friday, September 30, 2016 3:58 PM
To: Coady, Slobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan
Subject: Timing of Good Faith Case Statement

Nalcor is waiting until Monday now to send out their statement on the good faith case.

From: Quinton, Diana
Sent: Friday, September 30, 2016 12:35 PM
To: Coady, Slobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan
Subject: DRAFT MESSAGES FOR APPROVAL: Good Faith Case

Here are draft messages on seeking leave to appeal the decision with Supreme Court of Canada regarding the Good Faith Case. Nalcor is expecting to send out their statement mid-afternoon.

Natural Resources
CF(L)Co Appeal – Good Faith Case
September 30, 2016

Summary:

- In 2010, CF(L)Co filed a motion with the Quebec Superior Court requesting an amendment to the pricing terms of the Power Contract and the Renewal Contract to permit a more equitable sharing of the value of the power from Churchill Falls.
- The Court ruled against CF(L)Co and in August 2014, CF(L)Co filed an appeal of the Quebec Superior Court’s decision with the Quebec Court of Appeal.
- On August 1, 2016, the Quebec Court of Appeal issued its decision, ruling against CF(L)Co.
- Following a comprehensive review of this judgment and advice from its legal counsel, CF(L)Co has decided there are serious grounds to seek leave to appeal the decision with the Supreme Court of Canada.
• Under the Power and Renewal Contracts energy generated from the Churchill Falls Generating Station in Labrador is sold to Hydro-Québec. The 1969 Power Contract expired on August 31, 2016 and the Renewal Contract came into effect September 1, 2016 and is in effect for 25 years.

Key messages:

• We were deeply disappointed with the decision on the appeal of the court case in relation to the power contract for Churchill Falls (referred to as the Good Faith case) which ruled in favour of Hydro Quebec on August 1.

• We support Churchill Falls Labrador Corporation (CFLCo) in seeking leave to appeal the decision with the Supreme Court of Canada.

• This case has the potential to benefit all Newfoundlanders and Labradorians and we intend to see this through to the end.

From: Quinton, Diana
Sent: Thursday, September 29, 2016 5:03 PM
To: Coady, Siobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan
Subject: Good Faith Case - Comms Materials

Here are final communications materials from Nalcor on the Good Faith case.

I’ll update government’s messages on this and provide in the morning.

From: Quinton, Diana
Sent: Wednesday, September 28, 2016 3:21 PM
To: Coady, Siobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan
Subject: Media Statement and Backgrounder: Good Faith Case

Here are draft materials from Nalcor (media statement and backgrounder) for the Good Faith Case. Please note that the backgrounder is for information purposes only and is not being released as part of the media statement. Release date is Friday.

From: Quinton, Diana
Sent: Monday, September 26, 2016 12:05 PM
To: Coady, Siobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan
Subject: CF Good Faith Case

Nalcor has informed me that they are filing an appeal this Friday, September 30 in response to the CF(L)Co Good Faith Case decision made by the Quebec Court of Appeal. They are planning to issue a statement to the media once the appeal is filed. They are working on the statement as well as Q&As and they will send along this information within the next day or so.
VOCM has asked Nalcor how much the Good Faith Case has cost and what they are anticipating to spend on the appeal. They are going to send the following answer:

Approximately, $5.7 million in legal fees has been spent to date on the Good Faith case. We are anticipating that it will cost in the range of $250,000 to $800,000 to continue to fund the case. If the appeal to the Supreme Court of Canada is approved the costs will be on the higher end of this range.

Just a reminder that Nalcor is sending out its Good Faith Case statement shortly to media. Please let me know if you are okay with the messages below.

Nalcor is waiting until Monday now to send out their statement on the good faith case.

Here are draft messages on seeking leave to appeal the decision with Supreme Court of Canada regarding the Good Faith Case. Nalcor is expecting to send out their statement mid-afternoon.

**Summary:**
- In 2010, CF(L)Co filed a motion with the Quebec Superior Court requesting an amendment to the pricing terms of the Power Contract and the Renewal Contract to permit a more equitable sharing of the value of the power from Churchill Falls.
- The Court ruled against CF(L)Co and in August 2014, CF(L)Co filed an appeal of the Quebec Superior Court's decision with the Quebec Court of Appeal.
- On August 1, 2016, the Quebec Court of Appeal issued its decision, ruling against CF(L)Co.
Following a comprehensive review of this judgment and advice from its legal counsel, CF(L)Co has decided there are serious grounds to seek leave to appeal the decision with the Supreme Court of Canada.

Under the Power and Renewal Contracts energy generated from the Churchill Falls Generating Station in Labrador is sold to Hydro-Québec. The 1969 Power Contract expired on August 31, 2016 and the Renewal Contract came into effect September 1, 2016 and is in effect for 25 years.

Key messages:

- We were deeply disappointed with the decision on the appeal of the court case in relation to the power contract for Churchill Falls (referred to as the Good Faith case) which ruled in favour of Hydro Quebec on August 1.

- We support Churchill Falls Labrador Corporation (CFLCo) in seeking leave to appeal the decision with the Supreme Court of Canada.

- This case has the potential to benefit all Newfoundlanders and Labradorians and we intend to see this through to the end.

---

From: Quinton, Diana  
Sent: Thursday, September 29, 2016 5:03 PM  
To: Coady, Slobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan  
Subject: Good Faith Case - Comms Materials

Here are final communications materials from Nalcor on the Good Faith case.

I’ll update government’s messages on this and provide in the morning.

---

From: Quinton, Diana  
Sent: Wednesday, September 28, 2016 3:21 PM  
To: Coady, Slobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan  
Subject: Media Statement and Backgrounder: Good Faith Case

Here are draft materials from Nalcor (media statement and backgrounder) for the Good Faith Case. Please note that the backgrounder is for information purposes only and is not being released as part of the media statement. Release date is Friday.

---

From: Quinton, Diana  
Sent: Monday, September 26, 2016 12:05 PM  
To: Coady, Slobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan  
Subject: CF Good Faith Case

Nalcor has informed me that they are filing an appeal this Friday, September 30 in response to the CF(L)Co Good Faith Case decision made by the Quebec Court of Appeal. They are planning to issue a statement to the media once the appeal is filed. They are working on the statement as well as Q&As and they will send along this information within the next day or so.

Note: Pages 5-18 have been redacted in full under sections 27(1)(h) and 27(2)(a).
Thank you.

-----Original Message-----
From: McConnell, Meaghan
Sent: Monday, October 3, 2016 11:46 AM
To: Parsons, Walter <WalterParsons@gov.nl.ca>
Subject: RE: HP TRIM CORRESPONDENCE-OUTGOING : OCOR-23997 : Response by Minister Coady to email to the Premier from [REDACTED] regarding disconnecting power lines feeding Hydro Quebec and Court Challenges over Churchill Falls

Walter,

This looks good. Although not essential, if the decision has been made to appeal the latest QC court decision, this could be added in.

Thanks,

Meaghan

-----Original Message-----
From: Parsons, Walter
Sent: Friday, September 30, 2016 5:07 PM
To: McConnell, Meaghan
Subject: HP TRIM CORRESPONDENCE-OUTGOING : OCOR-23997 : Response by Minister Coady to email to the Premier from [REDACTED] regarding disconnecting power lines feeding Hydro Quebec and Court Challenges over Churchill Falls

Meaghan,

I made a slight wording change to the third paragraph (added "after which HQ could be entitled") and wanted to make sure the letter remains accurate. Can you please confirm? (BTW this can wait til next week; I know it's Friday afternoon).

Walter

-----< HP TRIM Record Information >-----
Record Number: OCOR-23997
Title: Response by Minister Coady to email to the Premier from [REDACTED] regarding disconnecting power lines feeding Hydro Quebec and Court Challenges over Churchill Falls
Marshall, Andrea

From: Parsons, Walter
Sent: Monday, October 03, 2016 11:48 AM
To: Carroll, Diane
Cc: Snook, Corey
Subject: FW: OCOR-23997: Response by Minister Coady to email to the Premier from [redacted] regarding disconnecting power lines feeding Hydro Quebec and Court Challenges over Churchill Falls
Attachments: Response by Minister Coady to email to the Premier from [redacted] disconnecting power lines feeding Hydro Quebec and Court Challenges over Churchill Falls.docx; Response by Minister Coady to email to the Premier from [redacted] disconnecting power lines feeding Hydro Quebec and Court Challenges over Churchill Falls.txt

Approved, please action to Charles.

-----Original Message-----
From: Snook, Corey
Sent: Friday, September 30, 2016 4:30 PM
To: Parsons, Walter <WalterParsons@gov.nl.ca>
Cc: Bown, Charles W. <cbown@gov.nl.ca>
Subject: OCOR-23997: Response by Minister Coady to email to the Premier from [redacted] regarding disconnecting power lines feeding Hydro Quebec and Court Challenges over Churchill Falls

Walter,

Please see this draft correspondence. CFLCo and JPS signed off. I changed the price to cent/kwh rather than $/MWH.

-Corey

-----< HP TRIM Record Information >-----

Record Number: OCOR-23997
Title: Response by Minister Coady to email to the Premier from [redacted] regarding disconnecting power lines feeding Hydro Quebec and Court Challenges over Churchill Falls
I'm ok

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Quinton, Diana
Sent: Monday, October 3, 2016 2:56 PM
To: Coady, Stobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan
Subject: APPROVAL REQUIRED: Good Faith Case Messaging

Hi:

PO needs these messages ASAP. Everyone okay with them?

Thanks,
Diana

Natural Resources
CF(L)Co Appeal – Good Faith Case
September 30, 2016

Summary:

- In 2010, CF(L)Co filed a motion with the Quebec Superior Court requesting an amendment to the pricing terms of the Power Contract and the Renewal Contract to permit a more equitable sharing of the value of the power from Churchill Falls.
- The Court ruled against CF(L)Co and in August 2014, CF(L)Co filed an appeal of the Quebec Superior Court’s decision with the Quebec Court of Appeal.
- On August 1, 2016, the Quebec Court of Appeal issued its decision, ruling against CF(L)Co.
- Following a comprehensive review of this judgment and advice from its legal counsel, CF(L)Co has decided there are serious grounds to seek leave to appeal the decision with the Supreme Court of Canada.
- Under the Power and Renewal Contracts energy generated from the Churchill Falls Generating Station in Labrador is sold to Hydro-Québec. The 1989 Power Contract expired on August 31, 2016 and the Renewal Contract came into effect September 1, 2016 and is in effect for 25 years.

Key messages:

- We were deeply disappointed with the decision on the appeal of the court case in relation to the power contract for Churchill Falls (referred to as the Good Faith case) which ruled in favour of Hydro Quebec on August 1.
• We support Churchill Falls Labrador Corporation (CFLCo) in seeking leave to appeal the decision with the Supreme Court of Canada.

• This case has the potential to benefit all Newfoundlanders and Labradors and we intend to see this through to the end.
No concerns.

From: Quinton, Diana
Sent: Monday, October 3, 2016 2:56 PM
To: Coady, Siobhan <SiobhanCoady@gov.nl.ca>; Bown, Charles W. <cbown@gov.nl.ca>; Parsons, Walter <WalterParsons@gov.nl.ca>; Clarke, Lesley <LesleyClarke@gov.nl.ca>; Sheppard, Megan <MeganSheppard@gov.nl.ca>
Subject: APPROVAL REQUIRED: Good Faith Case Messaging
Importance: High

Hi:

PO needs these messages ASAP. Everyone okay with them?

Thanks,
Diana

Natural Resources
CF(L)Co Appeal – Good Faith Case
September 30, 2016

Summary:

- In 2010, CF(L)Co filed a motion with the Quebec Superior Court requesting an amendment to the pricing terms of the Power Contract and the Renewal Contract to permit a more equitable sharing of the value of the power from Churchill Falls.
- The Court ruled against CF(L)Co and in August 2014, CF(L)Co filed an appeal of the Quebec Superior Court’s decision with the Quebec Court of Appeal.
- On August 1, 2016, the Quebec Court of Appeal issued its decision, ruling against CF(L)Co.
- Following a comprehensive review of this judgment and advice from its legal counsel, CF(L)Co has decided there are serious grounds to seek leave to appeal the decision with the Supreme Court of Canada.
- Under the Power and Renewal Contracts energy generated from the Churchill Falls Generating Station in Labrador is sold to Hydro-Québec. The 1969 Power Contract expired on August 31, 2016 and the Renewal Contract came into effect September 1, 2016 and is in effect for 25 years.

Key messages:

- We were deeply disappointed with the decision on the appeal of the court case in relation to the power contract for Churchill Falls (referred to as the Good Faith case) which ruled in favour of Hydro Quebec on August 1.
- We support Churchill Falls Labrador Corporation (CFLCo) in seeking leave to appeal the decision with the Supreme Court of Canada.

- This case has the potential to benefit all Newfoundlanders and Labradorians and we intend to see this through to the end.
Yes - thou please remove 'deeply' disappointed. Thanks

Sent from my BlackBerry

Dear Andrea,

From: Quinton, Diana
Sent: Monday, October 3, 2016 2:56 PM
To: Coady, Siobhan; Bown, Charles W.; Parsons, Walter; Clarke, Lesley; Sheppard, Megan
Subject: APPROVAL REQUIRED: Good Faith Case Messaging

Hi:

PO needs these messages ASAP. Everyone okay with them?

Thanks,
Diana

Natural Resources
CF(L)Co Appeal – Good Faith Case
September 30, 2016

Summary:

- In 2010, CF(L)Co filed a motion with the Quebec Superior Court requesting an amendment to the pricing terms of the Power Contract and the Renewal Contract to permit a more equitable sharing of the value of the power from Churchill Falls.
- The Court ruled against CF(L)Co and in August 2014, CF(L)Co filed an appeal of the Quebec Superior Court’s decision with the Quebec Court of Appeal.
- On August 1, 2016, the Quebec Court of Appeal issued its decision, ruling against CF(L)Co.
- Following a comprehensive review of this judgment and advice from its legal counsel, CF(L)Co has decided there are serious grounds to seek leave to appeal the decision with the Supreme Court of Canada.
- Under the Power and Renewal Contracts, energy generated from the Churchill Falls Generating Station in Labrador is sold to Hydro-Québec. The 1969 Power Contract expired on August 31, 2016 and the Renewal Contract came into effect September 1, 2016 and is in effect for 25 years.

Key messages:

- We were deeply disappointed with the decision on the appeal of the court case in relation to the power contract for Churchill Falls (referred to as the Good Faith case) which ruled in favour of Hydro Quebec on August 1.
• We support Churchill Falls Labrador Corporation (CFLCo) in seeking leave to appeal the decision with the Supreme Court of Canada.

• This case has the potential to benefit all Newfoundlanders and Labradors and we intend to see this through to the end.
Marshall, Andrea

From: Snook, Corey
Sent: Wednesday, October 05, 2016 3:00 PM
To: Parsons, Walter
Subject: FW: Boards of Directors Overlap.docx
Attachments: Boards of Directors Overlap.docx

Walter,

He is the regulated utilities' boards of directors info you requested. See attached and Christine’s summary below.

-Corey

Corey Snook  
Director of Electricity and Alternative Energy (Acting)  
Department of Natural Resources  
Government of Newfoundland and Labrador  
St. John's, NL, Canada  
A1B 4J6  
coreysnook@gov.nl.ca  
O: 709.729.3131 / M: 709.725.8186

From: Boland, Christine  
Sent: Friday, September 30, 2016 11:58 AM  
To: Snook, Corey  
Subject: Boards of Directors Overlap.docx

Hi Corey,

Attached please see Rafik’s table on board of director overlap between parent corporations and utilities in Canada.

In summary, 4 of 13 PTs have a parent company for their utility (i.e. NL, NS, PEI, ON), of which 2 have an overlap with their parent and utility board – NL and NS.

NS’s overlap consists of one member – Christopher Huskilson, President and CEO of Emera who also sits on the board for NS Power. Mr. Huskilson is not the chair of either of these boards.

<table>
<thead>
<tr>
<th>PT</th>
<th>Parent</th>
<th>Utility</th>
<th>Board Overlap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newfoundland and Labrador</td>
<td>Nalcor Energy</td>
<td>Newfoundland and Labrador Hydro</td>
<td>5 of 5 utility board members currently sit on Nalcor’s 5 member board</td>
</tr>
<tr>
<td></td>
<td>Fortis Inc.</td>
<td>Newfoundland Power</td>
<td>-</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>Emera Inc.</td>
<td>Nova Scotia Power</td>
<td>1 of 8 board members currently sit on Emera’s 13 member board</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>Fortis Inc.</td>
<td>Maritime Electric</td>
<td>-</td>
</tr>
<tr>
<td>Ontario</td>
<td>Ontario Power Generation</td>
<td>Hydro One</td>
<td>-</td>
</tr>
</tbody>
</table>

Christine
### Boards of Directors

**Province: Newfoundland and Labrador**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nalcor</td>
<td>NL Hydro</td>
<td></td>
</tr>
<tr>
<td><strong>Board Member Name</strong></td>
<td><strong>Board Member Name</strong></td>
<td></td>
</tr>
<tr>
<td>1) John Green Q.C. (Interim Chair)</td>
<td>1) John Green Q.C. (Interim Chair)</td>
<td>X</td>
</tr>
<tr>
<td>2) Donna Brewer</td>
<td>2) Donna Brewer</td>
<td>X</td>
</tr>
<tr>
<td>3) Heather M. Jacobs, Q.C.</td>
<td>3) Heather M. Jacobs, Q.C.</td>
<td>X</td>
</tr>
<tr>
<td>4) Chris Loomis</td>
<td>4) Chris Loomis</td>
<td>X</td>
</tr>
<tr>
<td>5) Stan Marshall, CEO</td>
<td>5) Stan Marshall, CEO</td>
<td>X</td>
</tr>
</tbody>
</table>

Source 2: [https://www.nlhydro.com/about-hydro/board-of-directors/](https://www.nlhydro.com/about-hydro/board-of-directors/)

---

### Boards of Directors

**Province: Newfoundland and Labrador**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fortis Inc.</td>
<td>Newfoundland Power</td>
<td></td>
</tr>
<tr>
<td><strong>Board Member Name</strong></td>
<td><strong>Board Member Name</strong></td>
<td></td>
</tr>
<tr>
<td>1) Douglas J. Haughey (Chair)</td>
<td>1) Anne Whelan (Chair)</td>
<td></td>
</tr>
<tr>
<td>2) Tracey C. Ball</td>
<td>2) Edward Murphy</td>
<td></td>
</tr>
<tr>
<td>3) Pierre J. Blouin</td>
<td>3) Earl Ludlow</td>
<td></td>
</tr>
<tr>
<td>4) Peter E. Case</td>
<td>4) Michelle Melendy</td>
<td></td>
</tr>
<tr>
<td>5) Maura J. Clark</td>
<td>5) Susan Hollett</td>
<td></td>
</tr>
<tr>
<td>6) Margaret K. Dilley</td>
<td>6) Ken Bennett</td>
<td></td>
</tr>
<tr>
<td>7) Ida J. Goodreau</td>
<td>7) Fred Cahill</td>
<td></td>
</tr>
<tr>
<td>8) R. Harry McWatters</td>
<td>8) Glenn Mifflin</td>
<td></td>
</tr>
<tr>
<td>9) Ronald D. Munkley</td>
<td>9) John Gaudet</td>
<td></td>
</tr>
<tr>
<td>10) David G. Norris</td>
<td>10) Michael Mosher</td>
<td></td>
</tr>
<tr>
<td>11) Barry V. Perry</td>
<td>11) Gray Smith, President &amp; CEO</td>
<td></td>
</tr>
<tr>
<td>12) Jo Mark Zurel</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source 2: [http://www.newfoundlandpower.com/AboutUs/LeadershipTeam.aspx](http://www.newfoundlandpower.com/AboutUs/LeadershipTeam.aspx)
### Province: Nova Scotia

<table>
<thead>
<tr>
<th>Parent / Crown Corporation:</th>
<th>Regulated Utility Subsidiary:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emera Inc.</td>
<td>Nova Scotia Power</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Board Member Name</th>
<th>Board Member Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Jackie Sheppard, Q.C. (Chair)</td>
<td>1) Scott Balfour (Chair)</td>
</tr>
<tr>
<td>2) Sylvia Chrominska</td>
<td>2) Karen Hutt</td>
</tr>
<tr>
<td>3) Henry E. Demone</td>
<td>3) Lee Bragg</td>
</tr>
<tr>
<td>4) Allan Edgeworth</td>
<td>4) Sandra Greer</td>
</tr>
<tr>
<td>5) James Eisenhauer</td>
<td>5) Raymond Ivany</td>
</tr>
<tr>
<td>6) Christopher Huskilson, President &amp; CEO</td>
<td>5) Christopher Huskilson</td>
</tr>
<tr>
<td>7) J. Wayne Leonard</td>
<td>7) Marie Rounding</td>
</tr>
<tr>
<td>8) Lynn Loewen</td>
<td>8) Elaine Sibson</td>
</tr>
<tr>
<td>9) John McLennan</td>
<td></td>
</tr>
<tr>
<td>10) Donald Pether</td>
<td></td>
</tr>
<tr>
<td>11) John Ramil</td>
<td></td>
</tr>
<tr>
<td>12) Andrea S. Rosen</td>
<td></td>
</tr>
<tr>
<td>13) Richard Sergel</td>
<td></td>
</tr>
</tbody>
</table>


### Province: Prince Edward Island

<table>
<thead>
<tr>
<th>Parent / Crown Corporation:</th>
<th>Regulated Utility Subsidiary:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fortis Inc.</td>
<td>Maritime Electric</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Board Member Name</th>
<th>Board Member Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Douglas J. Haughey (Chair)</td>
<td>1) James C. Bradley (Chair)</td>
</tr>
<tr>
<td>2) Tracey C. Ball</td>
<td>2) Karen A. Creighan</td>
</tr>
<tr>
<td>3) Pierre J. Blouin</td>
<td>3) Earl A. Ludlow</td>
</tr>
<tr>
<td>4) Peter E. Case</td>
<td>4) John D. Gaudet, President &amp; CEO</td>
</tr>
<tr>
<td>5) Maura J. Clark</td>
<td>5) Gary J. Smith</td>
</tr>
<tr>
<td>6) Margarita K. Dilley</td>
<td>6) R. Keith O'Neill</td>
</tr>
<tr>
<td>7) Ida J. Goodreau</td>
<td>7) D. Blair MacLauchlan</td>
</tr>
<tr>
<td>8) R. Harry McWatters</td>
<td>8) Jacqueline McIntyre</td>
</tr>
<tr>
<td>9) Ronald D. Munkley</td>
<td>9) Robert L. Sear</td>
</tr>
<tr>
<td>10) David G. Norris</td>
<td>10) Brian L. Thompson</td>
</tr>
<tr>
<td>11) Barry V. Perry</td>
<td></td>
</tr>
<tr>
<td>12) Jo Mark Zurel</td>
<td></td>
</tr>
</tbody>
</table>


Source 2: [http://www.maritiemalelectric.com/about_us/about_corporate_profile.aspx](http://www.maritiemalelectric.com/about_us/about_corporate_profile.aspx)
Province: New Brunswick

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>New Brunswick Power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Member Name</td>
<td>Board Member Name</td>
<td></td>
</tr>
<tr>
<td>1) Ed Barrett (Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Judith Athaide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Norman Betts (Vice-Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Alain Bossé</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Charles Frlotte</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Andrew MacGillivray</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Paul McCoy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Mark E. Reddemann</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Michael Sellman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10) Barbara Trenholm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) Vicki Wallace-Godbout</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12) Mike Wilson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13) Gaétan Thomas, President &amp; CEO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Province: Quebec

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydro Quebec</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Member Name</td>
<td>Board Member Name</td>
<td></td>
</tr>
<tr>
<td>1) Michael D. Penner (Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Éric Martel, President &amp; CEO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Geneviève Bich</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Anik Brochu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Carl Cassista</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Gilbert Charland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Michelle Cormier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Anne-Marie Croteau</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Laurent Ferreira</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10) Éric Forest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) Hélène V. Gagnon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12) Suzanne Gouin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13) Isabelle Hudon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14) Yvon Marcoux</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15) Marie-Josée Morency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16) Paul Stinis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17) Marie-Anne Tawil</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: [http://www.hydroquebec.com/about/who-are-we/corporate-governance/board-directors.html](http://www.hydroquebec.com/about/who-are-we/corporate-governance/board-directors.html)
Province: Ontario

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontario Power Generation</td>
<td>Hydro One</td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Board Member Name</th>
<th>Board Member Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Bernard Lord (Chair)</td>
<td>1) David F. Denison (Chair)</td>
</tr>
<tr>
<td>2) Jeffrey J. Lyash</td>
<td>2) Ian A. Bourne</td>
</tr>
<tr>
<td>3) Nicole Boivin</td>
<td>3) Charles Brindamour</td>
</tr>
<tr>
<td>4) William A. (Bill) Coley</td>
<td>4) Marc Caira</td>
</tr>
<tr>
<td>5) Elisabeth (Lisa) DeMarco</td>
<td>5) Christie J. Clark</td>
</tr>
<tr>
<td>6) Jean Paul (JP) Gladu</td>
<td>6) George L. Cooke</td>
</tr>
<tr>
<td>7) Brendan Hawley</td>
<td>7) M. Marianne Harris</td>
</tr>
<tr>
<td>8) John Herron</td>
<td>8) James D. Hinds</td>
</tr>
<tr>
<td>9) Ira T. Kagan</td>
<td>9) Kathryn J. Jackson</td>
</tr>
<tr>
<td>10) M. George Lewis</td>
<td>10) Roberta L. Jamieson</td>
</tr>
<tr>
<td>11) Peggy Mulligan</td>
<td>11) Hon. Frances L. Lankin</td>
</tr>
<tr>
<td>12) Yezdi Pavri</td>
<td>12) Philip Orsino</td>
</tr>
<tr>
<td>13) Gerry Phillips</td>
<td>13) Jane L. Peverett</td>
</tr>
<tr>
<td>14) Jim Reinsch</td>
<td>14) Gale Rubenstein</td>
</tr>
<tr>
<td>15) Mayo Schmidt, President &amp; CEO</td>
<td></td>
</tr>
</tbody>
</table>

Source 2: [http://www.hydroone.com/investor/relations/corporategovernance/Pages/BoardMemberBio.aspx](http://www.hydroone.com/investor/relations/corporategovernance/Pages/BoardMemberBio.aspx)

Note: Beside the Government of Ontario owned crown corporation (Ontario Power Generation) and their main public utility (Hydro One), Ontario has many municipal and local distribution companies. Two of their biggest municipal distribution companies are Toronto Hydro with about 890,000 customers and Hydro Ottawa with about 296,000 customers.

Province: Manitoba

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba Hydro</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Board Member Name</th>
<th>Board Member Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) H. Sanford Riley (Chair)</td>
<td></td>
</tr>
<tr>
<td>2) Steve Kroft</td>
<td></td>
</tr>
<tr>
<td>3) David Brown</td>
<td></td>
</tr>
<tr>
<td>4) Earl Edmondson</td>
<td></td>
</tr>
<tr>
<td>5) Cliff Graydon</td>
<td></td>
</tr>
<tr>
<td>6) Jennefer Nepinak</td>
<td></td>
</tr>
<tr>
<td>7) Michael Pyle</td>
<td></td>
</tr>
<tr>
<td>8) Allen Snyder</td>
<td></td>
</tr>
<tr>
<td>9) Dayna Spiring</td>
<td></td>
</tr>
<tr>
<td>10) Dr. Annette Trimbee</td>
<td></td>
</tr>
</tbody>
</table>

Source: [https://www.hydro.mb.ca/corporate/org_charts/electric_board.shtml](https://www.hydro.mb.ca/corporate/org_charts/electric_board.shtml)
**Province: Saskatchewan**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sask Power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Member Name</td>
<td>Board Member Name</td>
<td></td>
</tr>
<tr>
<td>1) Rob Petch (Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Bill Wheatley</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Bryan Leverick</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Dale Bloom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Judy Harwood</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Leslie Neufeld</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Mick MacBean</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Karri Howlett</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Tammy Van Lambaigen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10) John Hyshka</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) Merin Coutts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12) Jim Hopson</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


**Province: Alberta**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENMAX Corporation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Member Name</td>
<td>Board Member Name</td>
<td></td>
</tr>
<tr>
<td>1) Gregory Melchin (Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Gianna Manes, President &amp; CEO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Neil Camarta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Peter Demong</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Michael Harris</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Donald Lenz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Eric Markell</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Sarah Morgan-Silvester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Robert Page</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10) Brian Pincott</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) Elise Rees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12) Charles Ruigrok</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13) Kathleen Sendall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14) Richard Shaw</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Note: Alberta has several private and municipal electricity generation and distribution companies. ENMAX Corporation is the biggest municipal distribution corporation with about 836,000 customers and TransAlta is the main public owned electricity generation corporation (Board of Directors: [http://www.transalta.com/about-us/leadership/board-directors](http://www.transalta.com/about-us/leadership/board-directors)).
Province: British Columbia

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BC Hydro</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Board Member Name</strong></td>
<td><strong>Board Member Name</strong></td>
<td></td>
</tr>
<tr>
<td>1) W.J. Brad Bennett (Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Bill Adsit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) James M. Brown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) James P. Hatton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Tracy Redies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Valerie Lambert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Janine North</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) John Knappett</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) John Ritchie</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10) Jack Weisgerber</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source 1: https://www.bchydro.com/about/who-we-are/board-of-directors.html
Source 2: http://www2.powerex.com/AboutUs/BoardOfDirectors.aspx

Province: British Columbia

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fortis Inc.</td>
<td>FortisBC</td>
<td></td>
</tr>
<tr>
<td><strong>Board Member Name</strong></td>
<td><strong>Board Member Name</strong></td>
<td></td>
</tr>
<tr>
<td>1) Douglas J. Haughey (Chair)</td>
<td>1) David R. Podmore (Chair)</td>
<td></td>
</tr>
<tr>
<td>2) Tracey C. Ball</td>
<td>2) Phonse Delaney</td>
<td></td>
</tr>
<tr>
<td>3) Pierre J. Blouin</td>
<td>3) Brenda Eaton</td>
<td></td>
</tr>
<tr>
<td>4) Peter E. Case</td>
<td>4) Ida J. Goodreau</td>
<td></td>
</tr>
<tr>
<td>5) Maura J. Clark</td>
<td>5) David G. Hutchens</td>
<td></td>
</tr>
<tr>
<td>6) Margarita K. Dilley</td>
<td>6) Tracy Medve</td>
<td></td>
</tr>
<tr>
<td>7) Ida J. Goodreau</td>
<td>7) Michael Mulcahy, President &amp; CEO</td>
<td></td>
</tr>
<tr>
<td>8) R. Harry McWatters</td>
<td>8) Barry V. Perry</td>
<td></td>
</tr>
<tr>
<td>9) Ronald D. Munkley</td>
<td>9) Christopher F. Scott</td>
<td></td>
</tr>
<tr>
<td>10) David G. Norris</td>
<td>10) Karl W. Smith</td>
<td></td>
</tr>
<tr>
<td>11) Barry V. Perry</td>
<td>11) Janet P. Woodruff</td>
<td></td>
</tr>
<tr>
<td>12) Jo Mark Zurel</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source 1: https://www.fortisinc.com/about-us/about-us#board-of-directors
Source 2: https://www.fortisbc.com/About/leadershipteam/Pages/Board-of-Directors.aspx
### Territory: Nunavut

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Qulliq Energy Corporation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Board Member Name</strong></td>
<td><strong>Board Member Name</strong></td>
<td></td>
</tr>
<tr>
<td>1) Julie-Anne Miller (Acting Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Joshua Arreak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Philip Clark</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Elijah Evaudjuk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) George Hickes Sr.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Roy Mullins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Nelson Pisco</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Bert Rose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Allysha Sateana</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


### Territory: Yukon

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yukon Energy</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Board Member Name</strong></td>
<td><strong>Board Member Name</strong></td>
<td></td>
</tr>
<tr>
<td>1) Kells Boland (Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Blair Hogan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Cam Malloch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Clint McCuaig</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Curtis Shaw</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Erin Stehelin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) John Jensen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Sue Craig</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Wendy Shanks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


### Territory: Northwest Territories

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Northwest Territories Power Corporation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Board Member Name</strong></td>
<td><strong>Board Member Name</strong></td>
<td></td>
</tr>
<tr>
<td>1) Paul Guy (Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Mike Aumond</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Martin Goldney</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Sylvia Haener</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Russ Neudorf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) David Stewart</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: [https://www.nlpc.com/about-nlpc/our-team](https://www.nlpc.com/about-nlpc/our-team)

**Notes:**
1. Pages 35-43 have been redacted in full under section 34(1)(a)(i); section 29(1)(a) also applies to portions of content on these pages.
2. Pages 44-62 have been redacted in full under sections 27(1)(h) and 27(2)(a).
Marshall, Andrea

From: Bown, Charles W.
Sent: Wednesday, October 19, 2016 9:17 AM
To: Caines, Tina M
Subject: FW: Hutchings OCOR
Attachments: Hutchings BAK.docx

From: Snook, Corey
Sent: Tuesday, October 18, 2016 5:58 PM
To: Bown, Charles W.
Cc: Parsons, Walter
Subject: Hutchings OCOR

Charles,

Attached is the revised Hutching OCOR with the minister’s edits. I cannot check it back into TRIM due to some sort of TRIM system error. (Grrrrrr)

I am in Moncton tomorrow, so rather than deal with the TRIM issue now or tomorrow, please consider this the master and we can check it in later. (I will try from home tonight.)

The key changes/additions are underlined below. Diana provided the A20 text as requested.

Q7: Please provide what exactly represents the additional cost as contained in each category above when comparing the cost at sanction to what was released in June 2016.

A7: EY’s April 2016 interim review of Muskrat Falls project cost, schedule and related risk highlighted key factors relating to increased costs, including:

- the Muskrat Falls generation contract for powerhouse and intake area civil construction was significantly behind schedule which will have material impacts on cost and schedule;
- the contingency level was low for the stage of completion of the project; and
- there was a risk of multiple-month delay to completion of the HVdc transmission line due to delivery challenges and risks associated with the remaining scope.

EY’s interim report is posted online at http://www.gov.nl.ca/MFOversight/pdf/EYCOSTSCHEDULERISKS_Apr.pdf

The June 2016 project update was reflective of EY’s findings, with the following primary factors influencing cost changes since 2012:

- Contractor performance and additional project management execution primarily at the Muskrat Falls generating site;
- Construction design enhancements/adjustments to various generation and transmission components to ensure optimal design, efficiency and long-term reliability;
Hydro Quebec

Q20: Is the current government exploring the option of selling excess energy through Hydro Quebec? Have any negotiations commenced with Hydro Quebec?

A20: Nalcor has been already selling excess energy in Labrador using Hydro Quebec’s transmission system for several years – this is not new. The company continues to explore opportunities with multiple customers to enhance the value of energy that is surplus to the province’s needs.

Our Government is always open to conversations with the Government of Quebec about matters of interest to both provinces as we currently do at intergovernmental forums; Quebec has signaled to us that they would like to have a better relationship. We are certainly open to that.
Mr. Keith Hutchings  
Official Opposition Critic, Department of Natural Resources  
Official Opposition Office  
5th Floor, East Block, Confederation Building

Dear Mr. Hutchings:

**RE: Muskrat Falls Questions**

Thank you for your August 1, 2016 letter posing a series of questions regarding the Muskrat Falls Project and related electricity sector issues. Our responses to your 23 questions follow below.

Our government shares the sentiment expressed in your letter regarding openness and transparency. That is why we hired independent international consulting firm, EY to thoroughly review the remaining project cost and schedules. When our government took office, we committed to controlling project costs and ensuring all the necessary steps are taken to identify and mitigate any remaining engineering and construction risks as the project proceeds; and our actions, to date, reflect that commitment.

We also appointed a highly qualified and proven utility leader as Nalcor’s new CEO, Mr. Stan Marshall. Our Government is also in the process of appointing a new Nalcor Board of Directors that will be selected based on merit by the Independent Appointments Commission.

In addition, we have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power; and we have directed Mr. Marshall to identify other opportunities to bring rates closer to those predicted at project sanction.

Our Government inherited the project along with the schedule delays, lack of oversight and budget failures under the previous administration. We have taken ownership of addressing the challenges and are getting the project on track for the people of this province.

The completion of your request involved several departments and Nalcor. I trust that we have responded to all of your questions.

Sincerely,

SIOBHAN COADY, MHA  
St. John’s West  
Minister

c. Honourable Dwight Ball, Premier
Questions and Answers

Q1: Please provide the detailed updated load forecast for the Island Interconnected System from 2016 - 2067. Please include all revised assumptions and information that was used to create this updated forecast. Please indicate what assumptions and information has changed since the 2012 sanction and original forecast.

Q2: Please specify the current forecasted demand of residential customers, commercial customers, and industrial customers, on both the island and in Labrador from 2016 - 2067. Please indicate why each of these independent demands has changed since the 2012 forecast and what Information supported each demand change for residential, commercial and industrial customers.

A1 and A2: Please refer to the “A1-A2 Load & Price Forecast” below:
### ECONOMIC INDICATORS FORECAST - NLH Long Term Planning Forecast (2012)

**Annual Compound Growth Rates Relative to Year 2015**

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL Gross Domestic Product¹</td>
<td>0.1%</td>
<td>0.5%</td>
<td>0.6%</td>
</tr>
<tr>
<td>NL Personal Disposable Income</td>
<td>0.8%</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

**Cumulative Units Post 2015**

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL Housing Construction Starts</td>
<td>11,931</td>
<td>21,079</td>
<td>28,275</td>
</tr>
</tbody>
</table>

### ECONOMIC INDICATORS FORECAST - NLH Long Term Planning Forecast (May 2016) ²

**Annual Compound Growth Rates Relative to Year 2015**

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL Gross Domestic Product¹</td>
<td>-2.2%</td>
<td>-1.0%</td>
<td>-0.5%</td>
</tr>
<tr>
<td>NL Household Disposable Income</td>
<td>-2.6%</td>
<td>-0.8%</td>
<td>-0.2%</td>
</tr>
</tbody>
</table>

**Cumulative Units Post 2015**

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL Housing Construction Starts</td>
<td>5,170</td>
<td>11,120</td>
<td>18,695</td>
</tr>
</tbody>
</table>

**Notes:**

1. Growth rates reflect constant dollar GDP that excludes income earned by non-resident owners of Newfoundland mega-projects.
2. NLH May 2016 planning forecast is based on NL Budget Forecast, Spring 2016 and NL long term economic forecast, June 2015.

**Economic Forecast Source:** Department of Finance, Government of Newfoundland and Labrador

**Source:**
Market Analysis Section, System Planning Department
Newfoundland and Labrador Hydro
# NLH Planning Load Forecast - Interconnected Island System

## Economic Inputs and Island System Utility Impacts

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>31,796</td>
<td>32,426</td>
<td>33,059</td>
<td>33,692</td>
<td>34,326</td>
<td>34,960</td>
<td>35,594</td>
<td>36,228</td>
<td>36,862</td>
<td>37,496</td>
<td>38,130</td>
<td>38,764</td>
<td>39,398</td>
<td>39,932</td>
<td>40,466</td>
<td>40,990</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>0.6</td>
<td>-2.5</td>
<td>-4.6</td>
<td>-6.7</td>
<td>-8.8</td>
<td>-11.0</td>
<td>-13.2</td>
<td>-15.4</td>
<td>-17.6</td>
<td>-19.8</td>
<td>-22.1</td>
<td>-24.3</td>
<td>-26.6</td>
<td>-28.9</td>
<td>-31.2</td>
<td>-33.5</td>
<td></td>
</tr>
<tr>
<td>Household Disposable Income (2016 MQA)</td>
<td>33,239</td>
<td>33,593</td>
<td>33,948</td>
<td>34,304</td>
<td>34,669</td>
<td>35,034</td>
<td>35,400</td>
<td>35,766</td>
<td>36,132</td>
<td>36,498</td>
<td>36,865</td>
<td>37,232</td>
<td>37,599</td>
<td>37,966</td>
<td>38,333</td>
<td>38,700</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>-1.4</td>
<td>-6.9</td>
<td>-4.4</td>
<td>-2.9</td>
<td>-1.4</td>
<td>-0.8</td>
<td>-0.2</td>
<td>-0.6</td>
<td>-1.0</td>
<td>-1.4</td>
<td>-1.8</td>
<td>-2.2</td>
<td>-2.6</td>
<td>-3.0</td>
<td>-3.4</td>
<td>-3.8</td>
<td>-4.2</td>
</tr>
<tr>
<td>Commercial/Miscellaneous (2016 MQA)</td>
<td>450</td>
<td>460</td>
<td>470</td>
<td>480</td>
<td>490</td>
<td>500</td>
<td>510</td>
<td>520</td>
<td>530</td>
<td>540</td>
<td>550</td>
<td>560</td>
<td>570</td>
<td>580</td>
<td>590</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>-0.7</td>
<td>-3.9</td>
<td>-2.4</td>
<td>-1.8</td>
<td>-1.2</td>
<td>-0.6</td>
<td>-0.0</td>
<td>-0.4</td>
<td>-0.8</td>
<td>-1.2</td>
<td>-1.6</td>
<td>-2.0</td>
<td>-2.4</td>
<td>-2.8</td>
<td>-3.2</td>
<td>-3.6</td>
<td>-4.0</td>
</tr>
<tr>
<td>Housing Units</td>
<td>1450</td>
<td>1400</td>
<td>1350</td>
<td>1300</td>
<td>1250</td>
<td>1200</td>
<td>1150</td>
<td>1100</td>
<td>1050</td>
<td>1000</td>
<td>950</td>
<td>900</td>
<td>850</td>
<td>800</td>
<td>750</td>
<td>700</td>
<td></td>
</tr>
<tr>
<td>Population (2016 MQA)</td>
<td>517</td>
<td>522</td>
<td>527</td>
<td>532</td>
<td>537</td>
<td>542</td>
<td>547</td>
<td>552</td>
<td>557</td>
<td>562</td>
<td>567</td>
<td>572</td>
<td>577</td>
<td>582</td>
<td>587</td>
<td>592</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>1.7</td>
<td>12.6</td>
<td>11.5</td>
<td>10.4</td>
<td>9.3</td>
<td>8.2</td>
<td>7.1</td>
<td>6.0</td>
<td>4.9</td>
<td>3.8</td>
<td>2.7</td>
<td>1.6</td>
<td>0.5</td>
<td>-0.6</td>
<td>-1.5</td>
<td>-2.4</td>
<td></td>
</tr>
</tbody>
</table>

## Interconnected Island System Utility Impacts:

- **Residential Customer (GDP)**
  - 248.8
- **Residential Sales (GWh)**
  - 3958
- **Commuter Sales (GWh)**
  - 64.6
- **General Service Customers Sales (GWh)**
  - 234.3

## NLM Comment with respect to NLH 2012 planning load forecast

- Lower GDP growth in current economic outlook
- Lower income growth in current economic outlook
- Building construction investment on par in current economic outlook
- Lower housing construction activity in current economic outlook
- Higher population in near term but lower in longer term than current economic outlook
- Lower customer growth in current forecast due to lower provincial income growth and lower housing construction
- Lower energy requirements in current forecast due to lower customer growth and lower average electricity consumption
- Lower growth in electric heat market share in current forecast due to lower electric prices and lower residential fuel prices
- General service customers requirements in current forecast on par with 2012 Planning Load Forecast

### Notes:
1. NLH May 2016 planning forecast is based on NL H budget inputs, spring 2014 and mid-term economic forecast, June 2015.
2. Adjusted GDP excludes income equality non-reimbursed work of Newfoundland Power employees.
3. Includes Newfoundland Power and NLH Island Power milk.
4. Includes Nalcor Power and NLH Island Power.
5. Sales utility requirement is sum of residential sales, commercial/mixed sales and general service sales and systems distribution losses.
6. Sum of Newfoundland Power and NLH Island Power non-plant.

Source:
- Market Analysis Section, System Planning Department
- Newfoundland and Labrador Hydro
## NLH Planning Load Forecast - Interconnected Island System

### Island System Summary

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Utility Requirements (GWh)</td>
<td>5631</td>
<td>5707</td>
<td>5794</td>
<td>5820</td>
<td>5831</td>
<td>5842</td>
<td>5888</td>
<td>5970</td>
<td>6279</td>
<td>6579</td>
<td>6676</td>
<td>6717</td>
<td>6768</td>
<td>6821</td>
<td>6874</td>
<td>6928</td>
<td>7030</td>
<td>7094</td>
<td>7198</td>
<td>7291</td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>0.9</td>
<td>1.1</td>
<td>0.9</td>
<td>0.1</td>
<td>1.1</td>
<td>0.5</td>
<td>0.9</td>
<td>0.3</td>
<td>0.7</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.7</td>
</tr>
<tr>
<td>Total Industrial Requirements (GWh)</td>
<td>1333</td>
<td>1360</td>
<td>1375</td>
<td>1397</td>
<td>1483</td>
<td>1504</td>
<td>1528</td>
<td>1548</td>
<td>1584</td>
<td>1598</td>
<td>1618</td>
<td>1622</td>
<td>1578</td>
<td>1588</td>
<td>1588</td>
<td>1588</td>
<td>1588</td>
<td>1588</td>
<td>1588</td>
<td>1588</td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>7.7</td>
<td>5.0</td>
<td>3.4</td>
<td>-0.6</td>
<td>0.9</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Transmission losses (GWh)</td>
<td>226</td>
<td>240</td>
<td>257</td>
<td>271</td>
<td>292</td>
<td>297</td>
<td>298</td>
<td>299</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Total Island Requirements (GWh)</td>
<td>8734</td>
<td>8735</td>
<td>8506</td>
<td>8495</td>
<td>8465</td>
<td>8157</td>
<td>8593</td>
<td>8476</td>
<td>8338</td>
<td>8285</td>
<td>8252</td>
<td>8324</td>
<td>8402</td>
<td>8458</td>
<td>8944</td>
<td>8905</td>
<td>9005</td>
<td>9079</td>
<td>9079</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>0.3</td>
<td>-0.1</td>
<td>-0.5</td>
<td>-0.9</td>
<td>-1.4</td>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Total Island Requirements (MW)</td>
<td>1724</td>
<td>1729</td>
<td>1732</td>
<td>1718</td>
<td>1709</td>
<td>1711</td>
<td>1697</td>
<td>1720</td>
<td>1729</td>
<td>1740</td>
<td>1760</td>
<td>1777</td>
<td>1796</td>
<td>1820</td>
<td>1821</td>
<td>1834</td>
<td>1846</td>
<td>1853</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. Forecast energy requirements include all loads served by NLH customers, NLH-owned generation, and non-utility generation.
2. Total industrial and total island requirements include 50 Hz and 60 Hz loads.
3. Total island MW requirements reflect average utility peak demand conditions (PSO weather).
4. Total island MW requirements do not include Holyrood Station service load.

**NLH Comments with respect to NLH 2012 Planning Load Forecast**

1. Long term industrial annual energy requirements forecast is 302 GWh lower than forecast in 2012 and primarily reflects reduced requirements for nickel processing at Vale's Long Harbour facilities.
2. Corner Brook Pulp & Paper annual energy requirements reduced by 6 percent from 2012 Planning Load Forecast.
3. North Atlantic Building annual energy requirements reduced by 10 percent from 2012 Planning Load Forecast.
4. Combined annual energy requirements of Fresnillo and Vale at Long Harbour reduced by over 30 percent from 2012 Planning Load Forecast.

**Source:** Market Analysis Section, System Planning Department
Newfoundland and Labrador Hydro.
### May 2015

**NLH Planning Load Forecast - Interconnected Island System**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Utility Requirements (GWh)</th>
<th>Total Industrial Requirements (GWh)</th>
<th>Transmission losses (GWh)</th>
<th>Total Island Requirements (GWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>6831</td>
<td>1393</td>
<td>247</td>
<td>8471</td>
</tr>
<tr>
<td>2017</td>
<td>6767</td>
<td>1500</td>
<td>247</td>
<td>8515</td>
</tr>
<tr>
<td>2018</td>
<td>6694</td>
<td>1575</td>
<td>237</td>
<td>8506</td>
</tr>
<tr>
<td>2019</td>
<td>6636</td>
<td>1597</td>
<td>232</td>
<td>8463</td>
</tr>
<tr>
<td>2020</td>
<td>6631</td>
<td>1588</td>
<td>227</td>
<td>8446</td>
</tr>
<tr>
<td>2021</td>
<td>6543</td>
<td>1588</td>
<td>226</td>
<td>8357</td>
</tr>
<tr>
<td>2022</td>
<td>6579</td>
<td>1588</td>
<td>226</td>
<td>8333</td>
</tr>
<tr>
<td>2023</td>
<td>6621</td>
<td>1588</td>
<td>227</td>
<td>8436</td>
</tr>
<tr>
<td>2024</td>
<td>6670</td>
<td>1588</td>
<td>228</td>
<td>8486</td>
</tr>
<tr>
<td>2025</td>
<td>6717</td>
<td>1588</td>
<td>228</td>
<td>8533</td>
</tr>
<tr>
<td>2026</td>
<td>6768</td>
<td>1588</td>
<td>229</td>
<td>8505</td>
</tr>
<tr>
<td>2027</td>
<td>6823</td>
<td>1588</td>
<td>229</td>
<td>8638</td>
</tr>
<tr>
<td>2028</td>
<td>6874</td>
<td>1588</td>
<td>230</td>
<td>8622</td>
</tr>
<tr>
<td>2029</td>
<td>6938</td>
<td>1588</td>
<td>231</td>
<td>8746</td>
</tr>
<tr>
<td>2030</td>
<td>6983</td>
<td>1588</td>
<td>231</td>
<td>8832</td>
</tr>
<tr>
<td>2031</td>
<td>7038</td>
<td>1588</td>
<td>232</td>
<td>8858</td>
</tr>
<tr>
<td>2032</td>
<td>7094</td>
<td>1588</td>
<td>233</td>
<td>8914</td>
</tr>
<tr>
<td>2033</td>
<td>7148</td>
<td>1588</td>
<td>233</td>
<td>8969</td>
</tr>
<tr>
<td>2034</td>
<td>7203</td>
<td>1588</td>
<td>234</td>
<td>9025</td>
</tr>
<tr>
<td>2035</td>
<td>7256</td>
<td>1588</td>
<td>235</td>
<td>9079</td>
</tr>
<tr>
<td>2036</td>
<td>7310</td>
<td>1588</td>
<td>236</td>
<td>9134</td>
</tr>
<tr>
<td>2037</td>
<td>7363</td>
<td>1588</td>
<td>238</td>
<td>9190</td>
</tr>
<tr>
<td>2038</td>
<td>7417</td>
<td>1588</td>
<td>240</td>
<td>9245</td>
</tr>
<tr>
<td>2039</td>
<td>7470</td>
<td>1588</td>
<td>242</td>
<td>9300</td>
</tr>
<tr>
<td>2040</td>
<td>7524</td>
<td>1588</td>
<td>244</td>
<td>9356</td>
</tr>
<tr>
<td>2041</td>
<td>7577</td>
<td>1588</td>
<td>246</td>
<td>9411</td>
</tr>
<tr>
<td>2042</td>
<td>7630</td>
<td>1588</td>
<td>248</td>
<td>9466</td>
</tr>
<tr>
<td>2043</td>
<td>7684</td>
<td>1588</td>
<td>249</td>
<td>9521</td>
</tr>
<tr>
<td>2044</td>
<td>7737</td>
<td>1588</td>
<td>251</td>
<td>9577</td>
</tr>
<tr>
<td>2045</td>
<td>7791</td>
<td>1588</td>
<td>253</td>
<td>9632</td>
</tr>
<tr>
<td>2046</td>
<td>7844</td>
<td>1588</td>
<td>255</td>
<td>9687</td>
</tr>
<tr>
<td>2047</td>
<td>7898</td>
<td>1588</td>
<td>257</td>
<td>9743</td>
</tr>
<tr>
<td>2048</td>
<td>7951</td>
<td>1588</td>
<td>259</td>
<td>9798</td>
</tr>
<tr>
<td>2049</td>
<td>8004</td>
<td>1588</td>
<td>261</td>
<td>9853</td>
</tr>
<tr>
<td>2050</td>
<td>8058</td>
<td>1588</td>
<td>263</td>
<td>9900</td>
</tr>
<tr>
<td>2051</td>
<td>8111</td>
<td>1588</td>
<td>264</td>
<td>9964</td>
</tr>
<tr>
<td>2052</td>
<td>8165</td>
<td>1588</td>
<td>266</td>
<td>10019</td>
</tr>
<tr>
<td>2053</td>
<td>8218</td>
<td>1588</td>
<td>268</td>
<td>10074</td>
</tr>
<tr>
<td>2054</td>
<td>8272</td>
<td>1588</td>
<td>270</td>
<td>10130</td>
</tr>
<tr>
<td>2055</td>
<td>8325</td>
<td>1588</td>
<td>272</td>
<td>10185</td>
</tr>
<tr>
<td>2056</td>
<td>8379</td>
<td>1588</td>
<td>274</td>
<td>10240</td>
</tr>
<tr>
<td>2057</td>
<td>8432</td>
<td>1588</td>
<td>276</td>
<td>10296</td>
</tr>
<tr>
<td>2058</td>
<td>8485</td>
<td>1588</td>
<td>277</td>
<td>10351</td>
</tr>
<tr>
<td>2059</td>
<td>8539</td>
<td>1588</td>
<td>279</td>
<td>10406</td>
</tr>
<tr>
<td>2060</td>
<td>8592</td>
<td>1588</td>
<td>281</td>
<td>10462</td>
</tr>
<tr>
<td>2061</td>
<td>8641</td>
<td>1588</td>
<td>283</td>
<td>10502</td>
</tr>
<tr>
<td>2062</td>
<td>8670</td>
<td>1588</td>
<td>284</td>
<td>10542</td>
</tr>
<tr>
<td>2063</td>
<td>8708</td>
<td>1588</td>
<td>285</td>
<td>10582</td>
</tr>
<tr>
<td>2064</td>
<td>8747</td>
<td>1588</td>
<td>287</td>
<td>10622</td>
</tr>
<tr>
<td>2065</td>
<td>8786</td>
<td>1588</td>
<td>288</td>
<td>10662</td>
</tr>
<tr>
<td>2066</td>
<td>8824</td>
<td>1588</td>
<td>289</td>
<td>10702</td>
</tr>
<tr>
<td>2067</td>
<td>8863</td>
<td>1588</td>
<td>291</td>
<td>10742</td>
</tr>
</tbody>
</table>

**Notes:**
1. Total utility requirements for 2018 through 2035 forecast using NLH econometric planning models.
2. Transmission losses include energy losses on 138/230 kV grid.
3. Total Island energy requirements include 50 Hz and 60 Hz Loads.

**Source:** Market Analysis Section, System Planning Department, Newfoundland and Labrador Hydro
## NLH Planning Load Forecast - Interconnected Labrador System

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Utility Requirements (GWh)</th>
<th>Total Industrial Requirements (GWh)</th>
<th>Transmission Losses (GWh)</th>
<th>Total Labrador Requirements (GWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>637</td>
<td>1795</td>
<td>154</td>
<td>2587</td>
</tr>
<tr>
<td>2017</td>
<td>656</td>
<td>1768</td>
<td>157</td>
<td>2591</td>
</tr>
<tr>
<td>2018</td>
<td>673</td>
<td>1765</td>
<td>157</td>
<td>2595</td>
</tr>
<tr>
<td>2019</td>
<td>673</td>
<td>1765</td>
<td>157</td>
<td>2595</td>
</tr>
<tr>
<td>2020</td>
<td>668</td>
<td>1765</td>
<td>157</td>
<td>2599</td>
</tr>
<tr>
<td>2021</td>
<td>669</td>
<td>1765</td>
<td>157</td>
<td>2599</td>
</tr>
<tr>
<td>2022</td>
<td>671</td>
<td>1765</td>
<td>157</td>
<td>2599</td>
</tr>
<tr>
<td>2023</td>
<td>672</td>
<td>1765</td>
<td>157</td>
<td>2599</td>
</tr>
<tr>
<td>2024</td>
<td>674</td>
<td>1765</td>
<td>157</td>
<td>2599</td>
</tr>
<tr>
<td>2025</td>
<td>676</td>
<td>1765</td>
<td>157</td>
<td>2599</td>
</tr>
<tr>
<td>2026</td>
<td>678</td>
<td>1765</td>
<td>157</td>
<td>2600</td>
</tr>
<tr>
<td>2027</td>
<td>679</td>
<td>1765</td>
<td>157</td>
<td>2602</td>
</tr>
<tr>
<td>2028</td>
<td>681</td>
<td>1765</td>
<td>157</td>
<td>2603</td>
</tr>
<tr>
<td>2029</td>
<td>682</td>
<td>1765</td>
<td>157</td>
<td>2605</td>
</tr>
<tr>
<td>2030</td>
<td>684</td>
<td>1765</td>
<td>157</td>
<td>2606</td>
</tr>
<tr>
<td>2031</td>
<td>685</td>
<td>1765</td>
<td>158</td>
<td>2608</td>
</tr>
<tr>
<td>2032</td>
<td>687</td>
<td>1765</td>
<td>158</td>
<td>2609</td>
</tr>
<tr>
<td>2033</td>
<td>688</td>
<td>1765</td>
<td>158</td>
<td>2611</td>
</tr>
<tr>
<td>2034</td>
<td>689</td>
<td>1765</td>
<td>158</td>
<td>2612</td>
</tr>
<tr>
<td>2035</td>
<td>690</td>
<td>1765</td>
<td>158</td>
<td>2613</td>
</tr>
<tr>
<td>2036</td>
<td>692</td>
<td>1765</td>
<td>158</td>
<td>2615</td>
</tr>
<tr>
<td>2037</td>
<td>693</td>
<td>1765</td>
<td>158</td>
<td>2616</td>
</tr>
<tr>
<td>2038</td>
<td>694</td>
<td>1765</td>
<td>158</td>
<td>2617</td>
</tr>
<tr>
<td>2039</td>
<td>696</td>
<td>1765</td>
<td>158</td>
<td>2619</td>
</tr>
<tr>
<td>2040</td>
<td>697</td>
<td>1765</td>
<td>158</td>
<td>2620</td>
</tr>
<tr>
<td>2041</td>
<td>698</td>
<td>1765</td>
<td>158</td>
<td>2621</td>
</tr>
<tr>
<td>2042</td>
<td>699</td>
<td>1765</td>
<td>158</td>
<td>2623</td>
</tr>
<tr>
<td>2043</td>
<td>701</td>
<td>1765</td>
<td>159</td>
<td>2624</td>
</tr>
<tr>
<td>2044</td>
<td>702</td>
<td>1765</td>
<td>159</td>
<td>2626</td>
</tr>
<tr>
<td>2045</td>
<td>703</td>
<td>1765</td>
<td>159</td>
<td>2627</td>
</tr>
<tr>
<td>2046</td>
<td>705</td>
<td>1765</td>
<td>159</td>
<td>2628</td>
</tr>
<tr>
<td>2047</td>
<td>706</td>
<td>1765</td>
<td>159</td>
<td>2630</td>
</tr>
<tr>
<td>2048</td>
<td>707</td>
<td>1765</td>
<td>159</td>
<td>2631</td>
</tr>
<tr>
<td>2049</td>
<td>708</td>
<td>1765</td>
<td>159</td>
<td>2632</td>
</tr>
<tr>
<td>2050</td>
<td>710</td>
<td>1765</td>
<td>159</td>
<td>2634</td>
</tr>
<tr>
<td>2051</td>
<td>711</td>
<td>1765</td>
<td>159</td>
<td>2635</td>
</tr>
<tr>
<td>2052</td>
<td>712</td>
<td>1765</td>
<td>159</td>
<td>2637</td>
</tr>
<tr>
<td>2053</td>
<td>714</td>
<td>1765</td>
<td>159</td>
<td>2638</td>
</tr>
<tr>
<td>2054</td>
<td>715</td>
<td>1765</td>
<td>159</td>
<td>2639</td>
</tr>
<tr>
<td>2055</td>
<td>716</td>
<td>1765</td>
<td>160</td>
<td>2641</td>
</tr>
<tr>
<td>2056</td>
<td>717</td>
<td>1765</td>
<td>160</td>
<td>2642</td>
</tr>
<tr>
<td>2057</td>
<td>719</td>
<td>1765</td>
<td>160</td>
<td>2643</td>
</tr>
<tr>
<td>2058</td>
<td>720</td>
<td>1765</td>
<td>160</td>
<td>2645</td>
</tr>
<tr>
<td>2059</td>
<td>721</td>
<td>1765</td>
<td>160</td>
<td>2646</td>
</tr>
<tr>
<td>2060</td>
<td>723</td>
<td>1765</td>
<td>160</td>
<td>2648</td>
</tr>
<tr>
<td>2061</td>
<td>724</td>
<td>1765</td>
<td>160</td>
<td>2649</td>
</tr>
<tr>
<td>2062</td>
<td>725</td>
<td>1765</td>
<td>160</td>
<td>2650</td>
</tr>
<tr>
<td>2063</td>
<td>726</td>
<td>1765</td>
<td>160</td>
<td>2652</td>
</tr>
<tr>
<td>2064</td>
<td>728</td>
<td>1765</td>
<td>160</td>
<td>2653</td>
</tr>
<tr>
<td>2065</td>
<td>729</td>
<td>1765</td>
<td>160</td>
<td>2654</td>
</tr>
<tr>
<td>2066</td>
<td>730</td>
<td>1765</td>
<td>160</td>
<td>2556</td>
</tr>
<tr>
<td>2067</td>
<td>732</td>
<td>1765</td>
<td>161</td>
<td>2557</td>
</tr>
</tbody>
</table>

**Notes:**
1. Utility requirements sourced to NLH Spring 2016 NLH Rural Load Forecast.
2. Industrial forecast includes IOCC and energy requirements for Wabush Mines site reclamation.
3. Transmission losses include energy losses on 138/230 kV grid.

**Source:** Market Analysis Section, System Planning Department, Newfoundland and Labrador Hydro
Q3: Please provide the projected electricity rates based on the new demand forecasts for all Identified users from 2016 - 2030, and a break out of what is included in each rate (i.e. equity return, rate of return to Nalcor, projected sale of excess energy and all other elements which make up the electricity rate).

A3: Please refer to the “A3 Rates Projections” below. Residential rates are provided, which is consistent with the DG3 approach. These rates reflect the June 2016 project cost update, rate of return, and the Island Interconnected load forecast outlined on slide 10 of the June 24, 2016 technical update provided below in A4. The rates do not include mitigating actions such as redirecting export sales to reduce rates.
A3 Rates Projections
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Island Interconnected Domestic Rate (Mills per KWh)</td>
<td>11.75</td>
<td>12.02</td>
<td>12.98</td>
<td>13.70</td>
<td>15.57</td>
<td>21.37</td>
<td>21.69</td>
<td>22.25</td>
<td>22.47</td>
<td>23.63</td>
<td>23.97</td>
<td>23.63</td>
<td>23.12</td>
<td>23.56</td>
<td>23.88</td>
</tr>
</tbody>
</table>

* HST excluded
Q4: Please provide the electricity rate transmission cost from Muskrat Falls to the Soldiers Pond Station; please provide the total cost of delivery from Muskrat Falls to Emera; please provide any changes in cost assumptions and related data to support these changes.

A4: This information is provided on page 9 in the June 24, 2016 Muskrat Falls technical briefing presentation below. If this slide does not address your questions, please let us know.
Muskrat Falls Project Update
Technical Briefing
June 24, 2016

Boundless Energy

nalcower
Overview

- Muskrat Falls projected capital cost and schedule
- Unit energy cost projections for Muskrat Falls production
- Updated Island Interconnected load forecast
- Summary of Muskrat Falls production
- Muskrat Falls unit energy cost projections for NL Hydro (NLH)
- Domestic electricity rate projections
- Provincial equity requirements
Muskrat Falls Generation (MF)

As of May 2016:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spent</td>
<td>$2.3B</td>
</tr>
<tr>
<td>Committed but not spent</td>
<td>$0.9B</td>
</tr>
<tr>
<td>Projected balance</td>
<td>$1.6B</td>
</tr>
</tbody>
</table>

- 824 megawatts; 4.9 terawatt hours/yr (TWh)
- Projected facilities costs:
  - Sanction $2.9B
  - June 2016 $4.8B
- Projected in service dates:
  - Sanction: first power Q4 2017; full power Q2 2018
  - June 2016: first power Q3 2019; full power Q2 2020
- Emera to receive 20% of energy for 35 years at no cost and an additional 5% during first five years, delivered during off-peak.
Labrador-Island Link (LIL)

- 1,100 km line from Muskrat Falls to Soldiers Pond
- 30 km across the Strait of Belle Isle (SOBI)
- SOBI completion by end of 2016
- Projected facilities costs:
  - Sanction $2.6B
  - June 2016 $3.4B
- Projected in service dates:
  - Sanction: Q2 2017
  - June 2016: Q2 2018
- Emera provides equity contribution of $0.6B based on current estimates to receive regulated utility rate of return

As of May 2016:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spent</td>
<td>$1.7B</td>
</tr>
<tr>
<td>Committed but not spent</td>
<td>$1.1B</td>
</tr>
<tr>
<td>Projected balance</td>
<td>$0.6B</td>
</tr>
</tbody>
</table>
Labrador Transmission Assets (LTA)

- Churchill Falls to Muskrat Falls
- Two, 250 km 315 kilovolt lines
- Projected facilities costs:
  - Sanction $692M
  - June 2016 $878M
- Projected in service dates:
  - Sanction: Q2 2017
  - June 2016: Q2 2018
- Completion of construction of the transmission line at end of 2016

As of May 2016:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spent</td>
<td>$665M</td>
</tr>
<tr>
<td>Committed but not spent</td>
<td>$104M</td>
</tr>
<tr>
<td>Projected balance</td>
<td>$109M</td>
</tr>
</tbody>
</table>
Maritime Link (Emera)

- Constructed, owned and operated by Emera for 35 years
- 500 MW capacity
- 170 km undersea link from Cape Ray, NL to Cape Breton, NS
- Projected facilities cost $1.58B
- Projected in service Q4 2017
- Nalcor has transmission rights to import/export power
Muskrat Falls Projected In-service Cost

Sanction 2012
- Financing and Other: $1.2
- LIL: $2.6
- LTA: $0.7
- MF: $3.1
- Total: $7.4

Current
- Financing and Other: $2.3
- LIL: $3.4
- LTA: $0.9
- MF: $4.5
- Total: $11.4

$12.0
$11.0
$10.0
$9.0
$8.0
$7.0
$6.0
$5.0
$4.0
$3.0
$2.0
$1.0
$0.0

($ Billion)
Overall Project Cost Increase – Contributing Factors

- Original cost estimates were optimistic/overly aggressive
- Risks of the project were underestimated at the beginning
- Lack of experience of some contractors working in our harsh environment
- Early execution by some major contractors was poor
Unit Cost Projections
(For power delivered at Soldiers Pond)

Muskrat Falls Unit Cost Projection by Project Component
(2021 - cents/kWh)

Total = 15.87 cents/kWh

Muskrat Falls Unit Cost Projection by Cost Category
(2021 - cents/kWh)

Total = 15.87 cents/kWh
NL Hydro Island Interconnected Sales

Note: May 2016 load forecast based on a domestic rate of 15.4 cents/kWh (17.7 cents/kWh after HST) in 2020 escalating at 2% thereafter.

Key Drivers:
- Less robust provincial economic outlook
- Higher electricity prices in the longer-term (including relative price to furnace oil)
- Lower provincial housing construction
- Lower industrial load
Muskrat Falls Unit Cost Projections for NLH

<table>
<thead>
<tr>
<th>Year</th>
<th>MF Exports and Nalcor share of net income</th>
<th>MF cost to NLH net of exports &amp; net income</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>55.49</td>
<td>32.52</td>
</tr>
<tr>
<td>2022</td>
<td>49.89</td>
<td>29.92</td>
</tr>
<tr>
<td>2023</td>
<td>48.39</td>
<td>28.56</td>
</tr>
<tr>
<td>2024</td>
<td>47.87</td>
<td>27.33</td>
</tr>
<tr>
<td>2025</td>
<td>47.34</td>
<td>25.70</td>
</tr>
<tr>
<td>2030</td>
<td>41.30</td>
<td>19.06</td>
</tr>
<tr>
<td>2035</td>
<td>41.05</td>
<td>16.27</td>
</tr>
<tr>
<td>2040</td>
<td>42.88</td>
<td>15.36</td>
</tr>
</tbody>
</table>
Island Interconnected Domestic Rate Projections

<table>
<thead>
<tr>
<th>Year</th>
<th>NP Costs</th>
<th>NLH Other</th>
<th>MF purchased power cost</th>
<th>Sanction 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>4.57</td>
<td>6.67</td>
<td>10.13</td>
<td>15.12</td>
</tr>
<tr>
<td>2022</td>
<td>4.53</td>
<td>6.21</td>
<td>10.95</td>
<td>15.30</td>
</tr>
<tr>
<td>2023</td>
<td>4.78</td>
<td>6.48</td>
<td>11.29</td>
<td>15.26</td>
</tr>
<tr>
<td>2024</td>
<td>4.74</td>
<td>6.27</td>
<td>11.46</td>
<td>15.25</td>
</tr>
<tr>
<td>2025</td>
<td>4.71</td>
<td>6.33</td>
<td>11.59</td>
<td>15.46</td>
</tr>
<tr>
<td>2030</td>
<td>5.09</td>
<td>6.21</td>
<td>12.58</td>
<td>15.84</td>
</tr>
<tr>
<td>2035</td>
<td>5.51</td>
<td>6.63</td>
<td>13.86</td>
<td>17.09</td>
</tr>
<tr>
<td>2040</td>
<td>5.63</td>
<td>7.92</td>
<td>15.67</td>
<td>18.78</td>
</tr>
</tbody>
</table>

Current wholesale and domestic rates are 7.8 cents/kWh and 11.9 cents/kWh (excluding HST), respectively.
## Electricity Rate Comparison (cents kWh)

<table>
<thead>
<tr>
<th>Province</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quebec</td>
<td>7.19</td>
</tr>
<tr>
<td>Manitoba</td>
<td>8.11</td>
</tr>
<tr>
<td>British Columbia</td>
<td>10.29</td>
</tr>
<tr>
<td>NL Island Domestic Rate</td>
<td>11.93*</td>
</tr>
<tr>
<td>Alberta</td>
<td>11.66</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>12.30</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>14.37</td>
</tr>
<tr>
<td>Ontario</td>
<td>14.86</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>15.62</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>16.03</td>
</tr>
</tbody>
</table>

*Current average domestic rate based on average consumption of 1,517 kWh before HST.

Note: Rates are taken from a Hydro Quebec survey and are based on April 1, 2015 rates without tax and average monthly consumption of 1,000 kWh (with the exception of the NL Island Domestic Rate).
Provincial Equity Requirements for MF Project to 2020

<table>
<thead>
<tr>
<th>Year</th>
<th>Requirement (in $ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior</td>
<td>$1,584</td>
</tr>
<tr>
<td>2016/17</td>
<td>$1,354</td>
</tr>
<tr>
<td>2017/18</td>
<td>$1,240</td>
</tr>
<tr>
<td>2018/19</td>
<td>$815</td>
</tr>
<tr>
<td>2019/20</td>
<td>$612</td>
</tr>
</tbody>
</table>
Holyrood Generating Station

When Muskra Falls was sanctioned, the Holyrood Generating Station had a total generating capacity of 490 MW and generated between 15% - 20% of the island's electricity supply. At peak production, in the winter months, it would burn 18,000 barrels of fuel per day. In 2011, this facility cost $135 Million in fuel alone. In addition to the cost associated with maintaining the aging Holyrood Generating Station, it is a large emitter of Greenhouse Gases and at some future date may be subject to carbon tax for these emissions thus adding additional operation costs. Though the decommissioning of Holyrood and replacing the energy with power generated at Muskra Falls, the Board of Nalcor and the Government of NL projected a financial, environmental, and regulatory benefit to the project.

Q5: Please provide data on the current status of the Holyrood Generating Station. In specific, the current annual generating capacity, specific cost of current and future capital upgrades in accordance with the projected life cycle of the facility, the annual operational costs of the station, and the date of decommissioning the facility.

A5: Current annual generating capacity:

AMEC was engaged in August 2016 to analyze Holyrood unit inspection data through the summer and refine the unit capacity ratings. The outcome of this review resulted in Units 1 & 2 being rated to 170 MW after their maintenance outages, while Unit 3 was reduced 10% to 135MW. This totals 475 MW from the Holyrood plant Inspection work on unit 3 continues this fall to provide additional data and possibly increase its rating.

For annual energy available from Holyrood the ESRA Final Report identifies 2420 GWh per year. The 2420 GWh per year outlined in the ESRA Final Report is notably higher than the forecast production requirements as documented in the 2017 Capital Budget Application (see table below).

Table 1: Holyrood Operating Requirements 2016-2021
Specific cost of current and future capital upgrades in accordance with the projected life cycle of the facility:

Capital budget requirements are as outlined below for the 2017 to 2021 period. Projects planned for the pending five years focus on assessments and assets critical to sustain production and site operations as long as required, and those assets with life extending beyond the end of generation, they include:

- $5.0 million for the installation of a plant heating system;
- $4.6 million to replace Stage II Electrical Distribution Equipment; and
- $7.1 million for the rewind of Unit 3 generator stator.

Planned expenditures for the five year period total $46.5 million.

2017: $10,166,200
2018: $8,636,700
2019: $11,190,300
2020: $14,152,100
2021: $2,334,800

Annual operational costs of the station:
Average operating costs for the Holyrood Thermal Generating Station are typically $22M per year. 2015 annual operating costs totaled $30,542,583 (with increases mostly attributable to increased work scope from equipment inspections, repairs and reliability improvement analysis
to support ongoing production and winter readiness plans, as well as leasing costs for black start diesels).

The operating forecast for 2016 is $22,755,427.

The date of decommissioning the facility: Please see question 6.

Q6: Given the delays in the Muskrat Falls project schedule, what is the long term plan for Holyrood, including timelines?

A6: Generation from the Holyrood Thermal Plant will start to reduce once the high voltage direct current interconnection is complete and proven. The units at Holyrood will start to be placed in standby as the systems are proven to be ready for reliable service. The timing of the final decision on the shutdown and repurposing of the Holyrood plant will be made once commissioning of all infrastructure is completed and reliable service has been demonstrated. This is anticipated to occur in the 2020/2021 timeframe.

Muskrat Falls Project Capital Costs

In June 2016, Nalcor provided new timelines and cost estimates for the entire project. These costs as compared to the project estimates at the time of sanctioning are outlined in the following table:

<table>
<thead>
<tr>
<th>Component</th>
<th>Cost at Sanction</th>
<th>Cost - June 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Project</td>
<td>$7.4 Billion</td>
<td>$11.4 Billion</td>
</tr>
<tr>
<td>Labrador Transmission Assets</td>
<td>$692 Million</td>
<td>$878 Million</td>
</tr>
<tr>
<td>Labrador - Island Link</td>
<td>$2.6 Billion</td>
<td>$3.4 Billion</td>
</tr>
<tr>
<td>Muskrat Falls Generation</td>
<td>$2.9 Billion</td>
<td>$4.8 Billion</td>
</tr>
<tr>
<td>Station</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financing and Other Costs</td>
<td>$1.2 Billion</td>
<td>$2.3 Billion</td>
</tr>
</tbody>
</table>

Several updates on the cost and schedule have been given over the past four years.

Q7: Please provide what exactly represents the additional cost as contained in each category above when comparing the cost at sanction to what was released in June 2016.

A7: EY’s April 2016 interim review of Muskrat Falls project cost, schedule and related risk highlighted key factors relating to increased costs, including:

- the Muskrat Falls generation contract for powerhouse and intake area civil construction was significantly behind schedule which will have material impacts on cost and schedule;
- the contingency level was low for current stage of completion of the project; and
- there was a risk of multiple-month delay to completion of the HVdc transmission line due to delivery challenges and risks associated with the remaining scope.
EY’s interim report is posted online at http://www.gov.nl.ca/MFoversight/pdf/EYCostScheduleRisks_Apr.pdf

The June 2016 project update was reflective of EY’s findings, with the following primary factors influencing cost changes since 2012:

- Contractor performance and additional project management execution primarily at the Muskrat Falls generating site;
- Construction design enhancements/ adjustments to various generation and transmission components to ensure optimal design, efficiency and long-term reliability;
- Competitive Market factors (e.g. increasingly competitive labour market forces which have influenced labour availability and impacted contractor bids. These labour market realities are not unique to the Muskrat Falls Project but have affected the construction industry overall).

Q8: Please provide the detailed assumptions, calculations, and rationales that the June 2016 cost is based upon.

A8: The detailed assumptions and calculations for the June 2016 cost estimate of $9.1 billion is commercially-sensitive information. Information on the capital and financial costs are outlined in the June 24, 2016 Muskrat Falls technical briefing presentation in A4 above.

Q9: Does the estimated change in financing and other costs include or exclude the possibility of additional loan guarantee by the Federal government?

A9: The June 2016 estimate excludes any benefits that would be achieved from an enhanced Federal Loan Guarantee.

Q10: What is the current productivity level of Astaldi regarding the placement of concrete in the generating facility and other aspects over the last quarter?

A10: The following table provides the volume of concrete placed by Astaldi in 2016 and cumulative to date.

<table>
<thead>
<tr>
<th>Month</th>
<th>Concrete Placed per Month (m³)</th>
<th>Cumulative Concrete Placed (m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-2016</td>
<td>0</td>
<td>150,248</td>
</tr>
<tr>
<td>Feb-2016</td>
<td>0</td>
<td>150,248</td>
</tr>
<tr>
<td>March-2016</td>
<td>5,136</td>
<td>155,384</td>
</tr>
<tr>
<td>April-2016</td>
<td>8,621</td>
<td>164,005</td>
</tr>
<tr>
<td>May-2016</td>
<td>16,114</td>
<td>180,119</td>
</tr>
<tr>
<td>June-2016</td>
<td>9,937</td>
<td>190,056</td>
</tr>
<tr>
<td>July-2016</td>
<td>12,582</td>
<td>202,168</td>
</tr>
<tr>
<td>Aug-2016</td>
<td>14,205</td>
<td>216,843</td>
</tr>
</tbody>
</table>
Q11: Please provide Information regarding the volume of concrete placed, by month, for the last year for Astaldi, and the placement targets, by month, for the future of the project until completion.


In the best interest of the Muskrat Falls Project and the province’s investment in this development, Nalcor Energy recently negotiated a bridge agreement with Astaldi within 2016. This agreement lays out firm production targets, expectations of the contractor, and financial incentives over the next several months to continue construction progress on the powerhouse and intake at Muskrat Falls. The financial terms of the agreement have been reflected in the June 2016 capital cost forecast for the Muskrat Falls Project. Nalcor is continuing to meet with and hold discussions with Astaldi in an effort to negotiate a final commercial agreement by the end of 2016 for completion of their full work scope through project completion.

This bridge agreement is a positive step toward reaching a final agreement that will see the continued progress of work by Astaldi in the powerhouse and intake at Muskrat Falls. As long as the contractor meets our performance expectations, we are willing to work with Astaldi and continue negotiations. LCP is focused on achieving the best plan forward for the completion of construction on the powerhouse and intakes at Muskrat Falls.

Nalcor is continuing to hold discussions with Astaldi in an effort to negotiate a final commercial agreement by the end of 2016 for completion of their full work scope. While these negotiations continue, details of the bridge agreement, including production targets for Astaldi, will remain confidential.

Relationship with the Federal Government
In December 2012, the Provincial and Federal Governments signed a loan guarantee agreement. This loan guarantee, provided by the Federal Government, would cover the project cost of $6.3 billion worth of borrowing thus allowing a savings of approximately $1 billion in debt servicing related costs.

Q12: Has the federal government been approached to provide an additional loan guarantee? If so, what amount has been requested and what is the estimated savings this would achieve on the financing costs. Are these reduced financing costs included in the new project estimates accounted In June 2016?

A12: The Provincial Government has approached the Federal Government regarding an enhanced federal loan guarantee for the Muskrat Falls Project. Our discussions are ongoing and we look forward to providing full details when we conclude our discussions.

Borrowing
On June 24, 2016 as a part of the Muskrat Falls project update, Nalcor released the Provincial Equity Requirements for the project up to, and including, 2019/2020. These

Regarding this required equity, the Finance Minister said "I can assure people that the announcement on Friday (June 24) by Mr. Marshall certainly is concerning from the projects prospective but from the budget and the treasury's perspective, we had made certain assumptions in April and I feel fairly confident that those assumptions are in line with what Mr. Marshall announced on Friday (June 24) and we will continue to monitor that."

Q13: Please provide the detailed April budget assumptions that the Finance Minister referenced above and used to calculate the borrowing requirements contained in the 7 year Budget 2016 outlook as related to the Muskrat Falls project?

A13: The Borrowing assumptions relating to the Muskrat Falls Project for borrowing purposes were the Equity requests from Nalcor, summarized as follows:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Borrowing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Nalcor Equity Request</td>
<td>1,313.0</td>
<td>558.0</td>
<td>111.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Additionally, based on discussions with Nalcor, with respect to the status of their Quantitative Risk Assessment which was still ongoing at that time, the following "Prudence" adjustments were added to the borrowing program:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Borrowing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Prudence Contingency</td>
<td>350.0</td>
<td>535.0</td>
<td>535.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Consequently, total borrowings available to support the Muskrat Falls project that are reflected in the seven (7) year forecast are as follows:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nalcor Equity Budget</strong></td>
<td>1,313.0</td>
<td>558.0</td>
<td>111.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Borrowing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Prudence Contingency</td>
<td>350.0</td>
<td>535.0</td>
<td>535.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total available in Budget</strong></td>
<td>1,663.0</td>
<td>1,093.0</td>
<td>646.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Q14: Please provide the amounts budgeted in each fiscal year, in the current government's 7 year forecast released as a part of Budget 2016, for capital investment and or financing of any borrowing into the Muskrat Falls project?

A14: The amounts budgeted in each fiscal year relating to Nalcor are as follows:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dividends</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-(Equity Contribution)</td>
<td>(1,313.0)</td>
<td>(558.0)</td>
<td>(111.0)</td>
<td>34.0</td>
<td>481.0</td>
<td>501.0</td>
</tr>
</tbody>
</table>
Ratepayers: The Cost of Electricity

According to Scotiabank's "Fiscal Pulse: Muskrat Falls Project Update" as released on June 28, 2016, domestic electric rates are estimated to be 21.4 cents per kilowatt hour in 2021. This is about 6.3 cents per hour more than projected when Muskrat Falls was sanctioned.

In November 2012, the Department of Natural Resources stated that without the development of Muskrat Falls, rates would increase by 38% between 2016 and 2030. This was attributed to the dependency on oil based products in long term energy consumption over the life cycle of Muskrat Falls. This report also stated that through developing Muskrat Falls, the cost of power would only increase by 18% over the same time period.

Q15: Is Nalcor and the Department of Natural Resources in agreement with this estimated cost per kilowatt hour?

A15: As outlined above in A4 June 24, 2016 Muskrat Falls Technical Briefing, slide 13 of the technical briefing presentation on June 24, 2016, the estimated domestic electricity rate in 2021 is 21.4 cents/kWh before HST.

Q16: What is the updated cost estimate for residential energy rates from 2017 – 2030? What assumptions and information is being used to calculate this cost?

A16: Please see below for estimated domestic electricity rates (excluding HST) from 2017-2030. These rates are calculated based on the June 24, 2016 cost estimate for the Muskrat Falls project of $9.1 billion ($11.4 billion including financing and other costs) and the Island Interconnected load forecast outlined on slide 10 in the technical briefing presentation. These rates are unmitigated and therefore are not reduced by Muskrat Falls export sales or any other potential mitigation measure.

<table>
<thead>
<tr>
<th>Domestic Retail Rate</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity rate (excluding HST)</td>
<td>12.2</td>
<td>12.1</td>
<td>12.1</td>
<td>12.1</td>
<td>12.1</td>
<td>12.1</td>
<td>12.1</td>
<td>12.1</td>
<td>12.1</td>
<td>12.1</td>
<td>12.1</td>
<td>12.1</td>
<td>12.1</td>
<td>12.1</td>
</tr>
</tbody>
</table>

Q17: What efforts are being undertaken to ensure that electricity is affordable for the ratepayers of the province?

This government is committed to controlling project costs and ensuring all the necessary steps are taken to identify and mitigate any remaining engineering and construction risks as the project proceeds. In addition, we have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power; and we have directed Mr. Marshall to identify other opportunities to bring rates closer to those predicted at project sanction.

On June 24, 2016, Nalcor CEO, Stan Marshall provided an update on Muskrat Falls Project. During this update, Mr. Marshall indicated he would focus on a number of options over the next four years to maximize the benefit and reduce the cost of the Muskrat Falls Project. Mr. Marshall highlighted options including exploring revenue options, the business model, business
relationships, resource utilization, and the potential for a larger loan guarantee from the federal government to reduce borrowing costs.

Excess Energy
In the fall of 2015, it was suggested by the then CEO of Nalcor in a report to government that there was the potential for $3.3 Billion in electricity export revenue that was not counted in the project's finances.

Q18: What is the Department of Natural Resources' and Nalcor's current viewpoint regarding the export of excess power? How much power is expected to be exported over the next 35 years and at what rates? What will be both the cost and revenue from the export of excess energy?

A18: We are committed to maximizing the value of the province's energy assets for domestic use and for export. Nalcor actively markets and sells our available excess energy to external customers via spot markets. The attachment represents the current forecast for surplus energy and outlook for electricity prices. We also continue to explore other potential options to export Newfoundland and Labrador's surplus electricity, and interconnection to the North American grid will open up additional opportunities.

Please refer to A18 Forecasted Excess Energy below.
## A18 Forecasted Excess Energy

<table>
<thead>
<tr>
<th>Total</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
<th>2028</th>
<th>2029</th>
<th>2030</th>
<th>2031</th>
<th>2032</th>
<th>2033</th>
<th>2034</th>
<th>2035</th>
<th>2036</th>
<th>2037</th>
<th>2038</th>
<th>2039</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Includes market fall &amp; retention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Export Sales</td>
<td>151</td>
<td>129</td>
<td>123</td>
<td>119</td>
<td>123</td>
<td>143</td>
<td>158</td>
<td>167</td>
<td>172</td>
<td>168</td>
<td>169</td>
<td>172</td>
<td>177</td>
<td>179</td>
<td>183</td>
<td>188</td>
<td>183</td>
<td>188</td>
<td>188</td>
<td>188</td>
<td></td>
</tr>
<tr>
<td>Net Revenue ($ million)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Q19: Has the total net revenue from the sale of excess energy been factored into the project's finances? Please demonstrate where this is factored in and the impact on the cost of the project and domestic power rates in this province.

A19: No, the revenue from sales of energy in excess of Newfoundland and Labrador Hydro's base block entitlement (under Schedule 2 of the Power Purchase Agreement) was not factored into the estimated domestic electricity rates released on June 24, 2016 or the project cost update of $9.1 billion.

Hydro Quebec

Q20: Is the current government exploring the option of selling excess energy through Hydro Quebec? Have any negotiations commenced with Hydro Quebec?

A20: Nalcor has been already selling excess energy in Labrador using Hydro Quebec's transmission system for several years – this is not new. The company continues to explore opportunities with multiple customers to enhance the value of energy that is surplus to the province’s needs.

Our Government is always open to conversations with the Government of Quebec about matters of interest to both provinces as we currently do at intergovernmental forums; Quebec has signaled to us that they would like to have a better relationship. We are certainly open to that.

Q21: Have any officials or representatives of Nalcor, the Department of Natural Resources, the Department of Finance, or the Premier's Office engaged in any discussion regarding the sale or disposal of NL Hydro assets?

A21: No officials or representatives of the present Government have engaged in discussions to sell or dispose of NL Hydro assets.

EY Review of Project Cost, Schedule and Related Risk

On April 5, 2016 Ernst & Young submitted an interim report to the Muskrat Falls Oversight Committee. At this time both Ernst & Young and the Minister of Natural Resources indicated that work would continue and that a final report would follow.

Q22: Has a final report been received by the Department of Natural Resources or by the Muskrat Falls Oversight Committee? If so, please provide a copy of this report.

Q23: What was the final cost of the EY review, inclusive of the interim review, final review and any other associated work surrounding the oversight of the Muskrat Falls project?

A22/A23: The April 8, 2016 EY review of project costs schedule and related risks interim report was received and made public by government on April 12, 2016. The final EY report has not been received by the Department of Natural Resources or the Oversight Committee at this time.
Timing for completing the final report is contingent upon conclusion of a final agreement between Nalcor and contractor Astaldi which is expected later this year.

Since the establishment of the Oversight Committee in 2014, costs for EY services have totaled $2,166,535.20 + HST. This includes: the July 2014 Review of Government Protocols to Oversee the Muskrat Falls Project report, the October 2015 Review of Muskrat Falls Project Cost and Schedule Management Processes and Controls report, and the April 2016 Review of Project Cost Schedule and Related Risks Interim Report and other associated work.
This appears to be the most recent briefing note in TRIM on the issue. It gives a high-level overview of the results of the two studies (wind and small hydro). I will also get a copy of the presentation that Hydro used to brief the Minister (have left a voice mail for Dawn Dalley).
Meeting Note
Department of Natural Resources
Combined Councils of Labrador and Minister of Natural Resources
June 8, 2016, time?
Location? Natural Resources Building

Attendees:
Honourable Siobhan Coady, Minister of the Department of Natural Resources
Charles Bown, Deputy Minister, Department of Natural Resources

Didier Naulieu - President
Nate Moore - VP Straits
Fred Goudie - VP South
Marjorie Flowers - VP North
Margaret Rumbolt - Executive Director
Sheila Cubbs - Secretary/Treasurer

Purpose of Meeting:
- The meeting was requested by the Combined Councils of Labrador (CCL) to discuss issues of concern, including: (1) Update on Oil and Gas exploration offshore Labrador; (2) Update on Coastal Labrador Alternative Energy Studies and long term plans to address energy needs in diesel communities; (3) Update on Mineral Exploration in Labrador; (4) Update on the Foxfire Rare Earth Site in Southeast Labrador; and (5) and update on the use of infrastructure built by Nalcor for the Muskrat Falls Transmission Line after the project is completed.

Background

Agenda item #2 - The CCL has requested an update on the status of Coastal Labrador Alternative Energy Studies and long term plans for energy supply in diesel communities.

Analysis

- There are currently 2,600 customers in 27 isolated Labrador coastal communities served by Newfoundland and Labrador Hydro's (NLH) 15 diesel generation plants.

- Government is exploring the potential for wind and small hydro to offset diesel consumption in isolated Labrador communities as detailed in the wind and small hydro sections below.

- The studies to date indicate that wind and small hydro would not lower electricity rates for coastal Labrador customers. These customers presently receive a subsidy that provides them with regulated rates based on the Island interconnected cost of service rather than the isolated diesel cost of service. Wind or hydro generation would lower the isolated cost of service, but would continue to exceed the Island interconnected cost of service. Reducing the isolated cost of service would reduce the amount that interconnected Island and Labrador customer pay to subsidize isolated system customers.

- NLH's 2015 forecast cost of service showed that residential customers in isolated Labrador communities pay approximately 9% of the cost of the electricity they use, with approximately 84% paid by NP and Labrador interconnected customers via the "Rural Deficit" ratepayer
subsidy. The remaining 7% was paid by Government’s Northern Strategic Plan rebate (NSP).

- In 2014, Government asked NLH to estimate the cost of transmitting power from the Labrador Interconnected System to the coastal communities. NLH proposed two transmission lines as the solution: one for the northern communities and one for the southern communities. On February 17, 2016, NLH provided the following updated cost estimate, which NLH categorizes as a Class 5 estimate (i.e. -20% to +40% accuracy):

<table>
<thead>
<tr>
<th>System</th>
<th>Communities</th>
<th>2016 Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labrador Northern Interconnect</td>
<td>Nain, Natashish, Hopedale, Postville, Makkovik and Rigolet, and the Voisey’s Bay mine</td>
<td>$1,284 M</td>
</tr>
<tr>
<td>Labrador Southern Interconnection</td>
<td>Cartwright, Paradise River, Black Tickle, Port Hope Simpson, Charlottetown, Normal Bay, Williams Harbour, St. Lewis, Mary’s Harbour and L’Anse au Loup</td>
<td>$794 M</td>
</tr>
<tr>
<td>Total Cost</td>
<td></td>
<td>$2,078 M</td>
</tr>
</tbody>
</table>

- Recent Federal Government announcements indicate funding support may be available for diesel powered communities. Indigenous and Northern Affairs Canada will have $10.7 million over two years, starting in 2016–17, to implement renewable energy projects. NLH is not eligible for this funding; however, there may be opportunities for groups in Labrador to avail of this funding if they are interested in developing their wind potential.

Wind

- In 2009, Government provided $250,000 to NLH for the Coastal Labrador Alternative Energy Study. Hatch Ltd. completed phase one of this study in 2010 which provided information on the region’s resource potential and identified wind and small hydro as areas for further examination. Five coastal Labrador communities were identified for further wind energy analysis: Nain, Hopedale, Makkovik, Cartwright and L’Anse-au-Loup.

- Four of these five communities rely exclusively on diesel generators. The fifth community, L’Anse au Loup, relies on Hydro-Quebec’s (HQ) Lac Robertson hydroelectric station for approximately 90% of its electricity, with diesel generation as the firm/backup power.

- In 2011, Government provided $877,000 to NLH for a wind monitoring program to measure wind resources and determine the preliminary costs of using wind to offset diesel generation in the five communities. NLH commissioned Hatch to conduct the program. It began in January 2011 and the final report was completed in December 2015. The report has not been released to the public.

- Satisfactory wind conditions were found in all five communities. Based on system modeling and preliminary economic analysis, Hatch concluded that wind turbines could potentially reduce diesel consumption and lower overall energy costs in all communities except L’Anse au Loup, as its hydroelectricity supply costs are significantly lower than the diesel systems.

- On April 11, 2016, NLH met with NR officials to discuss next steps relating to the report.
• NL Hydro has also noted that studies on construction logistics and community electric grid stability were not included in Hatch's report and will be required to finalize project feasibility and cost estimates.

Small Hydro

• In March 2013, Hatch submitted to NL Hydro the report, "Feasibility Study of the Hydraulic Potential of Coastal Labrador". NL Hydro contracted Hatch to complete this study with $2.5 million in 2011 to carry out the study. The report has not been released to the public.

• The report compares the economics of four small run of river (ROR) hydro sites serving coastal Labrador towns, with one serving each of the following towns: Hopedale, Makkovik, and the combined towns of Charlottetown (CHT), Port Hope Simpson (PHS) and Mary's Harbour (MSH). The fourth site was an alternative to serving CHT, PHS and MSH.

• Hatch judged one site on the St. Lewis River to be the most economically viable of the stand-alone ROR sites as it promised to provide greatest savings of $51.2M and satisfy the load forecast for the combined communities of CHT, PHS and MSH.

• If further environmental screening eliminated the St. Lewis River site as an option, the next most economical site for development would be on the Alexis River, which promised $21.6M in savings and would serve CHT, PHS and MSH.

• A modified St. Lewis River ROR configuration combined with a storage configuration at Gilbert River would provide the best overall value for ratepayers. However, this option and the alternative (Alexis River plus Gilbert River storage) include Gilbert River development upstream from Fisheries and Oceans Canada's Gilbert Bay Marine Protected Area (MPA).

• Three years have passed since the hydro study was finalized, thus it will be necessary to determine if any updates are required to validate the findings for 2016.

Potential Speaking Points

• NR and NLH have been studying the potential of integrating alternative energy sources in remote coastal Labrador communities as a way to reduce diesel usage. Government has provided $3.5M to NLH since 2008 to determine if alternative energy sources, including wind and hydro, can be used to reduce generation costs in remote communities.

• The coastal wind monitoring portion of the work is now complete and we have a greater understanding of the wind resources in the five communities examined in this study (Nain, Hopedale, Makkovik, Cartwright and L'Anse-au-Loup).
• I welcome working with individual coastal Labrador communities, the Government of Nunatsiavut and the Combined Councils of Labrador to identify the best opportunities for sustainable energy development in the region.

• As outlined in my mandate letter from Premier Ball, this government will seek out opportunities to develop wind and small scale hydro, with priority given to communities that are isolated from the primary power grid, such as coastal Labrador communities.

• My department is also part of the Pan-Canadian Task Force on Reducing Diesel Use in Off-grid Communities. We see this task force as an opportunity to build upon our existing studies and identify new approaches that could assist NL isolated diesel communities as we move forward.

• As always, the protection of ratepayers is of utmost importance and we will continue to explore opportunities that are the right fit for our province.

Prepared/Approved by: C. Boland, C. Snook/
Ministerial Approval:

June 7, 2016
Good day all.

As Jeff mentioned in today's meeting, attached is the chart we developed for the DM committee regarding highlighted issues.

Richard

Notes:
1) Pages 2-17 have been redacted in full under sections 34(1)(a)(i), 34(1)(b) and 35(1)(f).
2) Pages 18-37 have been redacted in full under sections 34(1)(a)(i) and 34(1)(b).
3) This bundle of records is 37 pages in total.
From: Quinton, Diana
Sent: Monday, November 07, 2016 5:01 PM
To: Parsons, Walter
Cc: Clarke, Lesley
Subject: Topics - House of Assembly

Hi Walter:

We are in the process of preparing messages for topics that may come up in the House of Assembly. Here are the ones we have identified for Nalcor, the Muskrat Falls Project, NL Hydro and Energy. Please add to the list as necessary.

Thanks,
Diana

Nalcor

2. Hydro Quebec – nature of relationship
3. The Auditor General’s Report on CEO Severance
4. Use of personal email
5. Nalcor Board of Directors
6. Declaratory judgment
7. Good Faith Case

The Muskrat Falls Project

8. EY Final Report - Status
9. Oversight Committee Report – Status
10. June 24th Update – Evidence/Supporting Documents Regarding Assumptions
11. Federal loan guarantee
12. Estimated power rates and plans to mitigate
13. Details of discussions with Astaldi and status of work completed to date
14. Borrowing requirements for the project
15. Plans to export power
16. North Spur
17. Timing of Response to Official Opposition letter

NL Hydro

18. Winter Readiness
19. Capital Expenditures
20. Long term plan for Holyrood given delays in the Muskrat Falls project schedule.
21. GRA Status (decision expected late fall)
22. Rate Subsidization Plan Timelines

Energy Policy
23. Long-term Plan for Energy Policy
24. Electricity Restructuring
25. Reducing the use of diesel in communities isolated from the primary power grid
26. Net Metering - Status
27. Biogas Status
Marshall, Andrea

From: Loder, Jeff
Sent: Thursday, November 10, 2016 8:38 AM
To: Parsons, Walter

Subject: 
Attachments: 
Importance: High 

Walter,

was sent to NR but wanted to make sure you have it.

Jeff

From: Mercer, Greg
Sent: Saturday, July 16, 2016 7:10 PM
To: Loder, Jeff; Genge, Daryl; Bown, Charles W.; Dutton, Sean; Dooling, Genevieve (AES); Miles, Peter
Cc: Ball, Dwight; Mitchelmore, Christopher; Coady, Siobhan
Subject: Fw: 
Importance: High

Hi all,

Please find attached the AIT Please review and we can arrange for a further discussion on this on Monday.

Cheers,

Greg

Sent from my BlackBerry 10 smartphone on the Bell network.

From: Dufresne, Jean-Louis <Jean-Louis.Dufresne@mce.gouv.qc.ca>
Sent: Saturday, July 16, 2016 5:07 PM
To: Mercer, Greg
Subject: 

Québec

(Please see below for English)

Bonjour Greg
Je suis disponible pour en discuter au besoin à votre convenance.

Je vous remercie.
JLD
Cell : S. 40(1)

----------------------------------------------

Hello Greg

Please to meet you via e-mail. I'am Jean-Louis Dufresne, Chief of staff du Premier ministre du Québec, Philippe Couillard.
I would be happy to discuss the matter further at your convenience.

Je vous remercie.

JLD

Cell: [redacted]  

Avis important

Ce courriel est à usage restreint. S'il ne vous est pas destiné, veuillez, s.v.p. le détruire immédiatement et en informer l'expéditeur.

P Devez-vous vraiment imprimer ce courriel? Pensons à l'environnement!

Note: Pages 15-18 have been redacted in full under sections 34(1)(a)(i) and 34(1)(b).
Fyi... NLH response to HQ request re Lanse au Loup and Lac Robertson...

Corey Snook  
Director of Electricity and Alternative Energy (Acting) Department of Natural Resources Government of Newfoundland and Labrador  
St. John's, NL, Canada  
A1B 4J6  
coreysnook@gov.nl.ca  
O: 709.729.3131 / M: 709.725.8186

-----Original Message-----
From: BMoulton@nlh.nl.ca [mailto:BMoulton@nlh.nl.ca]  
Sent: Thursday, November 10, 2016 10:01 AM  
To: Roussy, Marie-France  
Cc: NormanBungay@nlh.nl.ca  
Subject: Fw: TR: Labrador - L'anse-au-loup

Hi M. Roussy,

I am with Hydro's Rural Planning department. Feel free to contact me with any questions that you may have.

1)" First your load forecast"

I will forward a forecast for the L'Anse au Loup system next week.

If you have our forecast, would you be able to provide us a forecast of available surplus energy from Lac Robertson.

2)"Second is the possibility to import energy from you when we have problems on our network.
For this topic, I think it's a matter of network protection."

This has been discussed and looked at before. From a technical point of view I think that you are correct, it is a matter of network protection and metering.
The other issue in setting this up "officially" is having to develop a contract between us and yourselves to account for the sale of energy from NL to PQ and from PQ to NL.
We can discuss this with our Operations and Engineering people.
Would you check with your people to see whether there would be issues with sending energy from NL to HQ?

3)"The last is the possibility to change the meter reading to use the distance reading capacity."
I will have to discuss this with our Operations people to see if there are any issues.

Bob

Bob Moulton, P. Eng.
Manager - Generation & Rural Planning
Newfoundland and Labrador Hydro - a Nalcor Energy company
t. 709 737-1474 c. 709 693-6596
e. bobmoulton@nlh.nl.ca w. www.nlhydro.com

----- Forwarded by Norman Bungay/NLHydro on 10/21/2016 11:12 AM -----

From: "Roussy, Marie-France" <Roussy.Marie-France@hydro.qc.ca>
To: "NormanBungay@nlh.nl.ca" <NormanBungay@nlh.nl.ca>
Cc: "Monger, Ronald" <Monger.Ronald@hydro.qc.ca>, "Labbe, Patrick"
    <Labbe.Patrick@hydro.qc.ca>
Date: 10/21/2016 10:30 AM
Subject: TR: Labrador - L'anse-au-loup

Hi M. Bungay,

I'm looking for someone in your organisation to discuss about our connection with your Labrador installations in L'anse aux loups.
I have three topics you will find bellow.
I tried to reach M. Simms without success.

Regards

ht Marie-France Roussy ing.
tp Ing. Installations LRO/LAT/BSN/VFO/AUT
/: Chargée d'équipe
/w Planification et projets majeurs
ww Tél Interne : 418-490-4428
.h
yd
ro
qu
eb
ec
De : Roussy, Marie-France
Envoyé : 17 octobre 2016 13:29
À : 'CorySimms@nih.nl.ca'
Cc : Monger, Ronald; Labbe, Patrick
Objet : TR: Labrador - L'anse-au-loup

Hi, Did you receive my email

ht Marie-France Roussy ing.
tp Ing. Installations LRO/LAT/BSN/VFO/AUT
:/ Chargée d'équipe
/w Planification et projets majeurs
ww Tél interne : 418-490-4428
.h
.yd
.ro
.qu
.eb
.ec
.c
.om
./i
.ma
.ge
.s/
.pi
.xe
.l.
.gi
.f
Hi M. Simms,

I'm the planning engineer for the Lac Robertson installations.
I have some questions for our connection with your Labrador installations.
We would like to talk with NLH about three topics:
First your load forcast (see mail below); Second is the possibility to import energy from you when we have problems on our network.
For this topic, I think it's a matter of network protection.
The last is the possibility to change the meter reading to use the distance reading capacity.

Let me know the persons of your organisation who are concerned with those topics. I can arrange a conference call on the subject.

Regards

De : Roussy, Marie-France
Envoyé : 3 octobre 2016 10:43
À : 'CorySimms@nlh.nl.ca'
Cc : Monger, Ronald; Labbe, Patrick
Objet : TR: Labrador - L'anse-au-loup

Hi M. Simms,

Did you receive my email?

Regards

ht Marie-France Roussy ing.
tp Ing. Installations LRO/LAT/BSN/VFO/AUT
/: Chargée d’équioe
/w Planification et projets majeurs
ww Tél interne : 418-490-4428
.h
.yd
.ro
.qu
.eb
.ec
.c
De : Roussy, Marie-France  
Envoyé : 19 mai 2016 12:55  
À : 'CorySimms@nlh.nl.ca'  
Cc : Monger, Ronald  
Objet : Labrador - L'anse-au-loup

Hi M. Simms,

Ronald Monger gives me your name.
I'm the planning engineer for the Lac Robertson installations I am looking for the load forecast for your installation we feed in Labrador.
Can you provide to me a load forecast for the power and the energy by month for the first year and annually for the next years.

Regards

ht Marie-France Roussy ing.  
tp Ing. Installations LRO/LAT/BSN/VFO/AUT  
:// Chargée d'équioe  
/\ Planification et projets majeurs  
\w Hydro-Québec  
\.h Tél interne : 418-490-4428  
yd  
ro  
qu  
eb  
ec  
\c  
om  
/\  
ma  
ge  
s/  
pi
Marshall, Andrea

From: Snook, Corey  
Sent: Monday, November 14, 2016 3:04 PM  
To: Parsons, Walter  
Cc: Comibden, Leanne  
Subject: OCOR-23938: Draft response from Minister Coady to [REDACTED] regarding Water Management Agreement and Decision of Quebec Superior Court  
Attachments: Draft response from Minister Coady to [REDACTED] regarding Water Management Agreement and Decision of Quebec Superior Court.DOCX; Draft response from Minister Coady to [REDACTED] regarding Water Management Agreement and Decision of Quebec Superior Court.trs

Walter,

Please see the attached revised response on the declaratory judgement case and water management.

- Corey

Corey Snook
Director of Electricity and Alternative Energy (Acting) Department of Natural Resources Government of Newfoundland and Labrador  
St. John's, NL, Canada A1B 4J6  
coreysnook@gov.nl.ca  
O: 709.729.3131 / M: 709.725.8186

------< HP TRIM Record Information ------>

Record Number: OCOR-23938  
Title: Draft response from Minister Coady to [REDACTED] regarding Water Management Agreement and Decision of Quebec Superior Court
Dear [Name],

**RE: Water Management Agreement and Decision of the Quebec Superior Court**

Thank you for your email correspondence to Premier Ball and me dated August 13, 2016, regarding the Muskrat Falls Project, the Water Management Agreement and the recent decision of the Quebec Superior Court relating to the Renewal Contract. As Minister of Natural Resources, I am pleased to respond to your questions and concerns.

First, with respect to your suggestion that the Muskrat Falls Project should be suspended until a full cost-benefit analysis is completed, the Project has been recently reviewed by Nalcor's new management team and by our Government; and we have determined that continuing with construction is necessary due to contractual requirements and supply obligations. As announced in June 2016, $6.7 billion has been spent or is contractually committed on the Muskrat Falls Project. In addition, under the terms of negotiated contracts between Emera and Nalcor, we have committed to supply power to Nova Scotia. Emera will pay 20 percent of the overall cost of the Muskrat Falls Project and the Maritime Link in exchange for 20 percent of the energy and capacity from the Muskrat Falls Project for 35 years.

You also noted in your correspondence that there has not been an Oversight Committee report since the reporting period ending December 31, 2015, and you inquired about our Government's commitment to opening the books on Muskrat Falls. The Muskrat Falls Oversight Committee has met six times in 2016 and the minutes are posted on Government's webpage. The Committee is currently reviewing the June 2016 costs and schedule update for the Muskrat Falls Project and will release its next report as soon as possible. We remain committed to opening the books and ensuring the Project is managed effectively, which is why our Government retained EY to conduct an independent review of the cost, schedule, and associated risks for the Project. EY will be able to complete its costing review once the contract negotiations are finalized between Nalcor and one of the project's lead contractors, Astaldi Canada. In the meantime, EY released its Interim Report in April 2016; and our Government has committed to taking action on all of EY's recommendations, including strengthening project governance and expanding oversight. In June 2016, Nalcor's CEO, Stan Marshall, announced changes to Nalcor's...
executive structure, including making Newfoundland and Labrador Hydro a separate business unit, dividing the Muskrat Falls Project into two separate components, and restructuring executive positions to strengthen financial oversight of the Muskrat Falls Project.

With respect to decision of the Quebec Superior Court in August 2016, the Declaratory Judgement relates specifically to the 1969 Power Contract and the Renewal Contract. Hydro-Québec’s stated purpose in its motion was to seek the Court’s interpretation of its rights to energy and capacity under the 1969 Power Contract and the Renewal Contract. The Water Management Agreement was not referenced in Hydro-Québec’s motion or in the Quebec Superior Court’s decision and was in no way challenged or addressed by Hydro-Québec during the proceedings. Consequently, the court did not address the effect, if any, that its ruling would have on the Water Management Agreement. CF(L)Co filed leave to appeal the decision with the Quebec Court of Appeal on September 7, 2016, which is anticipated could take up to 24 months to come to a conclusion. The appeal speaks only to the interpretation of the Renewal Contract and not the Water Management Agreement.

It is important to note that it is Government and Nalcor Energy’s position that Hydro-Québec’s rights and entitlement to power under the Renewal Contract are not diminished in any way by the Water Management Agreement. The Churchill River will be managed under the terms of this Agreement, which was established by Newfoundland and Labrador’s Board of Commissioners of Public Utilities pursuant to the Electrical Power Control Act, 1994. The Agreement optimizes production for facilities on the Churchill River while ensuring that no provisions of pre-existing power contracts involving Muskrat Falls or CF(L)Co, including the Churchill Falls Renewal Contract, are adversely affected. The Water Management Agreement is governed by, and will be administered in accordance with, Newfoundland and Labrador laws and is subject to the jurisdiction of the courts in Newfoundland and Labrador.

Thank you for sharing your concerns regarding these important issues.

Sincerely,

SIOBHAN COADY, MHA
St. John’s West
Minister

c. Honourable Dwight Ball, Premier
Marshall, Andrea

From: Quinton, Diana
Sent: Tuesday, November 15, 2016 6:40 PM
To: Coady, Siobhan; Bown, Charles W.; Parsons, Walter
Subject: Re: Press release: Quebec Government is considering reopening the Lower CF contract.


Sent from my BlackBerry 10 smartphone on the Bell network.

From: Coady, Siobhan
Sent: Tuesday, November 15, 2016 6:09 PM
To: Quinton, Diana; Bown, Charles W.; Parsons, Walter
Subject: Re: Press release: Quebec Government is considering reopening the Lower CF contract.

Nothing attached. Can you cut and paste into the email?

Sent from my BlackBerry

From: Quinton, Diana
Sent: Tuesday, November 15, 2016 5:50 PM
To: Coady, Siobhan; Bown, Charles W.; Parsons, Walter
Subject: Fw: Press release: Quebec Government is considering reopening the Lower CF contract.

Sent from my BlackBerry 10 smartphone on the Bell network.

From: DeanneFisher@nalcorenergy.com
Sent: Tuesday, November 15, 2016 5:44 PM
To: Quinton, Diana
Subject: Fwd: Press release: Quebec Government is considering reopening the Lower CF contract.

Sent from my iPhone

Begin forwarded message:

From: "Chris Kieley" <ChrisKieley@nalcorenergy.com>
Date: November 15, 2016 at 5:21:22 PM NST
To: "Peter Hickman" <PHickman@nalcorenergy.com>, "Deanne Fisher" <DeanneFisher@nalcorenergy.com>, "Michael Roberts" <MichaelRoberts@nalcorenergy.com>, "Jim Keating" <JKeating@nalcorenergy.com>
Potential copyright material

If you wish to obtain a copy please contact the ATIPP Office at (709) 729-7072 or atippoffice@gov.nl.ca.
From: Quinton, Diana
Sent: Wednesday, November 16, 2016 8:53 AM
To: Bown, Charles W.; Parsons, Walter
Subject: QA for today - needs some answers inserted
Attachments: Week one - November 16A.doc

Diana Quinton
Director of Communications
Natural Resources
Government of Newfoundland and Labrador
709-729-5282
Why did it take so long to reply to the August 1st letter?
- In the spirit of transparency and accountability, the department has responded to dozens of detailed questions asked by the Official Opposition regarding Nalcor and the Muskrat Falls Project.
- The research and analysis undertaken to answer these detailed questions is thorough and evidence-based.
- You are welcome.

Why do we continue to invest in Holyrood?
- On average, Holyrood produces between 15 and 25 percent of the island’s annual electricity generation and burns around 18,000 barrels of oil per day.
- Holyrood assists in meeting winter peak and overall island electricity requirements.
- Holyrood will provide generation until the Muskrat Falls project enters service and remain available for stand-by generation for a period of time until it is decommissioned as a generation plant.
- Holyrood Unit 3 will then provide transmission system voltage stability which does not require fuel consumption and can be switched back to full generating mode when needed.

What are the details of the additional federal loan guarantee?
- Government secured commitment from Canada to provide additional loan guarantee support for the Muskrat Falls Project, up to an additional $2.9 billion.
- Important financial support for the province as we get Muskrat Falls Project on track.
- Specific conditions will be negotiated with Canada in the near future.

Can the Province afford the equity without the additional federal loan guarantee?
The Province sought the enhanced FLG as part of its actions in addressing NL’s current fiscal challenges. The enhanced guarantee allows NL and the Muskrat Falls Project to leverage the Federal Government’s AAA credit rating, resulting in lower financing costs for the capital necessary to complete the project. In the absence of the enhanced guarantee, the Province would have had to fund the capital through its provincial borrowing program at higher rates. This would result in higher overall financing costs for the Province which would have further deteriorated the current fiscal situation and require further cost savings actions by the Province to address the differential.

What is the impact of the additional federal loan guarantee on rates?
The primary benefit of the enhanced Federal Loan Guarantee is to reduce the future borrowing requirements of the province. An important ancillary benefit is a reduction in cost to the island electricity rate payers. We continue to negotiate the final details of the enhanced FLG with the federal government.

How will rates be mitigated?
- We have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power.
- We must ensure reliability of power and we must keep rates as low as possible.

Will government use revenue from exports to mitigate rates?
- We have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power.
- We must ensure reliability of power and we must keep rates as low as possible.

What discussions are we having with HQ and the Government of Quebec?

Is government exploring the option of selling excess energy through Hydro Quebec? Have any negotiations commenced with Hydro Quebec?
- Neither the Government of Newfoundland and Labrador nor Nalcor Energy are involved in discussions with Hydro Quebec on the Muskrat Falls Project.

Is government or Nalcor engaged in any discussion regarding the sale or disposal of NL Hydro assets?
- No. Officials or representatives of the present Government have not engaged in discussions to sell or dispose of NL Hydro assets.
What is the status of the EY final report?
- Timing for completing the final report is contingent upon conclusion of a final agreement between Nalcor and contractor Astaldi which is expected by the end of this year.

How much have we spent to date on EY?

What impact did the recent shutdown of the Muskrat Falls Project have on costs?
- Nalcor doesn’t have an exact figure - had an impact on the project and in lost wages.
- Will be substantial cost and schedule impacts (in the hundreds of millions of dollars).
  (Mr. Marshall said during Q3 update that it may be 2-3 months, $2-300 m, won’t know more until the spring.)

What is the cost of requiring soil removal?
- We are working closely with Innu Nation, the Nunatsiavut Government, NunatuKavut Community Council and Nalcor to ensure the project addresses concerns regarding the health and well-being of the people of Labrador.
- An Independent Expert Advisory Committee (IEAC) will be established to seek an independent, evidence-based approach to determine and recommend options for mitigating human health concerns related to methylmercury throughout the reservoir as well as in the Lake Melville ecosystem.
- Mitigation measures will be realized through utilizing best available science that incorporates Indigenous Traditional Knowledge.

Do you disagree with Stan Marshall on soil removal?
- Mr. Marshall - renowned business leader; confident in the work he is doing at Nalcor.
- An Independent Expert Advisory Committee (IEAC) will be established to seek an independent, evidence-based approach to determine and recommend options for mitigating human health concerns related to methylmercury throughout the reservoir as well as in the Lake Melville ecosystem.
- Mitigation measures will be realized through utilizing best available science that incorporates Indigenous Traditional Knowledge.

What are the details of the bridge agreement with Astaldi?
- Astaldi was progressing well this fall and were showing some good progress.
- The contractor lost some momentum as a result of protests; there is ground to make up as a result.
- Bridge agreement with Astaldi is still in place.
- The bridge agreement laid out firm production targets, expectations of the contractor, and financial incentives through the fall of 2016 to continue construction progress on the powerhouse and intake at Muskrat Falls.
- Nalcor is continuing to hold discussions with Astaldi in an effort to negotiate another interim agreement to the end of 2017 or an overall agreement for completion of the full work scope.
- Details of these ongoing negotiations are confidential.

Astaldi indicated the value they could earn under the bridge agreement was $150 million (CAD$). Is this correct?
- Through the negotiated bridge agreement, Astaldi had the opportunity to earn up to $150 million Canadian by meeting all milestones. Astaldi continues to work towards meeting these milestones.

When will an agreement with Astaldi be announced?
- Nalcor is continuing to hold discussions with Astaldi in an effort to negotiate another interim agreement to the end of 2017 or an overall agreement for completion of the full work scope.

Was $150 million covered in June cost update?
- The financial terms of the agreement were reflected in the June 2016 capital cost forecast for the Muskrat Falls Project.

Why do you tell the people of the province that the Astaldi contract negotiations are confidential when Astaldi reveals the details to its shareholders in Rome?
When I asked about details on the June 2016 cost estimate, you said the details are commercially sensitive. Why?

What is government doing to ensure the safety of the North Spur?
• Design solution - addressed in over 30 engineering studies
• Geotechnical conditions are well understood.
• Extensive field investigations have been completed.
• Validated through independent reviews by MWH Canada and Hatch Ltd
• Jim Gordon publically endorsed the safety of the North Spur dam stating that “All sound measures which will result in a stable slopes and a safe dam.”

What are expected outcomes of injunctions? Are we going to throw them in jail?
• The health and safety of Labradorsians is the utmost priority in the ongoing construction and operation of the Muskrat Falls Project.
• We are working closely with Innu Nation, the Nunatsiavut Government, NunatuKavut Community Council and Nalcor to ensure the project addresses concerns regarding the health and well-being of the people of Labrador.

What is the status of the Oversight Committee’s report?
• The Oversight Committee continues to monitor the project, meets on a regular basis and receives detailed project updates from Nalcor officials.
• The Oversight Committee is currently reviewing:
  o June 2016 project budget performance reporting for the period ending Sept 30
  o Nalcor’s ongoing negotiations with Astaldi
  o Work disruption at the Muskrat Falls worksite in October due to protests
  o Available information related to methyl mercury environmental monitoring
  o Independent Experts Advisory Committee process
  o $2.9 billion Federal Loan Guarantee
  o Corresponding impacts of each of these on project cost and schedule.
Can you take a look at these and provide edits/answers for the ones you are comfortable with?

Diana Quinton
Director of Communications
Natural Resources
Government of Newfoundland and Labrador
709-729-5282
Can we please discuss?

Corey Snook  
Director of Electricity and Alternative Energy (Acting)  
Department of Natural Resources  
Government of Newfoundland and Labrador  
St. John's, NL, Canada A1B 4J6  
coreysnook@.gov.nl.ca  
O: 709.729.3131 / M: 709.725.8186

Can you take a look at these and provide edits/answers for the ones you are comfortable with?

Diana Quinton  
Director of Communications  
Natural Resources  
Government of Newfoundland and Labrador  
709-729-5282
NALCOR

November 16, 2016

Why did it take so long to reply to the August 1st letter?

- In the spirit of transparency and accountability, the department has responded to dozens of detailed questions asked by the Official Opposition regarding Nalcor and the Muskrat Falls Project.
- The research and analysis undertaken to answer these detailed questions is thorough and evidence-based.
- You are welcome.

Why do we continue to invest in Holyrood?

- On average, Holyrood produces between 15 and 25 percent of the island’s annual electricity generation and burns around 18,000 barrels of oil per day.
- Holyrood assists in meeting winter peak and overall island electricity requirements.
- Holyrood will provide generation until the Muskrat Falls project enters service and remain available for stand-by generation for a period of time until it is decommissioned as a generation plant.
- Holyrood Unit 3 will then provide transmission system voltage stability which does not require fuel consumption and can be switched back to full generating mode when needed.

What are the details of the additional federal loan guarantee?

- Government secured commitment from Canada to provide additional loan guarantee support for the Muskrat Falls Project, up to an additional $2.9 billion.
- Important financial support for the province as we get Muskrat Falls Project on track.
- Specific conditions will be negotiated with Canada in the near future.

Can the Province afford the equity without the additional federal loan guarantee?

The Province sought the enhanced FLG as part of its actions in addressing NL’s current fiscal challenges. The enhanced guarantee allows NL and the Muskrat Falls Project to leverage the Federal Government’s AAA credit rating, resulting in lower financing costs for the capital necessary to complete the project. In the absence of the enhanced guarantee, the Province would have had to fund the capital through its provincial borrowing program at higher rates. This would result in higher overall financing costs for the Province which would have further deteriorated the current fiscal situation and require further cost savings actions by the Province to address the differential.

What is the impact of the additional federal loan guarantee on rates?

The primary benefit of the enhanced Federal Loan Guarantee is to reduce the future borrowing requirements of the province. An important ancillary benefit is a reduction in cost to the island electricity rate payers. We continue to negotiate the final details of the enhanced FLG with the federal government.

How will rates be mitigated?

- We have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power.
- We must ensure reliability of power and we must keep rates as low as possible.

Will government use revenue from exports to mitigate rates?

- We have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power.
- We must ensure reliability of power and we must keep rates as low as possible.

What discussions are we having with HQ and the Government of Quebec?

- Is government exploring the option of selling excess energy through Hydro Quebec? Have any negotiations commenced with Hydro Quebec?
  - NL Hydro is already selling excess energy through the HQ transmission system and may continue to use this transmission booking in coordination with Nalcor’s transmission rights through the Maritimes acquired through its Muskrat Falls and Maritime Link partnership with Emera.
  - Neither the Government of Newfoundland and Labrador nor Nalcor Energy are involved in discussions with Hydro Quebec on the Muskrat Falls Project.
Is government or Nalcor engaged in any discussion regarding the sale or disposal of NL Hydro assets?
- No. Officials or representatives of the present Government have not engaged in discussions to sell or dispose of NL Hydro assets.

What is the status of the EY final report?
- Timing for completing the final report is contingent upon conclusion of a final agreement between Nalcor and contractor Astaldi which is expected by the end of this year.

How much have we spent to date on EY?

What impact did the recent shutdown of the Muskat Falls Project have on costs?
- Nalcor has stated it does not yet have an exact figure on the impact on the project and lost wages.
- Will be substantial cost and schedule impacts (in the hundreds of millions of dollars).
  (Mr. Marshall said during Q3 update that it may be 2-3 months, $2-300 M, won’t know more until the spring.)

What is the cost of requiring soil removal?
- We are working closely with Innu Nation, the Nunatsiavut Government, NunatuKavut Community Council and Nalcor to ensure the project addresses concerns regarding the health and well-being of the people of Labrador.
- An Independent Expert Advisory Committee (IEAC) will be established to seek an independent, evidence-based approach to determine and recommend options for mitigating human health concerns related to methylmercury throughout the reservoir as well as in the Lake Melville ecosystem.
- Mitigation measures will be realized through utilizing best available science that incorporates Indigenous Traditional Knowledge.

Do you disagree with Stan Marshall on soil removal?
- Mr. Marshall - renowned business leader, confident in the work he is doing at Nalcor.
  - An Independent Expert Advisory Committee (IEAC) will be established to seek an independent, evidence-based approach to determine and recommend options for mitigating human health concerns related to methylmercury throughout the reservoir as well as in the Lake Melville ecosystem.
  - Mitigation measures will be realized through utilizing best available science that incorporates Indigenous Traditional Knowledge.

What are the details of the bridge agreement with Astaldi?
- **Astaldi was progressing well this fall and were showing some good progress**
  - The contractor lost some momentum as a result of protests; there is ground to make up as a result.
  - Bridge agreement with Astaldi is still in place.
  - The bridge agreement laid out firm production targets, expectations of the contractor, and financial incentives through the targets to continue construction progress on the powerhouse and intake at Muskat Falls.
  - Nalcor is continuing to hold discussions with Astaldi in an effort to negotiate another interim agreement to the end of 2017 or an overall agreement for completion of the full work scope.
  - Details of these ongoing negotiations are confidential.

Astaldi indicated the value they could earn under the bridge agreement was $150 million (CAD$). Is this correct?
- Astaldi had the opportunity to earn up to $150 million Canadian by meeting all milestones. Astaldi continues to work towards meeting these milestones.

When will an agreement with Astaldi be announced?
- Nalcor is continuing to hold discussions with Astaldi in an effort to negotiate another interim agreement to the end of 2017 or an overall agreement for completion of the full work scope.

Was $150 million covered in June cost update?
The financial terms of the agreement were reflected in the June 2016 capital cost forecast for the Muskrat Falls Project.

Why do you tell the people of the province that the Astaldi contract negotiations are confidential when Astaldi reveals the details to its shareholders in Rome?

When I asked about details on the June 2016 cost estimate, you said the details are commercially sensitive. Why?

What is government doing to ensure the safety of the North Spur?
- Design solution - addressed in over 30 engineering studies
- Geotechnical conditions are well understood
- Extensive field investigations have been completed
- Validated through independent reviews by MWH Canada and Hatch Ltd.
- Jim Gordon publically endorsed the safety of the North Spur dam stating that "All sound measures which will result in a stable slopes and a safe dam."  
- There are literally dozens of technical documents on the North Spur published on the Muskrat Falls website including detailed engineering reports and studies by qualified independent third parties.

What are expected outcomes of injunctions? Are we going to throw them in jail?
- The health and safety of Labradorians is the utmost priority in the ongoing construction and operation of the Muskrat Falls Project.
- We are working closely with Innu Nation, the Nunatsiavut Government, NunatuKavut Community Council and Nalcor to ensure the project addresses concerns regarding the health and well-being of the people of Labrador.

What is the status of the Oversight Committee’s report?
- The Oversight Committee continues to monitor the project, meets on a regular basis and receives detailed project updates from Nalcor officials.
- The Oversight Committee is currently reviewing:
  - June 2016 project budget performance reporting for the period ending Sept 30
  - Nalcor’s ongoing negotiations with Astaldi
  - Work disruption at the Muskrat Falls worksite in October due to protests
  - Available information related to methyl mercury environmental monitoring
  - Independent Experts Advisory Committee process
  - $2.9 billion Federal Loan Guarantee
  - Corresponding impacts of each of these on project cost and schedule.
Marshall, Andrea

From: Parsons, Walter  
Sent: Wednesday, November 16, 2016 10:56 AM 
To: Quinton, Diana  
Subject: FW: QA for today - needs some answers inserted  
Attachments: Week one - November 16A.doc

Sorry for the delay

From: Snook, Corey  
Sent: Wednesday, November 16, 2016 10:47 AM  
To: Parsons, Walter <WalterParsons@gov.nl.ca>  
Subject: RE: QA for today - needs some answers inserted

Walter,

Here are the revised draft QAs on Hutchings.

-Corey

Corey Snook  
Director of Electricity and Alternative Energy (Acting)  
Department of Natural Resources  
Government of Newfoundland and Labrador  
St. John’s, NL, Canada A1B 4J6  
coreysnook@gov.nl.ca  
O: 709.729.3131 / M: 709.725.8186

Newfoundland Labrador

From: Parsons, Walter  
Sent: Wednesday, November 16, 2016 8:54 AM  
To: Snook, Corey  
Subject: FW: QA for today - needs some answers inserted

Can you take a look at these and provide edits/answers for the ones you are comfortable with?

From: Quinton, Diana  
Sent: Wednesday, November 16, 2016 8:53 AM  
To: Bown, Charles W. <cbown@gov.nl.ca>; Parsons, Walter <WalterParsons@gov.nl.ca>  
Subject: QA for today - needs some answers inserted

Diana Quinton  
Director of Communications  
Natural Resources  
Government of Newfoundland and Labrador
Why did it take so long to reply to the August 1st letter?
- In the spirit of transparency and accountability, the department has responded to dozens of detailed questions asked by the Official Opposition regarding Nalcor and the Muskrat Falls Project.
- The research and analysis undertaken to answer these detailed questions is thorough and evidence-based.
- You are welcome.

Why do we continue to invest in Holyrood?
- On average, Holyrood produces between 15 and 25 percent of the island’s annual electricity generation and burns around 18,000 barrels of oil per day.
- Holyrood assists in meeting winter peak and overall island electricity requirements.
- Holyrood will provide generation until the Muskrat Falls project enters service and remain available for stand-by generation for a period of time until it is decommissioned as a generation plant.
- Holyrood Unit 3 will then provide transmission system voltage stability which does not require fuel consumption and can be switched back to full generating mode when needed.

What are the details of the additional federal loan guarantee?
- Government secured commitment from Canada to provide additional loan guarantee support for the Muskrat Falls Project, up to an additional $2.9 billion.
- Important financial support for the province as we get Muskrat Falls Project on track.
- Specific conditions will be negotiated with Canada in the near future.

Can the Province afford the equity without the additional federal loan guarantee?
The Province sought the enhanced FLG as part of its actions in addressing NL’s current fiscal challenges. The enhanced guarantee allows NL and the Muskrat Falls Project to leverage the Federal Government’s AAA credit rating, resulting in lower financing costs for the capital necessary to complete the project. In the absence of the enhanced guarantee, the Province would have had to fund the capital through its provincial borrowing program at higher rates. This would result in higher overall financing costs for the Province which would have further deteriorated the current fiscal situation and require further cost savings actions by the Province to address the differential.

What is the impact of the additional federal loan guarantee on rates? [S. 29(1)(a)]
The primary benefit of the enhanced Federal Loan Guarantee is to reduce the future borrowing requirements of the province. An important ancillary benefit is a reduction in cost to the island electricity rate payers. We continue to negotiate the final details of the enhanced FLG with the federal government.

How will rates be mitigated?
- We have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power.
- We have also secured in principle that the Federal Government will enhance its loan guarantee for the project. This is an important achievement towards rate mitigation.
- We must ensure reliability of power and we must keep rates as low as possible.

Will government use revenue from exports to mitigate rates?
- We have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power.
- We must ensure reliability of power and we must keep rates as low as possible.

What discussions are we having with HQ and the Government of Quebec?
- Hydro Quebec has expressed a willingness to work together on hydroelectric development. While there have been no specific proposals discussed, we are open to hearing what they have to say.

Is government exploring the option of selling excess energy through Hydro Quebec? Have any negotiations commenced with Hydro Quebec?
- NL Hydro is already selling excess energy through the HQ transmission system and may continue to use this transmission booking in coordination with Nalcor’s
transmission rights through the Maritimes acquired through its Muskrat Falls and
Maritime Link partnership with Emera.
- Neither the Government of Newfoundland and Labrador nor Nalcor Energy are
involved in discussions with Hydro Quebec on the Muskrat Falls Project.

**Is government or Nalcor engaged in any discussion regarding the sale or
disposal of NL Hydro assets?**
- No. Officials or representatives of the present Government have not engaged in
discussions to sell or dispose of NL Hydro assets.

**What is the status of the EY final report?**
- Timing for completing the final report is contingent upon conclusion of a new
agreement between Nalcor and contractor Astaldi which is expected by the end of
this year.

**How much have we spent to date on EY?**

**What impact did the recent shutdown of the Muskrat Falls Project have on costs?**
- Nalcor has stated its does not yet have an exact figure on the impact on the project
and lost wages.
- Will be substantial cost and schedule impacts (in the hundreds of millions of dollars).
  (Mr. Marshall said during Q3 update that it may be 2-3 months, $2-300 M, won’t
know more until the spring.)

**What is the cost of requiring soil removal?**
- We are working closely with Innu Nation, the Nunatsiavut Government, NunatuKavut
Community Council and Nalcor to ensure the project addresses concerns regarding
the health and well-being of the people of Labrador.
- An Independent Expert Advisory Committee (IEAC) will be established to seek an
independent, evidence-based approach to determine and recommend options for
mitigating human health concerns related to methylmercury throughout the reservoir
as well as in the Lake Melville ecosystem.
- Mitigation measures will be realized through utilizing best available science that
incorporates Indigenous Traditional Knowledge.
- We will not predetermine the outcome of the technical assessment of soil removal
impact and whether it should occur. Cost assessment will only be necessary if the
technical assessment concludes that soil removal is necessary.

**Do you disagree with Stan Marshall on soil removal?**
- Mr. Marshall offered an opinion on soil removal. He is a renowned business leader
and we are confident in the work he is doing at Nalcor.
- I will not predetermine the outcome of the technical assessment of soil removal
impact and whether it should occur.
- An Independent Expert Advisory Committee (IEAC) will be established to seek an
independent, evidence-based approach to determine and recommend options for
mitigating human health concerns related to methylmercury throughout the reservoir
as well as in the Lake Melville ecosystem.
- Mitigation measures will be realized through utilizing best available science that
incorporates Indigenous Traditional Knowledge.

**What are the details of the bridge agreement with Astaldi?**
- Astaldi was progressing well this fall and were showing some good progress.
- The contractor lost some momentum as a result of protests; there is ground to make
up as a result.
- Bridge agreement with Astaldi is still in place.
- The bridge agreement laid out firm production targets, expectations of the
contractor, and financial incentives through the fall of 2016 to continue construction
progress on the powerhouse and intake at Muskrat Falls.
- Nalcor is continuing to hold discussions with Astaldi in an effort to negotiate another
interim agreement to the end of 2017 or an overall agreement for completion of the
full work scope.
- Details of these ongoing negotiations are confidential.

Astaldi indicated the value they could earn under the bridge agreement was $150
million (CAD$). Is this correct?
• Through the negotiated bridge agreement, Astaldi had the opportunity to earn up to $150 million Canadian by meeting all milestones. Astaldi continues to work towards meeting these milestones.

**When will an agreement with Astaldi be announced?**
• Nalcor is continuing to hold discussions with Astaldi in an effort to negotiate another interim agreement to the end of 2017 or an overall agreement for completion of the full work scope.

**Was $150 million covered in June cost update?**
• Yes. The financial terms of the agreement were reflected in the June 2016 capital cost forecast for the Muskrat Falls Project.

**Why do you tell the people of the province that the Astaldi contract negotiations are confidential when Astaldi reveals the details to its shareholders in Rome?**

**When I asked about details on the June 2016 cost estimate, you said the details are commercially sensitive. Why?**

**What is government doing to ensure the safety of the North Spur?**
• Design solution - addressed in over 30 engineering studies
• Geotechnical conditions are well understood.
• Extensive field investigations have been completed.
• Validated through independent reviews by MWH Canada and Hatch Ltd.
• Jim Gordon publicly endorsed the safety of the North Spur dam stating that “All sound measures which will result in a stable slopes and a safe dam.”
• There are literally dozens of technical documents on the north Spur published on the Muskrat Falls website including detailed engineering reports and studies by qualified independent third parties.

**What are expected outcomes of injunctions? Are we going to throw them in jail?**
• The health and safety of Labradorians is the utmost priority in the ongoing construction and operation of the Muskrat Falls Project.
• We are working closely with Innu Nation, the Nunatsiavut Government, NunatuKavut Community Council and Nalcor to ensure the project addresses concerns regarding the health and well-being of the people of Labrador.

**What is the status of the Oversight Committee’s report?**
• The Oversight Committee continues to monitor the project, meets on a regular basis and receives detailed project updates from Nalcor officials.
• The Oversight Committee is currently reviewing:
  o June 2016 project budget performance reporting for the period ending Sept 30
  o Nalcor’s ongoing negotiations with Astaldi
  o Work disruption at the Muskrat Falls worksite in October due to protests
  o Available information related to methyl mercury environmental monitoring
  o Independent Experts Advisory Committee process
  o $2.9 billion Federal Loan Guarantee
  o Corresponding impacts of each of these on project cost and schedule.
From: Snook, Corey
Sent: Wednesday, November 16, 2016 11:01 AM
To: Parsons, Walter <WalterParsons@gov.nl.ca>
Subject: RE: QA for today - needs some answers inserted

Here is the markup version...

Corey Snook  
Director of Electricity and Alternative Energy (Acting)  
Department of Natural Resources  
Government of Newfoundland and Labrador  
St John’s, NL, Canada  A1B 4J6  
coreysnook@gov.nl.ca  
O: 709.729.3131 / M: 709.725.8186

From: Snook, Corey
Sent: Wednesday, November 16, 2016 10:47 AM
To: Parsons, Walter
Subject: RE: QA for today - needs some answers inserted

Walter,

Here are the revised draft QAs on Hutchings.

-Corey

Corey Snook  
Director of Electricity and Alternative Energy (Acting)  
Department of Natural Resources  
Government of Newfoundland and Labrador  
St John’s, NL, Canada  A1B 4J6  
coreysnook@gov.nl.ca  
O: 709.729.3131 / M: 709.725.8186
From: Parsons, Walter  
Sent: Wednesday, November 16, 2016 8:54 AM  
To: Snook, Corey  
Subject: FW: QA for today - needs some answers inserted  

Can you take a look at these and provide edits/answers for the ones you are comfortable with?

From: Quinton, Diana  
Sent: Wednesday, November 16, 2016 8:53 AM  
To: Bown, Charles W. <cbown@gov.nl.ca>; Parsons, Walter <WalterParsons@gov.nl.ca>  
Subject: QA for today - needs some answers inserted

Diana Quinton  
Director of Communications  
Natural Resources  
Government of Newfoundland and Labrador  
709-729-5282
Why did it take so long to reply to the August 1st letter?
- In the spirit of transparency and accountability, the department has responded to dozens of detailed questions asked by the Official Opposition regarding Nalcor and the Muskrat Falls Project.
- The research and analysis undertaken to answer these detailed questions is thorough and evidence-based.
- You are welcome.

Why do we continue to invest in Holyrood?
- On average, Holyrood produces between 15 and 25 percent of the island’s annual electricity generation and burns around 18,000 barrels of oil per day.
- Holyrood assists in meeting winter peak and overall island electricity requirements.
- Holyrood will provide generation until the Muskrat Falls project enters service and remain available for stand-by generation for a period of time until it is decommissioned as a generation plant.
- Holyrood Unit 3 will then provide transmission system voltage stability which does not require fuel consumption and can be switched back to full generating mode when needed.

What are the details of the additional federal loan guarantee?
- Government secured commitment from Canada to provide additional loan guarantee support for the Muskrat Falls Project, up to an additional $2.9 billion.
- Important financial support for the province as we get Muskrat Falls Project on track.
- Specific conditions will be negotiated with Canada in the near future.

Can the Province afford the equity without the additional federal loan guarantee?
The Province sought the enhanced FLG as part of its actions in addressing NL’s current fiscal challenges. The enhanced guarantee allows NL and the Muskrat Falls Project to leverage the Federal Government’s AAA credit rating, resulting in lower financing costs for the capital necessary to complete the project. In the absence of the enhanced guarantee, the Province would have had to fund the capital through its provincial borrowing program at higher rates. This would result in higher overall financing costs for the Province which would have further deteriorated the current fiscal situation and require further cost savings actions by the Province to address the differential.

What is the impact of the additional federal loan guarantee on rates?  
S. 29(1)(a)
The primary benefit of the enhanced Federal Loan Guarantee is to reduce the future borrowing requirements of the province. An important ancillary benefit is a reduction in cost to the island electricity rate payers. We continue to negotiate the final details of the enhanced FLG with the federal government.

How will rates be mitigated?
- We have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power.
- We have also secured in principle that the Federal Government will enhance its loan guarantee for the project. This is an important achievement towards rate mitigation.
- We must ensure reliability of power and we must keep rates as low as possible.

Will government use revenue from exports to mitigate rates?
- We have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power.
- We must ensure reliability of power and we must keep rates as low as possible.

What discussions are we having with HQ and the Government of Quebec?
- Hydro Quebec has expressed a willingness to work together on hydroelectric development. While there have been no specific proposals discussed, we are open to hearing what they have to say.
Is government exploring the option of selling excess energy through Hydro Quebec? Have any negotiations commenced with Hydro Quebec?

- NL Hydro is already selling excess energy through the HQ transmission system and may continue to use this transmission booking in coordination with Nalcor’s transmission rights through the Maritimes acquired through its Muskrat Falls and Maritime Link partnership with Emera.
- Neither the Government of Newfoundland and Labrador nor Nalcor Energy are involved in discussions with Hydro Quebec on the Muskrat Falls Project.

Is government or Nalcor engaged in any discussion regarding the sale or disposal of NL Hydro assets?

- No. Officials or representatives of the present Government have not engaged in discussions to sell or dispose of NL Hydro assets.

What is the status of the EY final report?

- Timing for completing the final report is contingent upon conclusion of a finalnew agreement between Nalcor and contractor Astaldi which is expected by the end of this year.

How much have we spent to date on EY?

What impact did the recent shutdown of the Muskrat Falls Project have on costs?

- Nalcor doesn’t have an exact figure - had on the impact on the project and in lost wages.
- Will be substantial cost and schedule impacts (in the hundreds of millions of dollars).
  (Mr. Marshall said during Q3 update that it may be 2-3 months, $2-300 M, won’t know more until the spring.)

What is the cost of requiring soil removal?

- We are working closely with Innu Nation, the Nunatsiavut Government, NunatuKavut Community Council and Nalcor to ensure the project addresses concerns regarding the health and well-being of the people of Labrador.
- An Independent Expert Advisory Committee (IEAC) will be established to seek an independent, evidence-based approach to determine and recommend options for mitigating human health concerns related to methylmercury throughout the reservoir as well as in the Lake Melville ecosystem.
- Mitigation measures will be realized through utilizing best available science that incorporates Indigenous Traditional Knowledge.
- We will not predetermine the outcome of the technical assessment of soil removal impact and whether it should occur. Cost assessment will only be necessary if the technical assessment concludes that soil removal is necessary.

Do you disagree with Stan Marshall on soil removal?

- Mr. Marshall offered an opinion on soil removal. He is a renowned business leader, and we are confident in the work he is doing at Nalcor.
- I will not predetermine the outcome of the technical assessment of soil removal impact and whether it should occur.
- An Independent Expert Advisory Committee (IEAC) will be established to seek an independent, evidence-based approach to determine and recommend options for mitigating human health concerns related to methylmercury throughout the reservoir as well as in the Lake Melville ecosystem.
- Mitigation measures will be realized through utilizing best available science that incorporates Indigenous Traditional Knowledge.

What are the details of the bridge agreement with Astaldi?

- Astaldi was progressing well this fall and were showing some good progress.
- The contractor lost some momentum as a result of protests; there is ground to make up as a result.
- Bridge agreement with Astaldi is still in place.
- The bridge agreement laid out firm production targets, expectations of the contractor, and financial incentives through the fall of 2016 to continue construction progress on the powerhouse and intake at Muskrat Falls.
Nalcor is continuing to hold discussions with Astaldi in an effort to negotiate another interim agreement to the end of 2017 or an overall agreement for completion of the full work scope.

Details of these ongoing negotiations are confidential.

**Astaldi indicated the value they could earn under the bridge agreement was $150 million (CAD$). Is this correct?**

- Through the negotiated bridge agreement, Astaldi had the opportunity to earn up to $150 million Canadian by meeting all milestones. Astaldi continues to work towards meeting these milestones.

**When will an agreement with Astaldi be announced?**

- Nalcor is continuing to hold discussions with Astaldi in an effort to negotiate another interim agreement to the end of 2017 or an overall agreement for completion of the full work scope.

**Was $150 million covered in June cost update?**

- Yes. The financial terms of the agreement were reflected in the June 2016 capital cost forecast for the Muskrat Falls Project.

**Why do you tell the people of the province that the Astaldi contract negotiations are confidential when Astaldi reveals the details to its shareholders in Rome?**

**When I asked about details on the June 2016 cost estimate, you said the details are commercially sensitive. Why?**

**What is government doing to ensure the safety of the North Spur?**

- Design solution - addressed in over 30 engineering studies
- Geotechnical conditions are well understood.
- Extensive field investigations have been completed.
- Validated through independent reviews by MWH Canada and Hatch Ltd.
- Jim Gordon publicly endorsed the safety of the North Spur dam stating that “All sound measures which will result in a stable slopes and a safe dam.”

- There are literally dozens of technical documents on the north Spur published on the Muskrat Falls website including detailed engineering reports and studies by qualified independent third parties.

**What are expected outcomes of injunctions? Are we going to throw them in jail?**

- The health and safety of Labradorians is the utmost priority in the ongoing construction and operation of the Muskrat Falls Project.
- We are working closely with Innu Nation, the Nunatsiavut Government, NunatuKavut Community Council and Nalcor to ensure the project addresses concerns regarding the health and well-being of the people of Labrador.

**What is the status of the Oversight Committee’s report?**

- The Oversight Committee continues to monitor the project, meets on a regular basis and receives detailed project updates from Nalcor officials.
- The Oversight Committee is currently reviewing:
  - June 2016 project budget performance reporting for the period ending Sept 30
  - Nalcor’s ongoing negotiations with Astaldi
  - Work disruption at the Muskrat Falls worksite in October due to protests
  - Available information related to methyl mercury environmental monitoring
  - Independent Experts Advisory Committee process
  - $2.9 billion Federal Loan Guarantee
  - Corresponding impacts of each of these on project cost and schedule.
Marshall, Andrea

From: Quinton, Diana
Sent: Wednesday, November 16, 2016 11:25 AM
To: Parsons, Walter
Subject: RE: QA for today - needs some answers inserted
Attachments: Week one - November 16.doc

See the ones in yellow. Are they correct?

From: Parsons, Walter
Sent: Wednesday, November 16, 2016 11:03 AM
To: Quinton, Diana
Subject: FW: QA for today - needs some answers inserted

From: Snook, Corey
Sent: Wednesday, November 16, 2016 11:01 AM
To: Parsons, Walter <WalterParsons@gov.nl.ca>
Subject: RE: QA for today - needs some answers inserted

Here is the markup version...

Corey Snook
Director of Electricity and Alternative Energy (Acting)
Department of Natural Resources
Government of Newfoundland and Labrador
St. John’s, NL, Canada A1B 4J6
coreysnook@gov.nl.ca
O: 709.729.3131 / M: 709.725.8186

Newfoundland Labrador

From: Snook, Corey
Sent: Wednesday, November 16, 2016 10:47 AM
To: Parsons, Walter
Subject: RE: QA for today - needs some answers inserted

Walter,

Here are the revised draft QAs on Hutchings.

- Corey

Corey Snook
Director of Electricity and Alternative Energy (Acting)
Department of Natural Resources
Government of Newfoundland and Labrador
St. John’s, NL, Canada A1B 4J6
From: Parsons, Walter
Sent: Wednesday, November 16, 2016 8:54 AM
To: Snook, Corey
Subject: FW: QA for today - needs some answers inserted

Can you take a look at these and provide edits/answers for the ones you are comfortable with?

From: Quinton, Diana
Sent: Wednesday, November 16, 2016 8:53 AM
To: Bown, Charles W. <cbown@gov.nl.ca>; Parsons, Walter <WalterParsons@gov.nl.ca>
Subject: QA for today - needs some answers inserted

Diana Quinton
Director of Communications
Natural Resources
Government of Newfoundland and Labrador
709-729-5282
MUSKRAT FALLS QUESTIONS

November 16, 2016

Why did it take so long to reply to the August 1st letter?
- Department has responded to dozens of detailed questions asked by the Official Opposition regarding Nalcor and the Muskrat Falls Project.
- The research and analysis undertaken to answer these detailed questions is thorough and evidence-based.
- You are welcome.

Why do we continue to invest in Holyrood?
- On average, Holyrood produces between 15 and 25 percent of the island’s annual electricity generation and burns around 18,000 barrels of oil per day.
- Holyrood assists in meeting winter peak and overall island electricity requirements.
- Holyrood will provide generation until the Muskrat Falls project enters service and remain available for stand-by generation for a period of time until it is decommissioned as a generation plant.
- Holyrood Unit 3 will then provide transmission system voltage stability which does not require fuel consumption and can be switched back to full generating mode when needed.

What are the details of the additional federal loan guarantee?
- Government secured commitment from Canada to provide additional loan guarantee support for the Muskrat Falls Project, up to an additional $2.9 billion.
- Important financial support for the province as we get Muskrat Falls Project on track.
- Specific conditions will be negotiated with Canada in the near future.

Can we afford the equity without the additional federal loan guarantee?
- We sought the additional federal loan guarantee to help with fiscal challenges.
- We can now leverage Federal Government’s AAA credit rating, resulting in lower financing costs for the capital necessary to complete the Muskrat Fall Project.
- Without the additional guarantee, we would have had to fund the capital at higher rates resulting in higher financing costs.

What is the impact of the additional federal loan guarantee on rates?
- The primary benefit of the additional federal loan guarantee is to reduce borrowing.
- Another benefit is a reduction in cost to the island electricity rate payers.
- We continue to negotiate the final details of the additional federal loan guarantee.
- Once that is finalized, we will be in a position to provide the impact on rates.

How will rates be mitigated?
- We have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power.
- We have also secured in principle that the Federal Government will enhance its loan guarantee for the project. This is an important achievement towards rate mitigation.
- We must ensure reliability of power and we must keep rates as low as possible.

Will government use revenue from exports to mitigate rates?
- We have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power.
- We must ensure reliability of power and we must keep rates as low as possible.

What discussions are we having with HQ and the Government of Quebec?
- Hydro Quebec has expressed a willingness to work together on hydroelectric development. While there have been no specific proposals discussed, we are open to hearing what they have to say.

Is government exploring the option of selling excess energy through Hydro Quebec? Have any negotiations commenced with Hydro Quebec?
- NL Hydro is already selling excess energy through the HQ transmission system and may continue to use this transmission booking in coordination with Nalcor’s transmission rights through the Maritimes acquired through its Muskrat Falls and Maritime Link partnership with Emera.
- Neither the Government of Newfoundland and Labrador nor Nalcor Energy are involved in discussions with Hydro Quebec on the Muskrat Falls Project.
Is government or Nalcor engaged in any discussion regarding the sale or disposal of NL Hydro assets?
• No. Officials or representatives of the present Government have not engaged in discussions to sell or dispose of NL Hydro assets.

What is the status of the EY final report?
• Timing for completing the final report is contingent upon conclusion of a final agreement between Nalcor and contractor Astaldi which is expected by the end of this year.

How much have we spent to date on EY?
Approximately $1.6 million for the interim report.

What impact did the recent shutdown of the Muskrat Falls Project have on costs?
• Nalcor doesn’t have an exact figure - had an impact on the project and in lost wages.
• Will be substantial cost and schedule impacts (in the hundreds of millions of dollars). (Mr. Marshall said during Q3 update that it may be 2-3 months, $2-300 m, won’t know more until the spring.)

What is the cost of requiring soil removal?
• We are working closely with Innu Nation, the Nunatsiavut Government, NunatuKavut Community Council and Nalcor to ensure the project addresses concerns regarding the health and well-being of the people of Labrador.
• An Independent Expert Advisory Committee (IEAC) will be established to seek an independent, evidence-based approach to determine and recommend options for mitigating human health concerns related to methylmercury throughout the reservoir as well as in the Lake Melville ecosystem.
• Mitigation measures will be realized through utilizing best available science that incorporates Indigenous Traditional Knowledge.
• We will not predetermine the outcome of the technical assessment of soil removal impact and whether it should occur. Cost assessment will only be necessary if the technical assessment concludes that soil removal is necessary.

Do you disagree with Stan Marshall on soil removal?
• Mr. Marshall offered an opinion on soil removal. He is a renowned business leader and we are confident in the work he is doing at Nalcor.
• I will not predetermine the outcome of the technical assessment of soil removal impact and whether it should occur.
• An Independent Expert Advisory Committee (IEAC) will be established to seek an independent, evidence-based approach to determine and recommend options for mitigating human health concerns related to methylmercury throughout the reservoir as well as in the Lake Melville ecosystem.
• Mitigation measures will be realized through utilizing best available science that incorporates Indigenous Traditional Knowledge.

What are the details of the bridge agreement with Astaldi?
• Astaldi was progressing well this fall and were showing some good progress.
• The contractor lost some momentum as a result of protests; there is ground to make up as a result.
• Bridge agreement with Astaldi is still in place.
• The bridge agreement laid out firm production targets, expectations of the contractor, and financial incentives through the fall of 2016 to continue construction progress on the powerhouse and intake at Muskrat Falls.
• Nalcor is continuing to hold discussions with Astaldi in an effort to negotiate another interim agreement to the end of 2017 or an overall agreement for completion of the full work scope.
• Details of these ongoing negotiations are confidential.

Astaldi indicated the value they could earn under the bridge agreement was $150 million (CAD$). Is this correct?
• Through the negotiated bridge agreement, Astaldi had the opportunity to earn up to $150 million Canadian by meeting all milestones. Astaldi continues to work towards meeting these milestones.
When will an agreement with Astaldi be announced?
• Nalcor is continuing to hold discussions with Astaldi in an effort to negotiate another interim agreement to the end of 2017 or an overall agreement for completion of the full work scope.

Was $150 million covered in June cost update?
• Yes, the financial terms of the agreement were reflected in the June 2016 capital cost forecast for the Muskrat Falls Project.

Why do you tell the people of the province that the Astaldi contract negotiations are confidential when Astaldi reveals the details to its shareholders in Rome?
• Details are confidential as negotiations are ongoing. You will have to ask Astaldi why they provided this information to their shareholders.

When I asked about details on the June 2016 cost estimate, you said the details are commercially sensitive. Why?
• Because we are still in negotiations with Astaldi.

What is government doing to ensure the safety of the North Spur?
• Design solution - addressed in over 30 engineering studies
• Geotechnical conditions are well understood.
• Extensive field investigations have been completed.
• Validated through independent reviews by MWH Canada and Hatch Ltd.
• Jim Gordon publically endorsed the safety of the North Spur dam stating that “All sound measures which will result in a stable slopes and a safe dam.”
• There are literally dozens of technical documents on the north Spur published on the Muskrat Falls website including detailed engineering reports and studies by qualified independent third parties.

What are expected outcomes of injunctions? Are we going to throw them in jail?
• The health and safety of Labradorians is the utmost priority in the ongoing construction and operation of the Muskrat Falls Project.
• We are working closely with Innu Nation, the Nunatsiavut Government, NunatuKavut Community Council and Nalcor to ensure the project addresses concerns regarding the health and well-being of the people of Labrador.

What is the status of the Oversight Committee’s report?
• The Oversight Committee continues to monitor the project, meets on a regular basis and receives detailed project updates from Nalcor officials.
• The Oversight Committee is currently reviewing:
  o June 2016 project budget performance reporting for the period ending Sept 30
  o Nalcor’s ongoing negotiations with Astaldi
  o Work disruption at the Muskrat Falls worksite in October due to protests
  o Available information related to methyl mercury environmental monitoring
  o Independent Experts Advisory Committee process
  o $2.9 billion Federal Loan Guarantee
  o Corresponding impacts of each of these on project cost and schedule.
Potential copyright material

If you wish to obtain a copy please contact the ATIPP Office at (709) 729-7072 or atippoffice@gov.nl.ca.
August 1, 2016

Honorable Siobhan Coady
Minister of Natural Resources
P.O. Box 8700
St. John’s, NL
A1B 4J6

Dear Minister Coady,

On June 24th 2016 Mr. Stan Marshall, Chief Executive Officer of Nalcor Energy, provided a project update and technical briefing regarding the Muskrat Falls Project to the public. This update provided a new project cost, based on new project assumptions, and new project schedules were referenced.

Since this briefing, there have been questions in the public discourse surrounding the new assumptions and how these were formulated to identify the new project cost and schedules.

In the interest of proactive disclosure, openness, and transparency I believe that it is your responsibility as the Minister of Natural Resources to ensure that the recent change in assumptions made at Nalcor are evidence based and clearly connect current assumptions with new cost projections and time lines for completion of the project. To this end, I have attached a list of questions relating to the Muskrat Falls project.

Thank you in advance,

Mr. Keith Hutchings
MHA Ferryland
Official Opposition Critic Department of Natural Resources
Future Energy Demand and Load Forecasting

In October 2012, leading up to the sanctioning of Muskrat Falls, the Manitoba Hydro Report confirmed that the “Load Forecast for the Interconnected Island option is well founded and appropriate as an input into the Decision Gate 3 process.” Manitoba Hydro also commented that elements of the load forecast were conservative because it included a decrease in the general service sector demand where it would normally increase with domestic load. They also pointed to the conservative approach that the load forecast, extrapolated to 2067, did not include any new industrial accounts other than the Vale Long Harbour facility over the entire time-span of the Muskrat Falls project.

Additionally, both the Manitoba Hydro Report and other documents released by the Department of Natural Resources suggest that the development of the Vale Long Harbour facility would require 76MW average demand with a requirement of 85MW at peak demand. Corner Brook Pulp and Paper would require 23 MW, in addition to their own generation capabilities, while the oil refinery at Come-by Chance would have a peak demand of 31 MW. This is paired, within the load forecast, with assumptions that even with a reduction in the population of the province, there will be an increase in the number of homes and larger homes within the province. As noted by the Department of Natural Resources in their November 2012 Load Forecast, 85% of new homes choose electric heat.

When Muskrat Falls was sanctioned by the Board of Directors of Nalcor and Government of NL, it was forecasted that the load would reach sanctioning level in 2020. In the most recent information released by Nalcor, it is now forecasted that the province’s interconnected load will not reach this level until 2036. Additionally, the newest load forecast states that the projected load in 2036 will be lower by 1.4 TWh than anticipated at the time of 2012 project sanction.

Q1: Please provide the detailed updated load forecast for the Island Interconnected System from 2016 – 2067. Please include all revised assumptions and information that was used to create this updated forecast. Please indicate what assumptions and information has changed since the 2012 sanction and original forecast.

Q2: Please specify the current forecasted demand of residential customers, commercial customers, and industrial customers, on both the island and in Labrador from 2016 – 2067. Please indicate why each of these independent demands has changed since the 2012 forecast and what information supported each demand change for residential, commercial and industrial customers.
Q3: Please provide the projected electricity rates based on the new demand forecasts for all identified users from 2016 – 2030, and a break out of what is included in each rate (i.e. equity return, rate of return to Nalcor, projected sale of excess energy and all other elements which make up the electricity rate).

Q4: Please provide the electricity rate transmission cost from Muskrat Falls to the Soldiers Pond Station; please provide the total cost of delivery from Muskrat Falls to Emera; please provide any changes in cost assumptions and related data to support these changes.

**Holyrood Generating Station**

When Muskrat Falls was sanctioned, the Holyrood Generating Station had a total generating capacity of 490 MW and generated between 15% - 20% of the Island's electricity supply. At peak production, in the winter months, it would burn 18,000 barrels of fuel per day. In 2011, this facility cost $135 Million in fuel alone.

In addition to the cost associated with maintaining the aging Holyrood Generating Station, it is a large emitter of Greenhouse Gases and at some future date may be subject to carbon tax for these emissions thus adding additional operation costs. Though the decommissioning of Holyrood and replacing the energy with power generated at Muskrat Falls, the Board of Nalcor and the Government of NL projected a financial, environmental, and regulatory benefit to the project.

Q5: Please provide data on the current status of the Holyrood Generating Station. In specific, the current annual generating capacity, specific cost of current and future capital upgrades in accordance with the projected life cycle of the facility, the annual operational costs of the station, and the date of decommissioning the facility.

Q6: Given the delays in the Muskrat Falls project schedule, what is the long term plan for Holyrood, including timelines?

**Muskrat Falls Project Capital Costs**

In June 2016, Nalcor provided new timelines and cost estimates for the entire project. These costs as compared to the project estimates at the time of sanctioning are outlined in the following table:
<table>
<thead>
<tr>
<th></th>
<th>Cost at Sanction</th>
<th>Cost – June 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Project</strong></td>
<td>$7.4 Billion</td>
<td>$11.4 Billion</td>
</tr>
<tr>
<td><strong>Labrador Transmission</strong></td>
<td>$692 Million</td>
<td>$878 Million</td>
</tr>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Labrador – Island Link</strong></td>
<td>$2.6 Billion</td>
<td>$3.4 Billion</td>
</tr>
<tr>
<td><strong>Muskat Falls Generation</strong></td>
<td>$2.9 Billion</td>
<td>$4.8 Billion</td>
</tr>
<tr>
<td><strong>Station</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Financing and Other Costs</strong></td>
<td>$1.2 Billion</td>
<td>$2.3 Billion</td>
</tr>
</tbody>
</table>

Several updates on the cost and schedule have been given over the past four years.

Q7: Please provide what exactly represents the additional cost as contained in each category above when comparing the cost at sanction to what was released in June 2016.

Q8: Please provide the detailed assumptions, calculations, and rationales that the June 2016 cost is based upon.

Q9: Does the estimated change in financing and other costs include or exclude the possibility of additional loan guarantee by the Federal government?

Q10: What is the current productivity level of Astaldi regarding the placement of concrete in the generating facility and other aspects over the last quarter?

Q11: Please provide information regarding the volume of concrete placed, by month, for the last year for Astaldi, and the placement targets, by month, for the future of the project until completion.

**Relationship with the Federal Government**

In December 2012, the Provincial and Federal Governments signed a loan guarantee agreement. This loan guarantee, provided by the Federal Government, would cover the project cost of $6.3 billion worth of borrowing thus allowing a savings of approximately $1 billion in debt servicing related costs.

Q12: Has the federal government been approached to provide an additional loan guarantee? If so, what amount has been requested and what is the estimated savings this would achieve on the financing costs. Are these reduced financing costs included in the new project estimates accounted in June 2016?
Borrowing

On June 24, 2016 as a part of the Muskrat Falls project update, Nalcor released the Provincial Equity Requirements for the project up to, and including, 2019/2020. These requirements were $1.354 Billion in 2016/2017, $1.240 Billion in 2017/2018, $815 Million in 2018/2019, and $612 Million in 2019/2020.

Regarding this required equity, the Finance Minister said "I can assure people that the announcement on Friday (June 24) by Mr. Marshall certainly is concerning from the projects prospective but from the budget and the treasury’s perspective, we had made certain assumptions in April and I feel fairly confident that those assumptions are in line with what Mr. Marshall announced on Friday (June 24) and we will continue to monitor that."

Q13: Please provide the detailed April budget assumptions that the Finance Minister referenced above and used to calculate the borrowing requirements contained in the 7 year Budget 2016 outlook as related to the Muskrat Falls project?

Q14: Please provide the amounts budgeted in each fiscal year, in the current government’s 7 year forecast released as a part of Budget 2016, for capital investment and or financing of any borrowing into the Muskrat Falls project?

Ratepayers: The Cost of Electricity

According to Scotiabank’s “Fiscal Pulse: Muskrat Falls Project Update” as released on June 28, 2016, domestic electric rates are estimated to be 21.4 cents per kilowatt hour in 2021. This is about 6.3 cents per hour more than projected when Muskrat Falls was sanctioned.

In November 2012, the Department of Natural Resources stated that without the development of Muskrat Falls, rates would increase by 38% between 2016 and 2030. This was attributed to the dependency on oil based products in long term energy consumption over the life cycle of Muskrat Falls. This report also stated that through developing Muskrat Falls, the cost of power would only increase by 18% over the same time period.

Q15: Is Nalcor and the Department of Natural Resources in agreement with this estimated cost per kilowatt hour?

Q16: What is the updated cost estimate for residential energy rates from 2017 – 2030? What assumptions and information is being used to calculate this cost?
Q17: What efforts are being undertaken to ensure that electricity is affordable for the ratepayers of the province?

Excess Energy

In the fall of 2015, it was suggested by the then CEO of Nalcor in a report to government that there was the potential for $3.3 Billion in electricity export revenue that was not counted in the project’s finances.

Q18: What is the Department of Natural Resources’ and Nalcor's current viewpoint regarding the export of excess power? How much power is expected to be exported over the next 35 years and at what rates? What will be both the cost and revenue from the export of excess energy?

Q19: Has the total net revenue from the sale of excess energy been factored into the project’s finances? Please demonstrate where this is factored in and the impact on the cost of the project and domestic power rates in this province.

Hydro Quebec

Q20: Is the current government exploring the option of selling excess energy through Hydro Quebec? Have any negotiations commenced with Hydro Quebec?

Q21: Have any officials or representatives of Nalcor, the Department of Natural Resources, the Department of Finance, or the Premier's Office engaged in any discussion regarding the sale or disposal of NL Hydro assets?

EY Review of Project Cost, Schedule and Related Risk

On April 8, 2016 Ernst & Young submitted an interim report to the Muskrat Falls Oversight Committee. At this time both Ernst & Young and the Minister of Natural Resources indicated that work would continue and that a final report would follow.

Q22: Has a final report been received by the Department of Natural Resources or by the Muskrat Falls Oversight Committee? If so, please provide a copy of this report.

Q23: What was the final cost of the EY Review, inclusive of the interim review, final review and any other associated work surrounding the oversight of the Muskrat Falls project?
In the 80's and 90's I followed the developing research on the issue of mercury contamination of new reservoirs closely as this interested me as a hydropower engineer. However, I have not kept up to date since since the late 90's. Recent controversy on the subject has given be the incentive to read up on this subject once again. Just by happenstance I heard about the workshop that your colleague Perry Trimper held last March in HVGB. I contacted his office at the time with a suggestion that they invited Dr. Drew Bodaly to the event. Dr. Bodaly is recognized as "the guru" on this subject. Unfortunately it was too late to invite him but I noted that his colleagues from DFO St. John's had sufficient mastery to handle the topic competently. I the found the summary report of this event to be informative.

From my own collection I found some excellent information:
1. The first paper by several scientist from the Freshwater Institute in Winnipeg copy attached noted that "to date no medically documented cases are available of mercury poisoning caused by eating fish from new reservoirs". See page 32 of the attached paper. In my opinion the paper is good in its description of the mercury question in northern lakes but questionable on other topics where they are less expert. (This paper is a hard read!!!).
2. I also have a more balanced report from Hydro Quebec which I will be mailing to you tomorrow.

Regards

PS: This paper is too large so I will also send it by mail.
October 28, 2016

Hon. Siobhan Coady,
Minister of Natural Resources,
50 Elizabeth Avenue,
P.O. Box 8700,
St. John’s (NL),
A1B 4J6

Re: Mercury Contamination of Muskrat Fall Reservoir.

Dear Minister,

This follows up to my e-mail message of Wednesday, October 26.

As promised I am enclosing an excerpt from the paper by Rosenberg et al (Freshwater Institute and University of Manitoba) as well as the section on Mercury from Hydro Quebec’s Summary of Knowledge Acquired.

I find Hydro Quebec’s write up more balanced and easier to read than Rosenberg et al.

The involvement of the Cree people in a substantive role in addressing health issues associated with the James Bay Hydro Development appears to be the direction the NL Government is heading. There may be lessons we can learn (Nalcor and Innu) from the experience of the Cree and Hydro Quebec.

Email: [redacted]
Telephone: [redacted]

S. 40(1)

Pages 15-31 have not been provided here as per section 22(1)(a). The two reports referenced are available online as follows. 1) "Large-scale impacts of hydro-electric development" (Rosenburg et al): www.nrcresearchpress.com. 2) "Summary of Acquired Knowledge": www.hydroquebec.com/sustainable-development/pdf/summary-1970-2000.pdf
Dear [Name]

RE: Muskrat Falls, Hydro Québec, and Separation of NL Hydro

Thank you for your email correspondence to Premier Ball in which you expressed concerns regarding the Muskrat Falls Project, discussions with Hydro-Québec, and the separation of Newfoundland and Labrador Hydro (NLH) from Nalcor’s unregulated activities. As Minister of Natural Resources, I am pleased to address these issues on behalf of Premier Ball.

With respect to your first concern regarding Muskrat Falls and discussions with Hydro-Québec, I can advise that we are not in negotiations with Hydro-Québec. Our focus is ensuring that books on the project are opened, and that the project gets back on track. That is why we hired independent international consulting firm, Ernst Young (EY), to thoroughly review the project cost and schedule, and have undertaken changes at Nalcor, including a new CEO, Stan Marshall. You would be aware that the recent announcement of cost increases in the project will have an impact on electricity rates. We have also committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power, and have directed Nalcor’s new CEO, Stan Marshall, to identify other opportunities to bring rates closer to those predicted at project sanction. Actions being considered include discussions with the federal government regarding an increase in its loan guarantee to cover the cost increases noted above.

In terms of Newfoundland and Labrador’s relationship with Quebec; it is important to note that we share common interests with respect to the development and export of clean, renewable electricity. Moreover, while Muskrat Falls will meet Newfoundland and Labrador’s domestic market requirements, a significant portion of other projects, including Gull Island, could be dedicated for export. Mr. Marshall has stated publicly that he is interested in talking with Hydro Quebec to determine if there is potential to work together on new electricity export opportunities. Once the Maritime Link and the transmission components related to the Muskrat Falls Project are completed, the island portion of the province will be connected to the North American grid for the first time via Labrador and Nova Scotia. As Quebec is a neighbouring jurisdiction, and represents one of Newfoundland and Labrador’s transmission routes to the United States, establishing good business relations with Hydro-Québec is a positive step that supports interconnection and advances our mutual interests in each other’s electricity resources.
As for your concerns regarding the establishment of NLH as a business unit separate from Nalcor’s unregulated operations, I can assure you that the intent of Mr. Marshall’s June 15, 2016, announcement was not to dismantle the company, but to clearly define NLH’s role as a regulated utility. Nalcor has evolved over the last ten years, growing from a single utility to a provincial energy corporation with six distinct business units. NLH is regulated by the Board of Commissioners of Public Utilities (PUB), and is mandated to deliver safe, reliable, least-cost electricity to customers. Separating NLH from Nalcor’s unregulated activities will provide greater protection and transparency for ratepayers, and ensure NLH is solely accountable and focused on its regulated activities.

I thank you for taking the time to outline your concerns regarding our province’s electricity industry.

Sincerely,

SIOBHAN COADY, MHA
St. John’s West
Minister

c. Hon. Dwight Ball, Premier
Dear [Redacted] – S. 40(1)

RE: Hydro-Quebec Court Challenges over Churchill Falls

Thank you for your recent email to Premier Ball in which you expressed concerns regarding the court challenges of the terms of the 1969 Power Contract and the interpretation of the renewal contract with Hydro-Quebec (HQ). As Minister of Natural Resources, I am pleased to address your concerns on behalf of the Premier.

Since its inception, the Power Contract has seen this province forego many billions of dollars in revenue. HQ earns about $1 billion per year while Nalcor earns about $20 million from the resale of electricity from Churchill Falls. The automatic renewal of the Power Contract took place on September 1, 2016; and for the next 25 years, HQ will pay 20 per cent less for electricity generated in our province.

As Minister of Natural Resources, my mandate is to develop the province’s resources for the maximum benefit of the people of Newfoundland and Labrador. Our government, in consultation with Nalcor, has concluded that the cost of litigation from a business perspective is relatively small compared to the enormous potential benefit that would result from a successful court challenge. I can assure you that all decisions related to Churchill Falls will be made with this in mind. Government and Nalcor will carefully weigh the cost of court cases to the province, keeping in mind the best way forward for Newfoundland and Labrador.

Once again, thank you for writing to express your opinion on this important matter.

Sincerely,

Note: pages 4-8 have been redacted in full under sections 34(1)(a)(i) and 35(1)(f).

SIOBHAN COADY, MHA
St. John’s West
Minister

c. Honourable Dwight Ball, Premier
Mr. Keith Hutchings  
MHA, Ferryland  
Official Opposition Critic, Department of Natural Resources  
Official Opposition Office  
5th Floor, East Block, Confederation Building

Dear Mr. Hutchings:

RE: Muskrat Falls Questions

Thank you for your August 1, 2016 letter posing a series of questions regarding the Muskrat Falls Project and related electricity sector issues.

Our government shares the sentiment expressed in your letter regarding openness and transparency. That is why we hired independent international consulting firm, EY to thoroughly review the remaining project cost and schedules. Our government inherited the project along with the schedule delays, lack of oversight and budget failures under the previous administration. When our government took office, we committed to controlling project costs and ensuring all the necessary steps are taken to identify and mitigate any remaining engineering and construction risks as the project proceeds; and our actions, to date, reflect that commitment.

We also appointed a highly qualified and proven utility leader as Nalcor’s new CEO, Mr. Stan Marshall. Our government is also in the process of appointing a new Nalcor Board of Directors that will be selected based on merit by the Independent Appointments Commission.

In addition, we have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power; and we have directed Mr. Marshall to identify other opportunities to bring rates closer to those predicted at project sanction.

The completion of your request involved several departments and Nalcor. Our responses to your 23 questions follow below, and I trust that we have responded to all of your questions.

Sincerely,

SIOBHAN COADY, MHA  
St. John’s West  
Minister

c: Honourable Dwight Ball, Premier
Questions and Answers

Q1: Please provide the detailed updated load forecast for the Island Interconnected System from 2016 - 2067. Please include all revised assumptions and information that was used to create this updated forecast. Please indicate what assumptions and information has changed since the 2012 sanction and original forecast.

Q2: Please specify the current forecasted demand of residential customers, commercial customers, and industrial customers, on both the island and in Labrador from 2016 - 2067. Please indicate why each of these independent demands has changed since the 2012 forecast and what information supported each demand change for residential, commercial and industrial customers.

A1 and A2: Please refer to the “A1-A2 Load & Price Forecast” below:
A1-A2 Load & Price Forecast
### ECONOMIC INDICATORS FORECAST - NLH Long Term Planning Forecast (2012)

**Annual Compound Growth Rates Relative to Year 2015**

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL Gross Domestic Product</td>
<td>0.1%</td>
<td>0.5%</td>
<td>0.6%</td>
</tr>
<tr>
<td>NL Personal Disposable Income</td>
<td>0.8%</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

**Cumulative Units Post 2015**

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL Housing Construction Starts</td>
<td>11,931</td>
<td>21,079</td>
<td>28,275</td>
</tr>
</tbody>
</table>

### ECONOMIC INDICATORS FORECAST - NLH Long Term Planning Forecast (May 2016)

**Annual Compound Growth Rates Relative to Year 2015**

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL Gross Domestic Product</td>
<td>-2.2%</td>
<td>-1.0%</td>
<td>-0.5%</td>
</tr>
<tr>
<td>NL Household Disposable Income</td>
<td>-2.6%</td>
<td>-0.8%</td>
<td>-0.2%</td>
</tr>
</tbody>
</table>

**Cumulative Units Post 2015**

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL Housing Construction Starts</td>
<td>5,170</td>
<td>11,120</td>
<td>18,695</td>
</tr>
</tbody>
</table>

**Notes:**
1. Growth rates reflect constant dollar GDP that excludes income earned by non-resident owners of Newfoundland mega-projects.
2. NLH May 2016 planning forecast is based on NL Budget Forecast, Spring 2016 and NL long term economic forecast, June 2015.

**Economic Forecast Source:** Department of Finance, Government of Newfoundland and Labrador

**Source:** Market Analysis Section, System Planning Department, Newfoundland and Labrador Hydro
### NLH Planning Load Forecast - Interconnected Island System

#### Economic and Utility Impacts

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Forecast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Domestic Product (2012, Index)</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Disposable Income (2012, Index)</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Real Estate (2012, Index)</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing Starts</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population (2012)</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Northern Rivers

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents (2012)</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Sales (2012)</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial Customers (2012)</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Service Customers (2012)</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td>150.0</td>
<td></td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Notes

1. Table May 2016 planning forecast is based on Inuit Akitaktoke budget forecasts, using $2012 values. Long term economic forecasts June 2015.
2. Adjusted GDP excludes small and medium enterprises.
3. Includes Inuit households, Power, and Natural Gas Utility customers.
4. Includes Capital Expenditure and Utility customers.
5. Excludes non-residential customers, retail energy sales, shore and area lighting sales and system disturbances.
6. Includes non-residential power and industrial customers.

### Source
Market Analysis Section, System Planning Department, Newfoundland and Labrador Hydro
### NLH Planning Load Forecast - Interconnected Island System

#### Island System Summary

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Utility Requirements (GWh)</td>
<td>5511</td>
<td>6537</td>
<td>6694</td>
<td>6656</td>
<td>6653</td>
<td>6543</td>
<td>6579</td>
<td>6631</td>
<td>6670</td>
<td>6717</td>
<td>6768</td>
<td>6821</td>
<td>6874</td>
<td>6928</td>
<td>6983</td>
<td>7038</td>
<td>7094</td>
<td>7150</td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>-0.9</td>
<td>-1.1</td>
<td>-0.9</td>
<td>-0.1</td>
<td>-1.3</td>
<td>0.5</td>
<td>0.8</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Total Industrial Requirements (GWh)</td>
<td>1393</td>
<td>1502</td>
<td>1531</td>
<td>1557</td>
<td>1563</td>
<td>1568</td>
<td>1568</td>
<td>1568</td>
<td>1568</td>
<td>1568</td>
<td>1568</td>
<td>1568</td>
<td>1568</td>
<td>1568</td>
<td>1568</td>
<td>1568</td>
<td>1568</td>
<td>1568</td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>2.7</td>
<td>3.6</td>
<td>4.1</td>
<td>4.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Transmission Load (GWh)</td>
<td>67</td>
<td>69</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>Total Island Requirements (GWh)</td>
<td>647</td>
<td>753</td>
<td>806</td>
<td>844</td>
<td>846</td>
<td>857</td>
<td>864</td>
<td>864</td>
<td>864</td>
<td>864</td>
<td>864</td>
<td>864</td>
<td>864</td>
<td>864</td>
<td>864</td>
<td>864</td>
<td>864</td>
<td>864</td>
</tr>
<tr>
<td>Growth Rate (%)</td>
<td>0.5</td>
<td>0.1</td>
<td>0.5</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Total Island Requirements (May 1998)</td>
<td>3254</td>
<td>3279</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
<td>3718</td>
</tr>
</tbody>
</table>

**Notes:**
1. Forecast energy requirements include all loads served by NLH customer generation, NLH own generation and non-NLH generation.
2. Total industrial and total island requirements include 50 Hz and 60 Hz loads.
3. Total island MWh requirements reflect average and peak demand conditions (50Hz operation).
4. Total island MWh requirements do not include related station service loads.

**NLH Comments with respect to NLH 2012 Planning Load Forecast:**

1. Long-term industrial annual energy requirements forecast is 302 GWh lower than forecast in 2012 and primarily reflects reduced requirements for nickel processing at Vale's Long Harbour facilities.
2. Corner Brook Pulp & Paper annual energy requirements reduced by 6 percent from 2012 Planning Load Forecast.
4. Combined annual energy requirements of Fraser and Vale at Long Harbour reduced by 30 percent from 2012 Planning Load Forecast.

**Source:** Market Analysis Section, System Planning Department, Newfoundland and Labrador Hydro
## May 2016

### NLH Planning Load Forecast - Interconnected Island System

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Utility Requirements (GWh)</th>
<th>Total Industrial Requirements (GWh)</th>
<th>Transmission Losses (GWh)</th>
<th>Total Island Requirements (GWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>6831</td>
<td>1393</td>
<td>247</td>
<td>8471</td>
</tr>
<tr>
<td>2017</td>
<td>6767</td>
<td>1500</td>
<td>247</td>
<td>8515</td>
</tr>
<tr>
<td>2018</td>
<td>6694</td>
<td>1575</td>
<td>237</td>
<td>8505</td>
</tr>
<tr>
<td>2019</td>
<td>6635</td>
<td>1597</td>
<td>232</td>
<td>8465</td>
</tr>
<tr>
<td>2020</td>
<td>6631</td>
<td>1588</td>
<td>227</td>
<td>8446</td>
</tr>
<tr>
<td>2021</td>
<td>6543</td>
<td>1588</td>
<td>276</td>
<td>8357</td>
</tr>
<tr>
<td>2022</td>
<td>6579</td>
<td>1560</td>
<td>226</td>
<td>8393</td>
</tr>
<tr>
<td>2023</td>
<td>6621</td>
<td>1588</td>
<td>227</td>
<td>8438</td>
</tr>
<tr>
<td>2024</td>
<td>6670</td>
<td>1598</td>
<td>227</td>
<td>8485</td>
</tr>
<tr>
<td>2025</td>
<td>6717</td>
<td>1588</td>
<td>228</td>
<td>8533</td>
</tr>
<tr>
<td>2026</td>
<td>6758</td>
<td>1588</td>
<td>229</td>
<td>8585</td>
</tr>
<tr>
<td>2027</td>
<td>6821</td>
<td>1588</td>
<td>229</td>
<td>8638</td>
</tr>
<tr>
<td>2028</td>
<td>6874</td>
<td>1588</td>
<td>230</td>
<td>8692</td>
</tr>
<tr>
<td>2029</td>
<td>6926</td>
<td>1588</td>
<td>231</td>
<td>8746</td>
</tr>
<tr>
<td>2030</td>
<td>6983</td>
<td>1588</td>
<td>231</td>
<td>8802</td>
</tr>
<tr>
<td>2031</td>
<td>7018</td>
<td>1588</td>
<td>222</td>
<td>8858</td>
</tr>
<tr>
<td>2032</td>
<td>7094</td>
<td>1588</td>
<td>233</td>
<td>8914</td>
</tr>
<tr>
<td>2033</td>
<td>7148</td>
<td>1588</td>
<td>233</td>
<td>8969</td>
</tr>
<tr>
<td>2034</td>
<td>7203</td>
<td>1588</td>
<td>234</td>
<td>9025</td>
</tr>
<tr>
<td>2035</td>
<td>7266</td>
<td>1588</td>
<td>235</td>
<td>9079</td>
</tr>
<tr>
<td>2036</td>
<td>7310</td>
<td>1588</td>
<td>236</td>
<td>9134</td>
</tr>
<tr>
<td>2037</td>
<td>7363</td>
<td>1588</td>
<td>238</td>
<td>9190</td>
</tr>
<tr>
<td>2038</td>
<td>7417</td>
<td>1588</td>
<td>240</td>
<td>9245</td>
</tr>
<tr>
<td>2039</td>
<td>7470</td>
<td>1588</td>
<td>242</td>
<td>9300</td>
</tr>
<tr>
<td>2040</td>
<td>7524</td>
<td>1588</td>
<td>244</td>
<td>9356</td>
</tr>
<tr>
<td>2041</td>
<td>7577</td>
<td>1588</td>
<td>246</td>
<td>9411</td>
</tr>
<tr>
<td>2042</td>
<td>7630</td>
<td>1588</td>
<td>248</td>
<td>9466</td>
</tr>
<tr>
<td>2043</td>
<td>7684</td>
<td>1588</td>
<td>249</td>
<td>9521</td>
</tr>
<tr>
<td>2044</td>
<td>7737</td>
<td>1588</td>
<td>251</td>
<td>9577</td>
</tr>
<tr>
<td>2045</td>
<td>7791</td>
<td>1588</td>
<td>253</td>
<td>9632</td>
</tr>
<tr>
<td>2046</td>
<td>7844</td>
<td>1588</td>
<td>255</td>
<td>9687</td>
</tr>
<tr>
<td>2047</td>
<td>7888</td>
<td>1588</td>
<td>257</td>
<td>9743</td>
</tr>
<tr>
<td>2048</td>
<td>7951</td>
<td>1588</td>
<td>259</td>
<td>9798</td>
</tr>
<tr>
<td>2049</td>
<td>8004</td>
<td>1588</td>
<td>261</td>
<td>9853</td>
</tr>
<tr>
<td>2050</td>
<td>8058</td>
<td>1588</td>
<td>263</td>
<td>9900</td>
</tr>
<tr>
<td>2051</td>
<td>8111</td>
<td>1588</td>
<td>264</td>
<td>9956</td>
</tr>
<tr>
<td>2052</td>
<td>8165</td>
<td>1588</td>
<td>266</td>
<td>10019</td>
</tr>
<tr>
<td>2053</td>
<td>8218</td>
<td>1588</td>
<td>268</td>
<td>10084</td>
</tr>
<tr>
<td>2054</td>
<td>8272</td>
<td>1588</td>
<td>270</td>
<td>10150</td>
</tr>
<tr>
<td>2055</td>
<td>8325</td>
<td>1588</td>
<td>272</td>
<td>10185</td>
</tr>
<tr>
<td>2056</td>
<td>8379</td>
<td>1588</td>
<td>274</td>
<td>10240</td>
</tr>
<tr>
<td>2057</td>
<td>8432</td>
<td>1588</td>
<td>276</td>
<td>10298</td>
</tr>
<tr>
<td>2058</td>
<td>8485</td>
<td>1588</td>
<td>277</td>
<td>10351</td>
</tr>
<tr>
<td>2059</td>
<td>8539</td>
<td>1588</td>
<td>279</td>
<td>10406</td>
</tr>
<tr>
<td>2060</td>
<td>8592</td>
<td>1588</td>
<td>281</td>
<td>10461</td>
</tr>
<tr>
<td>2061</td>
<td>8643</td>
<td>1588</td>
<td>283</td>
<td>10502</td>
</tr>
<tr>
<td>2062</td>
<td>8690</td>
<td>1588</td>
<td>284</td>
<td>10542</td>
</tr>
<tr>
<td>2063</td>
<td>8747</td>
<td>1588</td>
<td>285</td>
<td>10582</td>
</tr>
<tr>
<td>2064</td>
<td>8798</td>
<td>1588</td>
<td>287</td>
<td>10622</td>
</tr>
<tr>
<td>2065</td>
<td>8846</td>
<td>1588</td>
<td>288</td>
<td>10662</td>
</tr>
<tr>
<td>2066</td>
<td>8894</td>
<td>1588</td>
<td>289</td>
<td>10702</td>
</tr>
<tr>
<td>2067</td>
<td>8863</td>
<td>1588</td>
<td>291</td>
<td>10742</td>
</tr>
</tbody>
</table>

**Notes:**
1. Total utility requirements for 2016 through 2035 forecast using NLH econometric planning models.
2. Transmission losses include energy losses on 138/230 kV grid.
3. Total island energy requirements include 50 Hz and 60 Hz loads.

**Source:**
Market Analysis Section, System Planning Department
Newfoundland and Labrador Hydro
<table>
<thead>
<tr>
<th>Year</th>
<th>Total Utility Requirements (GWh)</th>
<th>Total Industrial Requirements (GWh)</th>
<th>Transmission Losses (GWh)</th>
<th>Total Labrador Requirements (GWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>637</td>
<td>1795</td>
<td>154</td>
<td>2587</td>
</tr>
<tr>
<td>2017</td>
<td>666</td>
<td>1768</td>
<td>157</td>
<td>2591</td>
</tr>
<tr>
<td>2018</td>
<td>673</td>
<td>1765</td>
<td>157</td>
<td>2595</td>
</tr>
<tr>
<td>2019</td>
<td>673</td>
<td>1765</td>
<td>157</td>
<td>2595</td>
</tr>
<tr>
<td>2020</td>
<td>668</td>
<td>1765</td>
<td>157</td>
<td>2589</td>
</tr>
<tr>
<td>2021</td>
<td>669</td>
<td>1765</td>
<td>157</td>
<td>2590</td>
</tr>
<tr>
<td>2022</td>
<td>671</td>
<td>1765</td>
<td>158</td>
<td>2592</td>
</tr>
<tr>
<td>2023</td>
<td>672</td>
<td>1765</td>
<td>157</td>
<td>2594</td>
</tr>
<tr>
<td>2024</td>
<td>674</td>
<td>1765</td>
<td>157</td>
<td>2596</td>
</tr>
<tr>
<td>2025</td>
<td>676</td>
<td>1765</td>
<td>157</td>
<td>2598</td>
</tr>
<tr>
<td>2026</td>
<td>678</td>
<td>1765</td>
<td>157</td>
<td>2600</td>
</tr>
<tr>
<td>2027</td>
<td>679</td>
<td>1765</td>
<td>157</td>
<td>2602</td>
</tr>
<tr>
<td>2028</td>
<td>681</td>
<td>1765</td>
<td>157</td>
<td>2603</td>
</tr>
<tr>
<td>2029</td>
<td>682</td>
<td>1765</td>
<td>157</td>
<td>2605</td>
</tr>
<tr>
<td>2030</td>
<td>684</td>
<td>1765</td>
<td>157</td>
<td>2606</td>
</tr>
<tr>
<td>2031</td>
<td>685</td>
<td>1765</td>
<td>158</td>
<td>2608</td>
</tr>
<tr>
<td>2032</td>
<td>687</td>
<td>1765</td>
<td>158</td>
<td>2609</td>
</tr>
<tr>
<td>2033</td>
<td>688</td>
<td>1765</td>
<td>158</td>
<td>2611</td>
</tr>
<tr>
<td>2034</td>
<td>689</td>
<td>1765</td>
<td>158</td>
<td>2612</td>
</tr>
<tr>
<td>2035</td>
<td>690</td>
<td>1765</td>
<td>158</td>
<td>2613</td>
</tr>
<tr>
<td>2036</td>
<td>692</td>
<td>1765</td>
<td>158</td>
<td>2615</td>
</tr>
<tr>
<td>2037</td>
<td>693</td>
<td>1765</td>
<td>158</td>
<td>2616</td>
</tr>
<tr>
<td>2038</td>
<td>694</td>
<td>1765</td>
<td>158</td>
<td>2617</td>
</tr>
<tr>
<td>2039</td>
<td>696</td>
<td>1765</td>
<td>158</td>
<td>2619</td>
</tr>
<tr>
<td>2040</td>
<td>697</td>
<td>1765</td>
<td>158</td>
<td>2620</td>
</tr>
<tr>
<td>2041</td>
<td>698</td>
<td>1765</td>
<td>158</td>
<td>2621</td>
</tr>
<tr>
<td>2042</td>
<td>699</td>
<td>1765</td>
<td>158</td>
<td>2622</td>
</tr>
<tr>
<td>2043</td>
<td>701</td>
<td>1765</td>
<td>159</td>
<td>2623</td>
</tr>
<tr>
<td>2044</td>
<td>702</td>
<td>1765</td>
<td>159</td>
<td>2624</td>
</tr>
<tr>
<td>2045</td>
<td>703</td>
<td>1765</td>
<td>159</td>
<td>2626</td>
</tr>
<tr>
<td>2046</td>
<td>705</td>
<td>1765</td>
<td>159</td>
<td>2627</td>
</tr>
<tr>
<td>2047</td>
<td>706</td>
<td>1765</td>
<td>159</td>
<td>2628</td>
</tr>
<tr>
<td>2048</td>
<td>707</td>
<td>1765</td>
<td>159</td>
<td>2630</td>
</tr>
<tr>
<td>2049</td>
<td>708</td>
<td>1765</td>
<td>159</td>
<td>2631</td>
</tr>
<tr>
<td>2050</td>
<td>709</td>
<td>1765</td>
<td>159</td>
<td>2632</td>
</tr>
<tr>
<td>2051</td>
<td>710</td>
<td>1765</td>
<td>159</td>
<td>2634</td>
</tr>
<tr>
<td>2052</td>
<td>711</td>
<td>1765</td>
<td>159</td>
<td>2635</td>
</tr>
<tr>
<td>2053</td>
<td>712</td>
<td>1765</td>
<td>159</td>
<td>2637</td>
</tr>
<tr>
<td>2054</td>
<td>714</td>
<td>1765</td>
<td>159</td>
<td>2638</td>
</tr>
<tr>
<td>2055</td>
<td>715</td>
<td>1765</td>
<td>159</td>
<td>2639</td>
</tr>
<tr>
<td>2056</td>
<td>716</td>
<td>1765</td>
<td>160</td>
<td>2641</td>
</tr>
<tr>
<td>2057</td>
<td>717</td>
<td>1765</td>
<td>160</td>
<td>2642</td>
</tr>
<tr>
<td>2058</td>
<td>719</td>
<td>1765</td>
<td>160</td>
<td>2643</td>
</tr>
<tr>
<td>2059</td>
<td>720</td>
<td>1765</td>
<td>160</td>
<td>2645</td>
</tr>
<tr>
<td>2060</td>
<td>721</td>
<td>1765</td>
<td>160</td>
<td>2646</td>
</tr>
<tr>
<td>2061</td>
<td>723</td>
<td>1765</td>
<td>160</td>
<td>2648</td>
</tr>
<tr>
<td>2062</td>
<td>724</td>
<td>1765</td>
<td>160</td>
<td>2649</td>
</tr>
<tr>
<td>2063</td>
<td>725</td>
<td>1765</td>
<td>160</td>
<td>2650</td>
</tr>
<tr>
<td>2064</td>
<td>726</td>
<td>1765</td>
<td>160</td>
<td>2652</td>
</tr>
<tr>
<td>2065</td>
<td>729</td>
<td>1765</td>
<td>160</td>
<td>2653</td>
</tr>
<tr>
<td>2066</td>
<td>730</td>
<td>1765</td>
<td>160</td>
<td>2654</td>
</tr>
<tr>
<td>2067</td>
<td>732</td>
<td>1765</td>
<td>161</td>
<td>2657</td>
</tr>
</tbody>
</table>

Notes:
1. Utility requirements sourced from NLH Spring 2016 NLH Rural Load Forecast.
2. Industrial forecast includes IOCC and energy requirements for Wabush Mines site reclamation.
3. Transmission losses include energy losses on 138/230 kV grid.
Q3: Please provide the projected electricity rates based on the new demand forecasts for all Identified users from, 2016 - 2030, and a break out of what is included in each rate (i.e. equity return, rate of return to Nalcor, projected sale of excess energy and all other elements which make up the electricity rate).

A3: Please refer to the “A3 Rates Projections” below. Residential rates are provided, which is consistent with the DG3 approach. These rates reflect the June 2016 project cost update, rate of return, and the Island Interconnected load forecast outlined on slide 10 of the June 24, 2016 technical update provided below in A4. The rates do not include mitigating actions such as redirecting export sales to reduce rates.
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

* HST excluded
Q4: Please provide the electricity rate transmission cost from Muskrat Falls to the Soldiers Pond Station; please provide the total cost of delivery from Muskrat Falls to Emera; please provide any changes in cost assumptions and related data to support these changes.

A4: This information is provided on page 9 in the June 24, 2016 Muskrat Falls technical briefing presentation below. If this slide does not address your questions, please let us know.
Muskrat Falls Project Update
Technical Briefing
June 24, 2016

Boundless Energy
Overview

- Muskrat Falls projected capital cost and schedule
- Unit energy cost projections for Muskrat Falls production
- Updated Island Interconnected load forecast
- Summary of Muskrat Falls production
- Muskrat Falls unit energy cost projections for NL Hydro (NLH)
- Domestic electricity rate projections
- Provincial equity requirements
Muskrat Falls Generation (MF)

- 824 megawatts; 4.9 terawatt hours/yr (TWh)
- Projected facilities costs:
  - Sanction $2.9B
  - June 2016 $4.8B
- Projected in service dates:
  - Sanction: first power Q4 2017; full power Q2 2018
  - June 2016: first power Q3 2019; full power Q2 2020
- Emera to receive 20% of energy for 35 years at no cost and an additional 5% during first five years, delivered during off-peak.

As of May 2016:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spent</td>
<td>$2.3B</td>
</tr>
<tr>
<td>Committed but not spent</td>
<td>$0.9B</td>
</tr>
<tr>
<td>Projected balance</td>
<td>$1.6B</td>
</tr>
</tbody>
</table>

LOWER CHURCHILL PROJECT
Labrador-Island Link (LIL)

- 1,100 km line from Muskrat Falls to Soldiers Pond
- 30 km across the Strait of Belle Isle (SOBI)
- SOBI completion by end of 2016
- Projected facilities costs:
  - Sanction $2.6B
  - June 2016 $3.4B
- Projected in service dates:
  - Sanction: Q2 2017
  - June 2016: Q2 2018
- Emera provides equity contribution of $0.6B based on current estimates to receive regulated utility rate of return

As of May 2016:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spent</td>
<td>$1.7B</td>
</tr>
<tr>
<td>Committed but not spent</td>
<td>$1.1B</td>
</tr>
<tr>
<td>Projected balance</td>
<td>$0.6B</td>
</tr>
</tbody>
</table>
Labrador Transmission Assets (LTA)

- Churchill Falls to Muskrat Falls
- Two, 250 km 315 kilovolt lines
- Projected facilities costs:
  - Sanction $692M
  - June 2016 $878M
- Projected in service dates:
  - Sanction: Q2 2017
  - June 2016: Q2 2018
- Completion of construction of the transmission line at end of 2016

As of May 2016:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spent</td>
<td>$665M</td>
</tr>
<tr>
<td>Committed but not spent</td>
<td>$104M</td>
</tr>
<tr>
<td>Projected balance</td>
<td>$109M</td>
</tr>
</tbody>
</table>
Maritime Link (Emera)

- Constructed, owned and operated by Emera for 35 years
- 500 MW capacity
- 170 km undersea link from Cape Ray, NL to Cape Breton, NS
- Projected facilities cost $1.58B
- Projected in service Q4 2017
- Nalcor has transmission rights to import/export power
Muskrat Falls Projected In-service Cost

[Diagram showing cost comparison between Sanction 2012 and Current, with breakdowns for Financing and Other, LIL, LTA, and MF]
Overall Project Cost Increase – Contributing Factors

- Original cost estimates were optimistic/overly aggressive
- Risks of the project were underestimated at the beginning
- Lack of experience of some contractors working in our harsh environment
- Early execution by some major contractors was poor
Unit Cost Projections
(For power delivered at Soldiers Pond)

Muskat Falls Unit Cost Projection by Project Component
(2021 - cents/kWh)

- MI
- ETA
- L/L
- Total = 15.87 cents/kWh

Muskat Falls Unit Cost Projection by Cost Category
(2021 - cents/kWh)

- Depreciation
- Interest
- Operating Costs
- Energy Net Income
- Nalcor Net Income
- Total = 15.87 cents/kWh
NL Hydro Island Interconnected Sales

Key Drivers:
- Less robust provincial economic outlook
- Higher electricity prices in the longer-term (including relative price to furnace oil)
- Lower provincial housing construction
- Lower industrial load

Note: May 2016 load forecast based on a domestic rate of 15.4 cents/kWh (17.7 cents/kWh after HST) in 2020 escalating at 2% thereafter.
## Muskrat Falls Energy Deliveries

<table>
<thead>
<tr>
<th>Year</th>
<th>MF Exports</th>
<th>NLH Export Sales</th>
<th>Emera</th>
<th>NLH Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>1,445</td>
<td>839</td>
<td>1,166</td>
<td>1,192</td>
</tr>
<tr>
<td>2022</td>
<td>1,379</td>
<td>658</td>
<td>1,166</td>
<td>1,438</td>
</tr>
<tr>
<td>2023</td>
<td>1,290</td>
<td>652</td>
<td>1,166</td>
<td>1,534</td>
</tr>
<tr>
<td>2024</td>
<td>1,197</td>
<td>691</td>
<td>1,170</td>
<td>1,583</td>
</tr>
<tr>
<td>2025</td>
<td>1,258</td>
<td>731</td>
<td>1,020</td>
<td>1,632</td>
</tr>
<tr>
<td>2030</td>
<td>908</td>
<td>715</td>
<td>927</td>
<td>2,092</td>
</tr>
<tr>
<td>2035</td>
<td>464</td>
<td>882</td>
<td>927</td>
<td>2,368</td>
</tr>
<tr>
<td>2040</td>
<td>18</td>
<td>1,049</td>
<td>930</td>
<td>2,645</td>
</tr>
</tbody>
</table>
Muskrat Falls Unit Cost Projections for NLH

<table>
<thead>
<tr>
<th>Year</th>
<th>MF Exports and Nalcor share of net income</th>
<th>MF cost to NLH net of exports &amp; net income</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>22.97</td>
<td>32.52</td>
</tr>
<tr>
<td>2022</td>
<td>19.97</td>
<td>29.92</td>
</tr>
<tr>
<td>2023</td>
<td>19.83</td>
<td>28.56</td>
</tr>
<tr>
<td>2024</td>
<td>20.53</td>
<td>27.33</td>
</tr>
<tr>
<td>2025</td>
<td>21.64</td>
<td>25.70</td>
</tr>
<tr>
<td>2030</td>
<td>22.23</td>
<td>19.06</td>
</tr>
<tr>
<td>2035</td>
<td>24.78</td>
<td>16.27</td>
</tr>
<tr>
<td>2040</td>
<td>27.52</td>
<td>15.36</td>
</tr>
</tbody>
</table>
Island Interconnected Domestic Rate Projections

Current wholesale and domestic rates are 7.8 cents/kWh and 11.9 cents/kWh (excluding HST), respectively.
# Electricity Rate Comparison (cents kWh)

<table>
<thead>
<tr>
<th>Province</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quebec</td>
<td>7.19</td>
</tr>
<tr>
<td>Manitoba</td>
<td>8.11</td>
</tr>
<tr>
<td>British Columbia</td>
<td>10.29</td>
</tr>
<tr>
<td>NL Island Domestic Rate</td>
<td>11.93*</td>
</tr>
<tr>
<td>Alberta</td>
<td>11.66</td>
</tr>
<tr>
<td>New Brunswick</td>
<td>12.30</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>14.37</td>
</tr>
<tr>
<td>Ontario</td>
<td>14.86</td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>15.62</td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>16.03</td>
</tr>
</tbody>
</table>

*Current average domestic rate based on average consumption of 1,517 kWh before HST.

Note: Rates are taken from a Hydro Quebec survey and are based on April 1, 2015 rates without tax and average monthly consumption of 1,000 kWh (with the exception of the NL Island Domestic Rate).
Provincial Equity Requirements for MF Project to 2020

- Prior: $1,584
- 2016/17: $1,354
- 2017/18: $1,240
- 2018/19: $815
- 2019/20: $612

LOWER CHURCHILL PROJECT

nalcor energy
Holyrood Generating Station
When Muskrat Falls was sanctioned, the Holyrood Generating Station had a total generating capacity of 490 MW and generated between 15% - 20% of the island's electricity supply. At peak production, in the winter months, it would burn 18,000 barrels of fuel per day. In 2011, this facility cost $135 Million in fuel alone. In addition to the cost associated with maintaining the aging Holyrood Generating Station, it is a large emitter of Greenhouse Gases and at some future date may be subject to carbon tax for these emissions thus adding additional operation costs. Though the decommissioning of Holyrood and replacing the energy with power generated at Muskrat Falls, the Board of Nalcor and the Government of NL projected a financial, environmental, and regulatory benefit to the project.

Q5: Please provide data on the current status of the Holyrood Generating Station. In specific, the current annual generating capacity, specific cost of current and future capital upgrades in accordance with the projected life cycle of the facility, the annual operational costs of the station, and the date of decommissioning the facility.

A5: Current annual generating capacity:

AMEC was engaged in August 2016 to analyze Holyrood unit inspection data through the summer and refine the unit capacity ratings. The outcome of this review resulted in Units 1 & 2 being rated to 170 MW after their maintenance outages, while Unit 3 was reduced 10% to 135MW. This totals 475 MW from the Holyrood plant Inspection work on unit 3 continues this fall to provide additional data and possibly increase its rating.

For annual energy available from Holyrood the ESRA Final Report identifies 2420 GWh per year. The 2420 GWh per year outlined in the ESRA Final Report is notably higher than the forecast production requirements as documented in the 2017 Capital Budget Application (see table below).

Table 1: Holyrood Operating Requirements 2016-2021
## Holyrood Production and Island Interconnected Load
### 2016-2021

<table>
<thead>
<tr>
<th>Year</th>
<th>Holyrood Net Production (GWh)</th>
<th>Total Unit Operating Hours</th>
<th>Holyrood Capacity Factor (%)</th>
<th>Total Island Interconnected Load (GWh)</th>
<th>Holyrood Percentage of Total Load (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>1,685</td>
<td>16,515</td>
<td>41</td>
<td>7,112</td>
<td>24</td>
</tr>
<tr>
<td>2017</td>
<td>1,481</td>
<td>17,123</td>
<td>36</td>
<td>7,146</td>
<td>21</td>
</tr>
<tr>
<td>2018</td>
<td>902</td>
<td>9,405</td>
<td>22</td>
<td>7,152</td>
<td>13</td>
</tr>
<tr>
<td>2019</td>
<td>562</td>
<td>5,782</td>
<td>14</td>
<td>7,109</td>
<td>8</td>
</tr>
<tr>
<td>2020</td>
<td>283</td>
<td>2,879</td>
<td>7</td>
<td>7,102</td>
<td>4</td>
</tr>
<tr>
<td>2021</td>
<td>210</td>
<td>1,911</td>
<td>5</td>
<td>7,113</td>
<td>3</td>
</tr>
</tbody>
</table>

**Notes:**
- Load Forecast for 2016 as per March 2015 OLF.
- Load Forecast for 2017-2021 as per May 2015 Initiation LF.

Specific cost of current and future capital upgrades in accordance with the projected life cycle of the facility:

Capital budget requirements are as outlined below for the 2017 to 2021 period. Projects planned for the pending five years focus on assessments and assets critical to sustain production and site operations as long as required, and those assets with life extending beyond the end of generation, they include:

- $5.0 million for the installation of a plant heating system;
- $4.6 million to replace Stage II Electrical Distribution Equipment; and
- $7.1 million for the rewind of Unit 3 generator stator.

Planned expenditures for the five year period total $46.5 million.

2017: $10,166,200  
2018: $8,636,700  
2019: $11,190,300  
2020: $14,152,100  
2021: $2,334,800

Annual operational costs of the station:
Average operating costs for the Holyrood Thermal Generating Station are typically $22M per year. 2015 annual operating costs totaled $30,542,583 (with increases mostly attributable to increased work scope from equipment inspections, repairs and reliability improvement analysis
to support ongoing production and winter readiness plans, as well as leasing costs for black start diesels).

The operating forecast for 2016 is $22,755,427.

The date of decommissioning the facility: Please see question 6.

Q6: Given the delays in the Muskrat Falls project schedule, what is the long term plan for Holyrood, including timelines?

A6: Generation from the Holyrood Thermal Plant will start to reduce once the high voltage direct current interconnection is complete and proven. The units at Holyrood will start to be placed in standby as the systems are proven to be ready for reliable service. The timing of the final decision on the shutdown and repurposing of the Holyrood plant will be made once commissioning of all infrastructure is completed and reliable service has been demonstrated. This is anticipated to occur in the 2020-2021 timeframe.

Muskrat Falls Project Capital Costs

In June 2016, Nalcor provided new timelines and cost estimates for the entire project. These costs as compared to the project estimates at the time of sanctioning are outlined in the following table:

<table>
<thead>
<tr>
<th></th>
<th>Cost at Sanction</th>
<th>Cost - June 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Project</td>
<td>$7.4 Billion</td>
<td>$11.4 Billion</td>
</tr>
<tr>
<td>Labrador Transmission Assets</td>
<td>$692 Million</td>
<td>$878 Million</td>
</tr>
<tr>
<td>Labrador - Island Link</td>
<td>$2.6 Billion</td>
<td>$3.4 Billion</td>
</tr>
<tr>
<td>Muskrat Falls Generation Station</td>
<td>$2.9 Billion</td>
<td>$4.8 Billion</td>
</tr>
<tr>
<td>Financing and Other Costs</td>
<td>$1.2 Billion</td>
<td>$2.3 Billion</td>
</tr>
</tbody>
</table>

Several updates on the cost and schedule have been given over the past four years.

Q7: Please provide what exactly represents the additional cost as contained in each category above when comparing the cost at sanction to what was released in June 2016.

A7: EY’s April 2016 interim review of Muskrat Falls project cost, schedule and related risk highlighted key factors relating to increased costs, including:

- the Muskrat Falls generation contract for powerhouse and intake area civil construction was significantly behind schedule which will have material impacts on cost and schedule;
- the contingency level was low for current stage of completion of the project; and
- there was a risk of multiple-month delay to completion of the HVdc transmission line due to delivery challenges and risks associated with the remaining scope.
EY’s interim report is posted online at http://www.gov.nl.ca/MFoversight/pdf/EYCostScheduleRisks_Apr.pdf

The June 2016 project update was reflective of EY’s findings, with the following primary factors influencing cost changes since 2012:

- Contractor performance and additional project management execution primarily at the Muskrat Falls generating site;
- Construction design enhancements/ adjustments to various generation and transmission components to ensure optimal design, efficiency and long-term reliability;
- Competitive Market factors (e.g. increasingly competitive labour market forces which have influenced labour availability and impacted contractor bids. These labour market realities are not unique to the Muskrat Falls Project but have affected the construction industry overall).

Q8: Please provide the detailed assumptions, calculations, and rationales that the June 2016 cost is based upon.

A8: The detailed assumptions and calculations for the June 2016 cost estimate of $9.1 billion is commercially-sensitive information. Information on the capital and financial costs are outlined in the June 24, 2016 Muskrat Falls technical briefing presentation in A4 above.

Q9: Does the estimated change in financing and other costs include or exclude the possibility of additional loan guarantee by the Federal government?

A9: The June 2016 estimate excludes any benefits that would be achieved from an enhanced Federal Loan Guarantee.

Q10: What is the current productivity level of Astaldi regarding the placement of concrete in the generating facility and other aspects over the last quarter?

A10: The following table provides the volume of concrete placed by Astaldi in 2016 and cumulative to date.

<table>
<thead>
<tr>
<th>Month</th>
<th>Concrete Placed per Month (m³)</th>
<th>Cumulative Concrete Placed (m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-2016</td>
<td>0</td>
<td>150,248</td>
</tr>
<tr>
<td>Feb-2016</td>
<td>0</td>
<td>150,248</td>
</tr>
<tr>
<td>March-2016</td>
<td>5,136</td>
<td>155,384</td>
</tr>
<tr>
<td>April-2016</td>
<td>8,621</td>
<td>164,005</td>
</tr>
<tr>
<td>May-2016</td>
<td>16,114</td>
<td>180,119</td>
</tr>
<tr>
<td>June-2016</td>
<td>9,937</td>
<td>190,056</td>
</tr>
<tr>
<td>July-2016</td>
<td>12,582</td>
<td>202,168</td>
</tr>
<tr>
<td>Aug-2016</td>
<td>14,205</td>
<td>216,843</td>
</tr>
</tbody>
</table>
Q11: Please provide information regarding the volume of concrete placed, by month, for the last year for Astaldi, and the placement targets, by month, for the future of the project until completion.


In the best interest of the Muskrat Falls Project and the province’s investment in this development, Nalcor Energy recently negotiated a bridge agreement with Astaldi within 2016. This agreement lays out firm production targets, expectations of the contractor, and financial incentives over the next several months to continue construction progress on the powerhouse and intake at Muskrat Falls. The financial terms of the agreement have been reflected in the June 2016 capital cost forecast for the Muskrat Falls Project. Nalcor is continuing to meet with and hold discussions with Astaldi in an effort to negotiate a final commercial agreement by the end of 2016 for completion of their full work scope through project completion.

This bridge agreement is a positive step toward reaching a final agreement that will see the continued progress of work by Astaldi in the powerhouse and intake at Muskrat Falls. As long as the contractor meets our performance expectations, we are willing to work with Astaldi and continue negotiations. LCP is focused on achieving the best plan forward for the completion of construction on the powerhouse and intakes at Muskrat Falls.

Nalcor is continuing to hold discussions with Astaldi in an effort to negotiate a final commercial agreement by the end of 2016 for completion of their full work scope. While these negotiations continue, details of the bridge agreement, including production targets for Astaldi, will remain confidential.

Relationship with the Federal Government
In December 2012, the Provincial and Federal Governments signed a loan guarantee agreement. This loan guarantee, provided by the Federal Government, would cover the project cost of $6.3 billion worth of borrowing thus allowing a savings of approximately $1 billion in debt servicing related costs.

Q12: Has the federal government been approached to provide an additional loan guarantee? If so, what amount has been requested and what is the estimated savings this would achieve on the financing costs. Are these reduced financing costs included in the new project estimates accounted In June 2016?

A12: The Provincial Government has approached the Federal Government regarding an enhanced federal loan guarantee for the Muskrat Falls Project. Our discussions are ongoing and we look forward to providing full details when we conclude our discussions.

Borrowing
On June 24, 2016 as a part of the Muskrat Falls project update, Nalcor released the Provincial Equity Requirements for the project up to, and including, 2019/2020. These

Regarding this required equity, the Finance Minister said "I can assure people that the announcement on Friday (June 24) by Mr. Marshall certainly is concerning from the projects prospective but from the budget and the treasury's perspective, we had made certain assumptions in April and I feel fairly confident that those assumptions are in line with what Mr. Marshall announced on Friday (June 24) and we will continue to monitor that."

Q13: Please provide the detailed April budget assumptions that the Finance Minister referenced above and used to calculate the borrowing requirements contained in the 7 year Budget 2016 outlook as related to the Muskrat Falls project?

A13: The Borrowing assumptions relating to the Muskrat Falls Project for borrowing purposes were the Equity requests from Nalcor, summarized as follows:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrowing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nalcor Equity Request</td>
<td>1,313.0</td>
<td>558.0</td>
<td>111.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Additionally, based on discussions with Nalcor, with respect to the status of their Quantitative Risk Assessment which was still ongoing at that time, the following "Prudence" adjustments were added to the borrowing program:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrowing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prudence Contingency</td>
<td>350.0</td>
<td>535.0</td>
<td>535.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Consequently, total borrowings available to support the Muskrat Falls project that are reflected in the seven (7) year forecast are as follows:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nalcor Equity Budget</td>
<td>1,313.0</td>
<td>558.0</td>
<td>111.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Borrowing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prudence Contingency</td>
<td>350.0</td>
<td>535.0</td>
<td>535.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total available in Budget</td>
<td>1,663.0</td>
<td>1,093.0</td>
<td>646.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Q14: Please provide the amounts budgeted in each fiscal year, in the current government's 7 year forecast released as a part of Budget 2016, for capital investment and or financing of any borrowing into the Muskrat Falls project?

A14: The amounts budgeted in each fiscal year relating to Nalcor are as follows:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dividends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Equity Contribution)</td>
<td>(1,313.0)</td>
<td>(558.0)</td>
<td>(111.0)</td>
<td>34.0</td>
<td>481.0</td>
<td>501.0</td>
</tr>
</tbody>
</table>
Ratepayers: The Cost of Electricity
According to Scotiabank's "Fiscal Pulse: Muskrat Falls Project Update" as released on June 28, 2016, domestic electric rates are estimated to be 21.4 cents per kilowatt hour in 2021. This is about 6.3 cents per hour more than projected when Muskrat Falls was sanctioned.

In November 2012, the Department of Natural Resources stated that without the development of Muskrat Falls, rates would increase by 38% between 2016 and 2030. This was attributed to the dependency on oil based products in long term energy consumption over the life cycle of Muskrat Falls. This report also stated that through developing Muskrat Falls, the cost of power would only increase by 18% over the same time period.

Q15: Is Nalcor and the Department of Natural Resources in agreement with this estimated cost per kilowatt hour?

A15: As outlined above in A4 June 24, 2016 Muskrat Falls Technical Briefing, slide 13 of the technical briefing presentation on June 24, 2016, the estimated domestic electricity rate in 2021 is 21.4 cents/kWh before HST.

Q16: What is the updated cost estimate for residential energy rates from 2017 – 2030? What assumptions and information is being used to calculate this cost?

A16: Please see below for estimated domestic electricity rates (excluding HST) from 2017-2030. These rates are calculated based on the June 24, 2016 cost estimate for the Muskrat Falls project of $9.1 billion (11.4 billion including financing and other costs) and the Island Interconnected load forecast outlined on slide 10 in the technical briefing presentation. These rates are unmitigated and therefore are not reduced by Muskrat Falls export sales or any other potential mitigation measure.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity rate (excluding HST)</td>
<td>21.0</td>
<td>21.0</td>
<td>21.7</td>
<td>18.8</td>
<td>21.4</td>
<td>21.7</td>
<td>22.2</td>
<td>22.5</td>
<td>22.6</td>
<td>22.9</td>
<td>23.0</td>
<td>23.1</td>
<td>23.6</td>
<td>23.7</td>
</tr>
</tbody>
</table>

Q17: What efforts are being undertaken to ensure that electricity is affordable for the ratepayers of the province?

This government is committed to controlling project costs and ensuring all the necessary steps are taken to identify and mitigate any remaining engineering and construction risks as the project proceeds. In addition, we have committed to offset electricity rate increases associated with the Muskrat Falls Project through the sale of excess power; and we have directed Mr. Marshall to identify other opportunities to bring rates closer to those predicted at project sanction.

On June 24, 2016, Nalcor CEO, Stan Marshall provided an update on Muskrat Falls Project. During this update, Mr. Marshall indicated he would focus on a number of options over the next four years to maximize the benefit and reduce the cost of the Muskrat Falls Project. Mr. Marshall highlighted options including exploring revenue options, the business model, business
relationships, resource utilization, and the potential for a larger loan guarantee from the federal government to reduce borrowing costs.

**Excess Energy**
In the fall of 2015, it was suggested by the then CEO of Nalcor in a report to government that there was the potential for $3.3 Billion in electricity export revenue that was not counted in the project’s finances.

**Q18: What is the Department of Natural Resources’ and Nalcor’s current viewpoint regarding the export of excess power? How much power is expected to be exported over the next 35 years and at what rates? What will be the cost and revenue from the export of excess energy?**

**A18:** We are committed to maximizing the value of the province’s energy assets for domestic use and for export. Nalcor actively markets and sells our available excess energy to external customers via spot markets. The attachment represents the current forecast for surplus energy and outlook for electricity prices. We also continue to explore other potential options to export Newfoundland and Labrador’s surplus electricity, and interconnection to the North American grid will open up additional opportunities.

Please refer to A18 Forecasted Excess Energy below.
### A18Forecasted Excess Energy

<table>
<thead>
<tr>
<th>Energy Available for Export</th>
<th>2020</th>
<th>2023</th>
<th>2025</th>
<th>2027</th>
<th>2029</th>
<th>2031</th>
<th>2033</th>
<th>2035</th>
<th>2037</th>
<th>2039</th>
<th>2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Export Sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MWh Revenue (Event/Season)</td>
<td>123</td>
<td>125</td>
<td>123</td>
<td>119</td>
<td>113</td>
<td>143</td>
<td>118</td>
<td>101</td>
<td>119</td>
<td>154</td>
<td>109</td>
</tr>
</tbody>
</table>
Q19: Has the total net revenue from the sale of excess energy been factored into the project's finances? Please demonstrate where this is factored in and the impact on the cost of the project and domestic power rates in this province.

A19: No, the revenue from sales of energy in excess of Newfoundland and Labrador Hydro's base block entitlement (under Schedule 2 of the Power Purchase Agreement) was not factored into the estimated domestic electricity rates released on June 24, 2016 or the project cost update of $9.1 billion.

**Hydro Quebec**

**Q20:** Is the current government exploring the option of selling excess energy through Hydro Quebec? Have any negotiations commenced with Hydro Quebec?

A20: Nalcor has been already selling excess energy in Labrador using Hydro Quebec's transmission system for several years – this is not new. The company continues to explore opportunities with multiple customers to enhance the value of energy that is surplus to the province's needs.

Neither the Government of Newfoundland and Labrador nor Nalcor Energy are involved in discussions with Hydro Quebec on the Muskrat Falls Project.

**Q21:** Have any officials or representatives of Nalcor, the Department of Natural Resources, the Department of Finance, or the Premier's Office engaged in any discussion regarding the sale or disposal of NL Hydro assets?

A21: No. Officials or representatives of the present Government have not engaged in discussions to sell or dispose of NL Hydro assets.

**EY Review of Project Cost, Schedule and Related Risk**

On April 5, 2016 Ernst & Young submitted an interim report to the Muskrat Falls Oversight Committee. At this time both Ernst & Young and the Minister of Natural Resources indicated that work would continue and that a final report would follow.

**Q22:** Has a final report been received by the Department of Natural Resources or by the Muskrat Falls Oversight Committee? If so, please provide a copy of this report.

**Q23:** What was the final cost of the EY review, inclusive of the interim review, final review and any other associated work surrounding the oversight of the Muskrat Falls project?

A22/A23: The April 8, 2016 EY review of project costs schedule and related risks interim report was received and made public by government on April 12, 2016. The final EY report has not been received by the Department of Natural Resources or the Oversight Committee at this time. Timing for completing the final report is contingent upon conclusion of a final agreement.
between Nalcor and contractor Astaldi. The final cost of EY’s work will be calculated when work on EY’s final report is complete.